Relays & Solenoids

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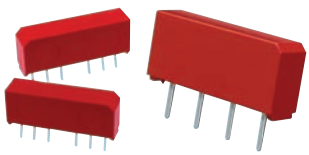
Reed Relays - Coto

Reed - SIL

9000 Series



Model 9002
H = 3.18, W = 19.3, D = 5.6mm

Model 9001 & 9007
H = 7.6, W = 19.3, D = 5.08mm

Coil suppresion diode option protects coil drive circuits
9002 version with coaxial shield for 50Ω impedance and switching of fast rise time digital pulses

- Hermetically sealed contacts for long life
- High dielectric strength
- High speed switching
- High insulation resistance
- Moulded thermoset body on integral lead frame
- **CSA** Approved and **UL** Recognised

Model	**9001, 9002**	**9007**
Switch power (max)	10W	10W
Switch voltage (max)	200V	200V
Switching current (max)	500mA	500mA
Switch carry current (max)	1.5A	1.0A
Contact resistance (max)	125mohm	200mohm
Insulation resistance (Min)		
Time, operate/release ms (max)	0.35/0.10	0.50/0.20
Life (Typical)	1000 x 10^6 operations	100 x 10^6 operations
Temperature, operating	-20 to +85°C	-20 to +85°C

Mftrs. List No.	Order Code	Feature	Mftrs. List No.	Order Code	Feature
9001-05-00	108-1678		9007-12-01	108-1623	Diode
9001-05-01	108-1617	Diode	9001-12-00	108-1679	
9001-05-02	108-1618	Form B contacts	9002-05-00	108-1680	
9001-12-01	108-1619	Diode	9002-12-00	108-1681	
9002-05-01	108-1620	Diode	9007-05-00	108-1682	
9007-05-01	108-1622	Diode	9007-12-00	108-1683	

418376

COIL V dc	COIL Ω ±10%	Order Code	Price Each 1+	10+	50+	100+	250+
Model 9001							
5	500	**108-1678**					
5	500	**108-1617**					
5	500	**108-1618**					
12	1K	**108-1679**					
12	1K	**108-1619**					
Model 9002							
5	500	**108-1680**					
5	350	**108-1620**					
12	1K	**108-1681**					
Model 9007							
5	500	**108-1682**					
5	500	**108-1622**					
12	1K	**108-1683**					
12	1K	**108-1623**					

Reed - Surface Mount

9800 Series

- 3 package styles available: Gull wing and J-lead
- Hermetically sealed contacts for long life
- High insulation resistance
- Coaxial shield for 50Ω impedance
- RF and fast rise time switching up to 6GHz
- External magnetic shield

Model 9802 J-Lead - No shield fitted
Gull wing - H = 4.31, W = 11.68, D = 4.95mm
J-Lead - H = 4.82, W = 11.18, D = 4.95mm

Model	**9802**	**9814**	**9852**
Switch power (max)	3W	3W	3W
Switch voltage (max)	100V	100V	100V
Switching current (max)	250mA	250mA	250mA
Switch carry current (max)	0.5A	0.5A	0.5A
Contact resistance (max)	125mohm	125mohm	125mohm
Insulation resistance (Min)			
Time, operate/release ms (max)	0.25/0.05	0.25/0.05	0.25/0.05
Life (Typical) - Operations	250 x 10^6	1000 x 10^6	100 x 10^6 (N/C)
Temperature, operating	-20 to +85°C	-20 to +85°C	-20 to +85°C

Mftrs. List No.	Order Code	Package	Mftrs. List No.	Order Code	Package
9802-05-20	108-1633	J-Lead	9852-05-00	108-1693	Gull wing
9814-05-00	108-1691	Gull wing			

418411

COIL V dc	COIL Ω ±10%	Order Code	Price Each 1+	10+	50+	100+	250+
Model 9802 - SPST							
5	150	SMD **108-1633**					
Model 9814 - SPST							
5	150	SMD **108-1691**					
Model 9852 - SPDT							
5	110	SMD **108-1693**					

Reed - Miniature SIL

9091

Model 9091
H = 6.98, W = 15.24, D = 3.81mm

- Hermetically sealed contacts for long life
- High speed switching
- High insulation resistance
- Moulded thermoset body on integral lead frame
- Model 9091 **UL** Recognised

Coil suppresion diode option protects coil drive circuits
Magnet shield reduces interaction

Model	**9091**		
Switch power (max)	10W	Contact resistance (max)	125mohm
Switch voltage (max)	200V	Insulation resistance (Min)	
Switching current (max)	500mA	Time, operate/release ms (max)	0.5/0.3
Switch carry current (max)	1.5A	Life (Typical)	500 x 10^6 operations
		Temperature, operating	-20 to +85°C

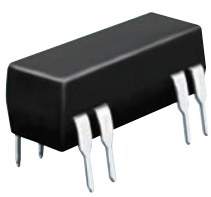
Mftrs. List No.	Order Code	Feature	Mftrs. List No.	Order Code	Feature
9091-05-00	108-1687		9091-12-01	108-1626	Diode
9091-05-01	108-1625	Diode			

418401

COIL V dc	COIL Ω ±10%	Order Code	Price Each 1+	10+	50+	100+	250+
Model 9091 - SPST							
5	500	**108-1687**					
5	500	**108-1625**					
12	1K	**108-1626**					

Reed Relay - DIL

8L Series



- Drop-in low cost replacement for industrial standard DIL packages
- Moulded thermoset body on integral lead frame design
- Hermetically sealed contacts

Model 8L DIL package
H = 6.6, W = 19.5, D = 7.62mm

Model	**8L01 & 8L02**	**8L41**
Switch power (max)	10W	3W
Switch voltage (max)	200V	100V
Switching current (max)	500mA	250mA
Switch carry current (max)	1.0A	0.5A
Contact resistance (max)	150mohm	200mohm
Insulation resistance (Min)		
Time, operate/release ms (max)	0.5/0.5	1.0/1.0
Life (Typical) operations	500 x 10^6	100 x 10^6
Temperature, operating	-20 to +85°C	-20 to +85°C

Mftrs. List No.	Order Code	Feature	Mftrs. List No.	Order Code	Feature
2200-2301	108-1643	Electrostatic shield	8L02-05-11	108-1668	Electrostatic shield and Diode
8L01-05-001	108-1659		8L41-05-001	108-1672	
8L01-05-011	108-1660	Diode	8L41-05-011	108-1673	Diode
8L01-12-011	108-1662		8L41-05-111	108-1674	Electromagnetic shield and Diode
8L01-12-101	108-1663	Diode	8L41-12-001	108-1675	
8L02-05-00	108-1666		8L41-12-011	108-1677	Diode

Reed Relays - Coto - continued

Reed Relay - DIL - continued

8L Series - continued

418458

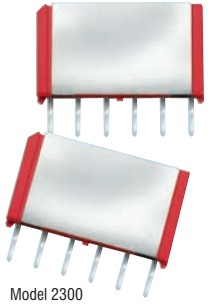
COIL V dc	COIL Ω ±10%	Order Code	Price Each 1+	10+	50+	100+	250+
Model 8L01 - SPST							
5	500	**108-1659●**					
5	500	**108-1660●**					
12	500	**108-1662●**					
12	500	**108-1663●**					
Model 8L02 - DPST							
5	200	**108-1666●**					
5	200	**108-1668●**					
Model 8L41 - SPDT							
5	200	**108-1672●**					
5	200	**108-1673●**					
5	200	**108-1674●**					
12	500	**108-1675●**					
12	500	**108-1677●**					

Reed Relay

2200 and 2300 Series

Model 2200

H = 5.72, W = 20.57, D = 5.33mm



Model 2300

H = 9.4, W = 20.57, D = 5.33mm

- Very small footprint
- High reliability
- Hermetically sealed contacts for long life
- Epoxy coated steel shell provides magnetic shielding

Model	2200 1 Form A 2301& 2302	2200 1 Form C	2204	2333 and 2341	2342
Switch power (max)	10W	3W	10W	10W	3W
Switch voltage (max)	200V	100V	200V	200V	100V
Switching current (max)	500mA	250mA	500mA	500mA	250mA
Switch carry current (max)	1.0A	0.5A	1.0A	1.0A	0.5A
Contact resistance (max)	100mohm	150mohm	100mohm	100mohm	200mohm
Insulation resistance (Min)					
Time, operate/release ms (max)	0.5/0.1	1/2	0.5/0.1	0.5/0.1	1.5/2.0
Life (Typical) operations	500 x 10^6	500 x 10^6	500 x 10^6	500 x 10^6	100 x 10^6
Temperature, operating	-20 to +85°C	-20 to +85°C	-20 to +85°C	-20 to +85°C	-20 to +85°C

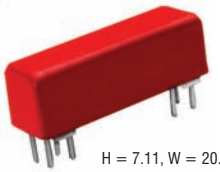
Mftrs. List No.	Order Code	Feature	Mftrs. List No.	Order Code	Feature
2204-05-411	108-1646	Electrostatic shield	2341-05-020	108-1653	Coaxial shield
2204-12-301	108-1648		2341-12-000	108-1654	
2211-12-301	145-4986		2342-05-000	108-1657	

418420

COIL V dc	COIL Ω ±10%	Order Code	Price Each 1+	10+	50+	100+	250+
Model 2200 - SPST							
5	370	**108-1646●**					
12	1.5K	**108-1648●**					
Model 2200 - 1 Form C							
12	1.5K	**145-4986●**					
Model 2300							
SPDT							
5	230	**108-1653●**					
12	1K	**108-1654●**					
DPDT							
12	1K	**108-1658●**					

Reed Relay

2900 Series



- Very small size combined with high reliability
- High Insulation Resistance
- Hermetically sealed contacts for long life
- Epoxy coated steel shell provides magnetic shielding
- Coaxial Shield for 50R impedance and switching of fast rise time digital pulses

H = 7.11, W = 20.82, D = 6.35mm

Switch power (max)	3W	Insulation resistance (Min)	
Switch voltage (max)	150V	Time, operate/release ms (max)	1/2
Switching current (max)	250mA	Life (Typical) operations	100 x 10^6
Switch carry current (max)	1.0A	Temperature, operating	-20 to +85°C
Contact resistance (max)	150mohm		

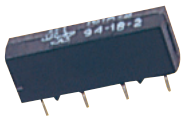
Mftrs. List No.	Order Code	Mftrs. List No.	Order Code
2911-05-321	132-6198	2911-12-321	132-6199

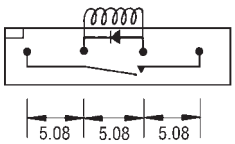
456016

COIL V dc	COIL Ω ±10%	Order Code	Price Each 1+	10+	25+	50+	100+
Model 2900 - SPDT, with Co-axial Shield							
5	230	**132-6198●**					
12	1.5K	**132-6199●**					

Reed Relays - Hamlin

Dry Reed, SIL





Single pole normally open reed relays in single-in-line epoxy moulded package. Slim package allows relays to be mounted on 0.2" centres. Protection diode incorporated.

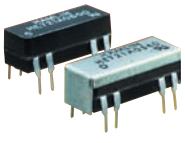
Switch voltage (max)	100V*	Contact resistance (max)	0.2Ω
Switch current (max)	0.5A	Operate/Release	0.5ms
Switch power (max)	10W	Insulation resistance	10GΩ
Hold off voltage (min)	250V	*200V for Hamlin types	

622633

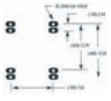
COIL Volts	COIL Ω	Mftrs. List No.	Order Code	Price Each 1+	25+	100+	250+	500+
3.75-10	500	HE3621A0510	**956-1927●**					
8-18	1k	HE3621A1210	**956-1935●**					
16-40	2.15k	HE3621A2410	**956-1943●**					

Reed - DIL

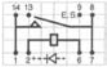
HE 700 Series



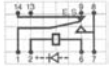
H = 7.5, W = 19.5, D = 7.24mm



PCB layout



SPST Schematic diagram



SPDT Schematic diagram

- Low coil power consumption
- Hermetically sealed, immune to environmental effects
- Standard Dual In Line package
- Internal suppression diode
- **UL** recognised (file E47258)

	SPST NO	SPDT CO
Switch power W (max)	10	5
Switch voltage V dc (max)	200	175
Switching current A (max)	500	250
Switch carry current A (max)	1.2	1.5
Contact resistance mR (max)	150	200
Insulation resistance MR		
Time, operate/release ms (max)	1.0/1.0	1.0/1.0
Temperature, operating °C	-40 to +85	-40 to +85

Mftrs. List No.	Order Code	Mftrs. List No.	Order Code
HE721A1210	956-1960	HE721A2410	956-1978
HE721R0510	956-1986		

249150

COIL V dc	COIL Ω ±10%	Order Code	Price Each 1+	25+	100+	250+	500+	1K+
1 Form C (SPDT-CO)								
5	200	**956-1986●**						
1 Form A (SPST-NO)								
12	1K	**956-1960●**						
24	2.15K	**956-1978●**						

RoHS ● Compliant ▲ Non-compliant

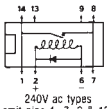
Dry Reed, DIL and DIP -
HE700 Series

HAMLIN

DIL - L=19.5, W=7, H=7
Pin spacing: 0.1" x 0.3"

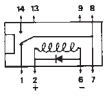
DIP - L=30, W=12.5, H=9
Pin spacing: 0.1" x 1.0"

Single Pole - Top Views

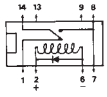


240V ac types
omit pins 1, 7, 9 & 13.

SPNO

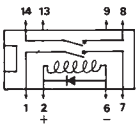


SPCO (pin out 1)



SPCO (pin out 2)

Double Pole - Top View



DPNO (DIL)

- Transfer moulded package with diode protection
- Dual line type in standard 14 pin IC package
- 240Vac mains switching type available

	200V dc Switching		240V ac Switching
	SPNO/DPNO (Form A)	SPCO (Form C)	SPNO (Form A)
Switch voltage (max)	0.5V dc	200V dc	240V ac
Switch current (max)	500mA	250mA	500mA
Switch power (max)	10W	3W	10W
Hold-off voltage (min)	250V	200V	450V
Contact resistance (max)	2000Ωohm	0.20Ωohm	0.20Ωohm
Operate/Release	0.5ms	1.5ms	0.5ms
Insulation resistance	GΩ	GΩ	GΩ

Mftrs. List No.	Order Code	Mftrs. List No.	Order Code	Mftrs. List No.	Order Code
HE721A0510	956-1757	HE721E0510	956-1790	HE722A2410	956-1838
HE721C0510	956-1765			HE751A0510	956-1951
HE721C1210	956-1773	HE722A0510	956-1811	HE751A1210	956-1846
HE721C2410	956-1781	HE722A1210	956-1820	HE751A2410	956-1854

213444

COIL V dc	Ω ± 10%	Order Code	Price Each 1+	25+	100+	250+
SPNO (DIL Package)						
3.75-10	500	**956-1757●**				
SPCO (Pin-Out 1)						
3.75-10	200	**956-1765●**				
8-20	500	**956-1773●**				
16-32	2K	**956-1781●**				
SPCO (Pin-Out 2)						
3.75-10	200	**956-1790●**				
DPNO (DIL Package)						
3.75-10	200	**956-1811●**				
8-20	500	**956-1820●**				
16-32	2.15K	**956-1838●**				
240V ac Switching						
SPNO (DIL Package)						
3.75-10	500	**956-1951●**				
8-20	1K	**956-1846●**				
16-32	2.15K	**956-1854●**				

Reed Relays - Meder

Reed Relay
Micro-Single In Line

MEDER electronic

- Rugged molded design
- Requires half the area of a standard SIL Reed Relay
- Internal suppression diode version available
- Internal magnetic shield

H = 6.8, W = 15.2, D = 3.81mm

Contact Form	1A	Switch carry current A (max)	1
Contact resistance mR (max)	150	Breakdown voltage V dc	225
Switch power W (max)	10	Time, operate/release ms (max)	0.5/0.1
Switch voltage V dc (max)	200	Temperature, operating °C	-20 to +70
Switching current A (max)	500		

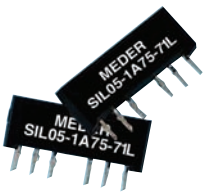
Mftrs. List No.	Order Code	Mftrs. List No.	Order Code
MS12-1A87-75L	107-9464	MS12-1A87-75D	107-9466
MS05-1A87-75D	107-9465		

417759

COIL V dc	Ω ±10%	Order Code	Price Each 1+	10+	25+	50+
No Diode						
12	700	**107-9464●**				
With Diode						
5	280	**107-9465●**				
12	700	**107-9466●**				

Reed Relay
Single In Line

MEDER electronic



- Approved according to EN 60950
- 4.25 kV dc breakdown voltage
- High resistance coil
- Internal suppression diode version available

H = 7.8, W = 19.8, D = 5.08mm

Contact Form	1A	Contact Form	1A
Contact resistance mR (max)	150	Breakdown voltage V dc	320
Switch power W (max)	20	Insulation voltage V dc	4200
Switch voltage V dc (max)	200	Time, operate/release ms (max)	0.5/0.1
Switching current A (max)	1	Temperature, operating °C	-20 to +70
Switch carry current A (max)	1.25		

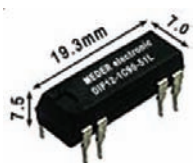
Mftrs. List No.	Order Code	Mftrs. List No.	Order Code
SIL05-1A72-71L	107-9456	SIL05-1A72-71D	107-9459
SIL12-1A72-71L	107-9457	SIL12-1A72-71D	107-9460
SIL24-1A72-71L	107-9458	SIL24-1A72-71D	107-9461

417757

COIL V dc	Ω ±10%	Order Code	Price Each 1+	10+	25+	50+
No Diode						
5	500	**107-9456●**				
12	1K	**107-9457●**				
24	2K	**107-9458●**				
With Diode						
5	500	**107-9459●**				
12	1K	**107-9460●**				
24	2K	**107-9461●**				

Reed Relay
Molded DIP

MEDER electronic



- IC-pin compatible
- Standard DIL pin configurations
- 4.25 kV dc breakdown voltage
- Internal suppression diode version available

Contact Form	1A	2A	1C
Contact resistance mR (max)	150	150	150
Switch power W (max)	20	20	3
Switch voltage V dc (max)	200	200	175
Switching current A (max)	1	1	250
Switch carry current A (max)	1.25	1.25	1.2
Breakdown voltage V dc	320	320	200
Insulation voltage V dc	1500	1500	1500
Time, operate/release ms (max)	0.5/0.1	0.5/0.1	0.7/1.5
Temperature, operating °C	-20 to +70	-20 to +70	-20 to +70

Mftrs. List No.	Order Code	Mftrs. List No.	Order Code
DIP05-1A72-12L	107-9435	DIP05-2A72-21D	107-9446
DIP24-1A72-12L	107-9437	DIP24-2A72-21D	107-9448
DIP05-1A72-12D	107-9439	DIP05-1C90-51L	107-9449
DIP12-1A72-12D	107-9441	DIP12-1C90-51L	107-9450
DIP24-1A72-12D	107-9442	DIP24-1C90-51L	107-9452
DIP05-2A72-21L	107-9443	DIP05-1C90-51D	107-9453
DIP12-2A72-21L	107-9444		
DIP24-2A72-21L	107-9445	DIP24-1C90-51D	107-9455

417748

COIL V dc	Ω ±10%	Order Code	Price Each 1+	10+	25+	50+
1 Form A						
No Diode						
5	500	**107-9435●**				
24	2K	**107-9437●**				
With Diode						
5	500	**107-9439●**				
12	1K	**107-9441●**				
24	2K	**107-9442●**				
2 Form A						
No Diode						
5	200	**107-9443●**				
12	500	**107-9444●**				
24	2K	**107-9445●**				

Reed Relays - Meder - continued

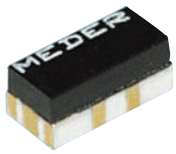
Reed Relay - continued

Molded DIP - continued

COIL V dc	Ω ±10%	Order Code	Price Each 1+	10+	25+	50+
2 Form A						
With Diode						
5	200	**107-9446●**				
24	2K	**107-9448●**				
1 Form C						
No Diode						
5	200	**107-9449●**				
12	500	**107-9450●**				
24	2K	**107-9452●**				
With Diode						
5	200	**107-9453●**				
24	2K	**107-9455●**				

Reed Relay

SPST - Low Profile



- Ceramic / thermoset package
- Smallest industry size device
- No lead frame
- No internal solder connections
- Internal magnetic shield
- Low thermal offset, typically 1µV
- Insulation resistance 10^{14}R typical

H=3.4, W=8.6, D=4.4mm

Contact ratings	10W	Coil resistance	150ohm
Switching voltage	170VDC or 170V ac peak	Coil voltage	5V
Switching current	500mA	Operating temperature	-40 to 125°C
Carry current	0.5A		

486259

Mftrs. List No.	Order Code	Price Each 1+	25+	100+	250+
CRR05-1A	SMD **144-7643●**				
7 GHz switching, 50R Impedance version					
CRF05-1A	SMD **144-7644●**				

Reed Relay

High Voltage HM Series

- Power switching up to 50W
- Breakdown voltage of 15 kV dc
- Switching up to 7.5 kV dc

H = 15.8, W = 65, D = 14.5mm

Contact Form	SPST-NO	Contact Form	SPST-NO
Contact resistance mR (max)	150	Breakdown voltage kV dc	10
Switch power W (max)	50	Insulation voltage kV dc	15
Switch voltage V dc (max)	7.5	Time, operate/release ms (max)	3/1.5
Switching current A (max)	3	Temperature, operating °C	-20 to +70
Switch carry current A (max)	5		

Mftrs. List No.	Order Code	Mftrs. List No.	Order Code
HM12-1A83-02	107-9502	HM24-1A83-02	107-9503

417880

COIL V dc	Ω ±10%	Order Code	Price Each 1+	10+	25+	50+
12	250	**107-9502●**				
24	1K	**107-9503●**				

Reed Relay

High Voltage H Series

- Switching up to 7.5 kV dc
- 1000 Gigaohm between coil and contact
- Breakdown voltage of 15 kV dc
- Ciol covered with a thermoplastic that meets **UL94V-0**

H = 30, W = 29.1 (body) 82 (overall), D = 18mm

Contact Form	SPST-NO / SPST-NC	Contact Form	SPST-NO / SPST-NC
Contact resistance mR (max)	150	Breakdown voltage kV dc	10
Switch power W (max)	50	Insulation voltage kV dc	15
Switch voltage kV dc (max)	7.5	Time, operate/release ms (max)	3/1.5
Switching current A (max)	3	Temperature, operating °C	-20 to +70
Switch carry current A (max)	5		

Mftrs. List No.	Order Code	Mftrs. List No.	Order Code
H12-1A83	107-9507	H24-1A83	107-9509
H12-1B83	107-9508	H24-1B83	107-9510

417887

COIL V dc	Ω ±10%	Order Code	Price Each 1+	10+	25+	50+
Contact form 1A						
12	340	**107-9507●**				
24	1.5K	**107-9509●**				
Contact form 1B						
12	275	**107-9508●**				
24	650	**107-9510●**				

Reed Relays - Cynergy3

High Voltage Reed Relays

D Series

- 15kV Isolation
- Low Contact Resistance
- High Power Switching
- PCB
- Flying Lead Terminal

NEW

Dimensions: H=18.5, D=15.8. W=60mm

Contact Configuration	SPNO	Max. Switching Current	2A
Contact Materials	Tungsten	Operate/Release	3ms/2ms
Max. Switching Power	50W	Operating Temperature	-20°C to 70°C
Max. Switching Voltage	10kV		

626444

COIL Volts	Ω	Mftrs. List No.	Order Code	Price Each 1+	10+	25+	50+	100+
5V	16	DAT70515F	**187-7557●**					
12V	95	DAT71215F	**187-7558●**					
24V	350	DAT72415F	**187-7559●**					

High Voltage Reed Relays

S Series

- Compact Footprint
- Designed Specifically for High Voltage
- Rhodium Contacts for Low Resistance
- 3 or 5kV Isolation Between Contacts

NEW

Dimensions: H=8.5, D=7.3. W=27.6mm

Contact Configuration	SPNO	Max. Switching Current	500mA
Contact Materials	Rhodium	Operate/Release	1ms/0.5ms
Max. Switching Power	10W	Operating Temperature	-20°C to 70°C
Max. Switching Voltage	20V		

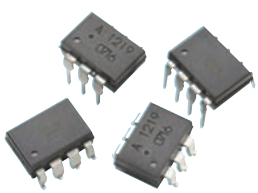
626453

COIL Volts	Ω	Mftrs. List No.	Order Code	Price Each 1+	10+	25+	50+	100+
3kV Isolation								
5V	140	SAR90503	**187-7560●**					
12V	600	SAR91203	**187-7561●**					
24V	1k	SAR92403	**187-7563●**					
5kV Isolation								
5V	140	SAR90505	**187-7564●**					
12V	600	SAR91205	**187-7565●**					
24V	1k	SAR92405	**187-7566●**					

MOSFET Relays - Avago

Photo MOSFET Relays

ASSR Series



Applications:
- Telecommunication Switching
- Data Communications
- Industrial Controls
- Medical
- Security
- EMR / Reed Relay Replacement

Avago Technologies' new ASSR Series are high-speed optically isolated MOSFET output solid-state relays that feature performance that has been qualified over a wide industrial temperature range of -40°C to +85°C. They are Form A (normally open) single-pole single-throw relays in industry-standard 6-pin and 8-pin dual-inline (DIP) packages, and 4-pin small outline (SO) packages. Their output ratings range from 60V to 600V maximum load voltage and from 40mA to 2.5A continuous output current. Their transient immunity of more than 1kV/µs and excellent noise rejection between input-output as well as between open terminals on the output will liminate undesirable transient effects. Reinforced insulation of 3.75kV with fast switching speed makes them suitable for a wide range of industrial, consumer and automotive applications.

Mftrs. List No.	Load Voltage	Load Current	On Resistance	Terminal Type	Package Type
ASSR-1218-003E	60V	200mA	10ohm	SMD	SOIC-4
ASSR-1228-002E	60V	200mA	10ohm	THT	DIP-8
ASSR-1228-302E	60V	200mA	10ohm	SMD	DIP-8
ASSR-1410-003E	60V	600mA	1ohm	SMD	SOIC-4
ASSR-1420-002E	60V	600mA	1ohm	THT	DIP-8
ASSR-1510-003E	60V	1A	0.5ohm	SMD	SOIC-4
ASSR-1611-001E	60V	2.5A	0.1ohm	THT	DIP-6
ASSR-1611-301E	60V	2.5A	0.1ohm	SMD	DIP-6
ASSR-3210-003E	250V	200mA	10ohm	SMD	SOIC-4
ASSR-3220-302E	250V	200mA	10ohm	SMD	DIP-8

Mftrs.	Load		On	Terminal	Package
ASSR-322R-002E	250V	200mA	8.5ohm	THT	DIP-8
ASSR-322R-302E	250V	200mA	8.5ohm	SMD	DIP-8
ASSR-401C-003E	400V	40mA	100ohm	SMD	SOIC-4
ASSR-402C-302E	400V	40mA	100ohm	SMD	DIP-8
ASSR-4110-003E	400V	120mA	25ohm	SMD	SOIC-4
ASSR-4118-003E	400V	100mA	35ohm	SMD	SOIC-4
ASSR-4120-002E	400V	120mA	25ohm	THT	DIP-8
ASSR-4120-302E	400V	120mA	25ohm	SMD	DIP-8
ASSR-4128-002E	400V	100mA	35ohm	THT	DIP-8
ASSR-5211-001E	600V	400mA	16ohm	THT	DIP-6
ASSR-5211-301E	600V	400mA	16ohm	SMD	DIP-6

536172

Mftrs.		Price Each				
List No.	Order Code	1+	25+	50+	100+	500+
ASSR-1218-003E	**170-8432**					
ASSR-1228-002E	**170-8433**					
ASSR-1228-302E	**170-8434**					
ASSR-1410-003E	**170-8435**					
ASSR-1420-002E	**170-8436**					
ASSR-1510-003E	**170-8438**					
ASSR-1611-001E	**170-8441**					
ASSR-1611-301E	**170-8443**					
ASSR-3210-003E	**170-8445**					
ASSR-3220-302E	**170-8447**					
ASSR-322R-002E	**170-8448**					
ASSR-322R-302E	**170-8449**					
ASSR-401C-003E	**170-8450**					
ASSR-402C-302E	**170-8452**					
ASSR-4110-003E	**170-8453**					
ASSR-4118-003E	**170-8455**					
ASSR-4120-002E	**170-8456**					
ASSR-4120-302E	**170-8457**					
ASSR-4128-002E	**170-8458**					
ASSR-5211-001E	**170-8460**					
ASSR-5211-301E	**170-8461**					

Dual Channel Photovoltaic MOSFET Driver

ASSR Series

The ASSR-V62X Series is specially designed to drive high power MOSFETs. The dual channel configurations, ASSR-V621 and ASSR-V622, allow 2 independent MOSFETs to be driven. It has the versatility to double the photovoltaic voltage by connecting the 2 channels in series or to double the short circuit current by connecting the 2 channels in parallel.

- Open Circuit Voltage: 7V Typical
- Short Circuit Current: 20mA Typical
- Low Input Current: CMOS Compatibility
- Fast Switching Speed
- High Input-to-Output Insulation Voltage

Applications:

- Solid State Relay Module
- Voltage Supply for electronic circuits

Mftrs. List No.	Load Voltage	Load Current	Insulation Voltage	Terminal Type	Package Type
ASSR-V621-302E	6.5V	15μA	3.75kV	SMD	DIP-8
ASSR-V622-302E	6.5V	15μA	3.75kV	SMD	DIP-8

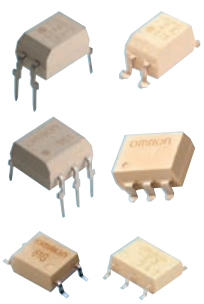
538344

Mftrs.		Price Each				
List No.	Order Code	1+	25+	50+	100+	500+
ASSR-V621-302E	**170-8463**					
ASSR-V622-302E	**170-8465**					

MOSFET Relays - Omron

MOSFET Relays

G3VM Series



- High load voltage capability
- Large isolation between input and output
- MOSFET design ensures fast switching
- PCB THT and SMD versions available
- **UL** Recognised

Output Style	Dielectric strength I / O	Time on/off (ms)	LED forward voltage (min/max)	Load current (mA)	On state Resistance (max)	Mftrs. List No.	Order Code
DPST-NO	1500 V rms	0.6 / 0.1	1 / 1.3	130	8ohm	G3VM-202J1	206-5730
SPST-NO	1500 V rms	0.025 / 0.11	1 / 1.3	160	8ohm	G3VM-21GR	206-5731
SPST-NO	1500 V rms	0.09 / 0.2	1 / 1.3	300	1.5ohm	G3VM-21GR1	206-5732
SPST-NO	1500 V rms	0.06 / 0.12	1 / 1.3	160	8ohm	G3VM-21LR	206-5734
SPST-NO	1500 V rms	0.2 / 0.2	1 / 1.3	450	1.2ohm	G3VM-21LR1	206-5735
SPST-NO	1500 V rms	0.026 / 0.045	1.15 / 1.45	200	5ohm	G3VM-21LR10	206-5736
SPST-NO	2500 V rms	1 / 1	1.0 / 1.3	120	50ohm	G3VM-351A	991-8779
SPST-NO	2500 V rms	1 / 1	1.0 / 1.3	120	50ohm	G3VM-351D	991-8795
SPST-NO	2500 V rms	1 / 1	1.0 / 1.3	120	50ohm	G3VM-351E	991-8809
SPST-NO	1500 V rms	1 / 3	1.0 / 1.3	110	50ohm	G3VM-351G	991-8817
SPST-NO	1500 V rms	0.3 / 0.1	1 / 1.3	100	35ohm	G3VM-351GL	206-5737
DPST-NO	1500 V rms	0.3 / 0.1	1 / 1.3	100	35ohm	G3VM-352J	206-5738
SPST-NC	1500 V rms	1 / 3	1.0 / 1.3	120	25ohm	G3VM-353G	991-8876
SPST-1NO / 1NC	2500 V rms	0.18 / 0.11	1 / 1.3	120	25ohm	G3VM-355CR	206-5741
SPST-1NO / 1NC	1500 V rms	0.18 / 0.11	1 / 1.3	90	50ohm	G3VM-355J	206-5742
SPST-NO	2500 V rms	1 / 1	1.0 / 1.3	120	35ohm	G3VM-401A	991-8892
SPST-NO	5000 V rms	0.3 / 0.1	1 / 1.3	120	35ohm	G3VM-401EY	206-5743
SPST-NO	1500 V rms	1 / 1	1.0 / 1.3	120	35ohm	G3VM-401G	991-8930
DPST-NO	1500 V rms	1 / 1	1.0 / 1.3	120	35ohm	G3VM-402J	179-8609
SPST-NO	1500 V rms	0.055 / 0.19	1 / 1.3	250	3ohm	G3VM-41GR4	206-5746
SPST-NO	1500 V rms	0.09 / 0.21	1 / 1.3	300	1.5ohm	G3VM-41GR5	206-5747
SPST-NO	1500 V rms	0.025 / 0.15	1 / 1.3	120	15ohm	G3VM-41GR6	206-5748
SPST-NO	1500 V rms	1.2 / 0.2	1.18 / 1.48	1	0.13ohm	G3VM-41GR8	206-5749
SPST-NO	1500 V rms	0.026 / 0.14	1.15 / 1.45	120	14ohm	G3VM-41LR10	206-5750
SPST-NO	1500 V rms	0.12 / 0.14	1 / 1.3	250	3ohm	G3VM-41LR4	206-5751
SPST-NO	1500 V rms	0.2 / 0.2	1 / 1.3	300	1.5ohm	G3VM-41LR5	206-5752
SPST-NO	1500 V rms	0.05 / 0.12	1 / 1.3	120	15ohm	G3VM-41LR6	206-5753
SPST-NO	5000 V rms	0.2 / 0.2	1 / 1.3	100	45ohm	G3VM-601BY	206-5754
SPST-NO	5000 V rms	0.2 / 0.2	1 / 1.3	100	45ohm	G3VM-601EY	206-5755
SPST-NO	2500 V rms	2 / 0.5	1.0 / 1.3	500	2ohm	G3VM-61A1	991-8957
SPST-NO	2500 V rms	2 / 0.5	1.0 / 1.3	500	2ohm	G3VM-61B1	991-8965
SPST-NO	2500 V rms	1.5 / 0.4	1.18 / 1.48	2.5	0.1ohm	G3VM-61BR	179-8610
SPST-NO	2500 V rms	2 / 0.5	1.0 / 1.3	500	2ohm	G3VM-61D1	991-8973
SPST-NO	2500 V rms	2 / 0.5	1.0 / 1.3	500	2ohm	G3VM-61E1	991-8981
SPST-NO	2500 V rms	1.5 / 0.4	1.18 / 1.48	2.5	0.1ohm	G3VM-61ER	179-8611
SPST-NO	1500 V rms	2 / 0.5	1.0 / 1.3	400	2ohm	G3VM-61G1	991-8990
SPST-NO	1500 V rms	3 / 1	1 / 1.3	1	0.7ohm	G3VM-61GR1	179-8612
SPST-NO	1500 V rms	2 / 0.5	1.0 / 1.3	400	2ohm	G3VM-61H1	991-9007
SPST-NO	1500 V rms	0.2 / 0.2	1 / 1.3	400	1.5ohm	G3VM-61LR	206-5756
SPST-NO	3750 V rms	1 / 0.5	1 / 1.3	70	50ohm	G3VM-61VY	189-2382
DPST-NO	2500 V rms	0.8 / 0.1	1 / 1.3	500	2ohm	G3VM-62C1	206-5758
DPST-NO	2500 V rms	0.8 / 0.1	1 / 1.3	500	2ohm	G3VM-62F1	206-5759
DPST-NO	1500 V rms	0.8 / 0.1	1 / 1.3	400	2ohm	G3VM-62J1	206-5760
SPST-NO	1500 V rms	0.3 / 0.3	1 / 1.3	350	1.2ohm	G3VM-81G1	206-5761
SPST-NO	1500 V rms	0.07 / 0.07	1 / 1.3	40	25ohm	G3VM-81GR	206-5762
SPST-NO	1500 V rms	2 / 0.7	1 / 1.3	1.25	0.15ohm	G3VM-81HR	206-5763

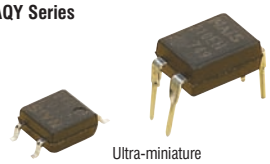
414157

Load Voltage (Peak)	Order Code	Price Each 1+	10+	25+	50+
200VAC	NEW **206-5730**				
20VAC	NEW **206-5731**				
20VAC	NEW **206-5732**				
20VAC	NEW **206-5734**				
20VAC	NEW **206-5735**				
20VAC	NEW **206-5736**				
350VAC	**991-8779**				
350VAC	**991-8795**				
350VAC	SMD **991-8809**				
350VAC	SMD **991-8817**				
350VAC	NEW **206-5737**				
350VAC	NEW **206-5738**				
350VAC	SMD **991-8876**				
350VAC	NEW **206-5741**				
350VAC	NEW **206-5742**				
400VAC	**991-8892**				
400VAC	NEW **206-5743**				
400VAC	SMD **991-8930**				
400V	**179-8609**				
40VAC	NEW **206-5746**				
40VAC	NEW **206-5747**				
40VAC	NEW **206-5748**				
40VAC	NEW **206-5749**				
40VAC	NEW **206-5750**				
40VAC	NEW **206-5751**				
40VAC	NEW **206-5752**				
40VAC	NEW **206-5753**				
600VAC	NEW **206-5754**				
600VAC	NEW **206-5755**				
60VAC	**991-8957**				
60VAC	**991-8965**				
60V	**179-8610**				
60VAC	**991-8973**				
60VAC	SMD **991-8981**				
60V	**179-8611**				
60VAC	SMD **991-8990**				
60V	**179-8612**				
60VAC	SMD **991-9007**				
60VAC	NEW **206-5756**				
60V	NEW **189-2382**				
60VAC	NEW **206-5758**				
60VAC	NEW **206-5759**				
60VAC	NEW **206-5760**				
80VAC	NEW **206-5761**				
80VAC	NEW **206-5762**				
80VAC	NEW **206-5763**				

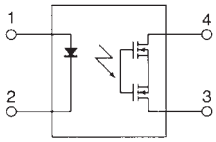
MOSFET Relays - Panasonic

Photo MOS -
AQY Series

Panasonic



Ultra-miniature
H=2.1, W=4.3, D=4.4
(Pin spacing 2.54 x 6.0)



Sub-miniature
H=3.2, W=4.78, D=6.4 (Pin spacing 2.54 x 8.3)

- Available in ultraminiature SO and sub-miniature DIL packages
- ac or dc switching capability
- Reinforced barrier gives 5000V rms I/O isolation (EH and EHA types)
- Low-level off state leakage current

Load Voltage (pk)	Load Current (mA)	Isolation Voltage (ac)	Mftrs. List No.	Order Code
Single Pole, N/O - Ultra-miniature - Surface mount				
0 to 60V	500	1.5	AQY212S	209-5723
0 to 350V	100	1.5	AQY210S	310-5313
Single Pole, N/C - Ultra-miniature - Surface mount				
0 to 350V	120	1.5	AQY410S	209-5727
0 to 400V	80	1.5	AQY414S	310-5325
Single Pole, N/O - Sub-miniature - Through Hole				
0 to 350V	130	5	AQY210EH	310-5337
Single Pole, N/C - Sub-miniature - Through Hole				
0 to 400V	120	5	AQY414EH	310-5349
Single Pole, N/O - Sub-miniature - Surface mount				
0 to 350V	130	5	AQY210EHA	310-5350
0 to 350V	120	1.5	AQY210KS	372-7889
0 to 400V	120	5	AQY214EHA	209-5724
0 to 600V	50	5	AQY216EHA	209-5726

207082

Load Voltage Range	Order Code	Price Each 1+	25+	50+	100+	500+
Single Pole, N/O - Ultra-miniature - Surface mount						
0 to 60	NEW 209-5723●					
0 to 350	310-5313●					
Single Pole, N/C - Ultra-miniature - Surface mount						
0 to 350	NEW 209-5727●					
0 to 400	310-5325●					
Single Pole, N/O - Sub-miniature - Through Hole						
0 to 350	310-5337●					
Single Pole, N/C - Sub-miniature - Through Hole						
0 to 400	310-5349●					
Single Pole, N/O - Sub-miniature - Surface mount						
0 to 350	310-5350●					
0 to 350	372-7889●					
0 to 400	NEW 209-5724●					
0 to 600	NEW 209-5726●					

Photovoltaic MOSFET Driver
APV Series

Panasonic ideas for life

- High speed switching
- Space saving
- High insulation

NEW

Mftrs. List No.	Load Voltage	Load Current	Isolation Voltage	Order Code
Single Pole, N/O - Through Hole				
APV2111VJ	8.2V	8μA	1.5kV	209-5709
APV1121SJ	8.7V	14μA	2.5kV	209-5708

659026

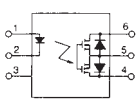
Mftrs. List No.	Order Code	Price Each 1+	25+	50+	100+	250+
APV2111VJ	209-5709●					
APV1121SJ	209-5708●					

PhotoMOS -
AQV/AQW21/25 Series

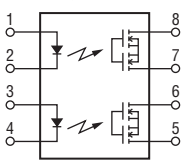
Panasonic

Single Pole (Through Hole)

Double Pole (Surface Mount)



Single Pole



The photoMOS relay provides solid state switching for low level signals, utilising MOSFET technology for the output stage.

- Reinforced barrier gives 5000V rms I/O isolation
- High sensitivity / low power consumption
- ac or dc switching capability
- Standard 6 and 8 pin IC and SO packages

Double Pole

- LED version gives clear operation visability
- **UL Recognised** and **CSA** approved. Conforms to **BS60950 (7002)** and **BS415**

LED operate current 0.9mA (typ),3mA (max) Turn on/Turn off time 0.8ms (typ), 2ms (max)s

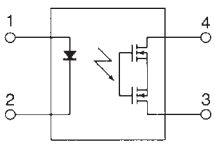
Load Voltage Range (Vpk)	Load Current (mA) max.	Mftrs. List No.	Order Code
0 to 100V	320	AQV215A	209-5722
0 to 250V	200	AQV253H	112-4062
0 to 350VAC	130	AQV210EH	117-5731
0 to 400V	150	AQV254H	112-4063
0 to 350VAC	120	AQW210EH	117-5733
0 to 350VAC	100	AQW210S	117-5734

207012

Load Voltage Range	Order Code	Price Each 1+	25+	50+	100+	500+
Single Pole, ac or dc load						
0 to 100V	NEW 209-5722●					
0 to 250V	112-4062●					
0 to 350VAC	117-5731●					
0 to 400V	112-4063●					
Double Pole, ac or dc load						
0 to 350VAC	117-5733●					
Surface Mount, Double Pole, ac or dc load						
0 to 350VAC	SMD 117-5734●					

Photo MOS -
AQY27 Series

Panasonic



- High capacity switching
- ac or dc switching capability
- Low-level off state leakage current
- **UL** Recognised and **CSA** approved

Dimensions: H=3.9, W=8.8, D=9.3mm

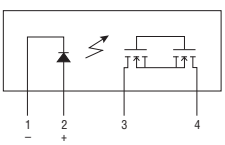
Mftrs. List No.	Load Voltage	Load Current	Isolation Voltage	Order Code
Single Pole, N/O - Through Hole				
AQY272	60V	2A	2.5kV	310-5611
AQY274	400V	350mA	2.5kV	310-5623

622616

Mftrs. List No.	Order Code	Price Each 1+	25+	50+	100+	500+
Single Pole, N/O - Through Hole						
AQY272	310-5611●					
AQY274	310-5623●					

PhotoMOS - AQZ Series

Panasonic



H=11, W=21, D=3.5

- Compact 4 pin SIL package
- High capacity AC / DC output switching
- Extremely low On-Resistance
- High isolation voltage 2500V

Load voltage (pk)	Load current (ma)	On-resistance (max.)Ω	Mftrs. List No.	Order Code
60V	3A	0.18	AQZ202	117-5735
100V	2A	0.34	AQZ205	117-5736

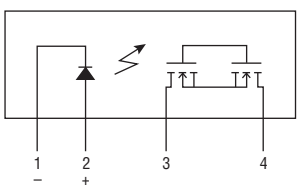
207047

Load Voltage Range	Order Code	Price Each 1+	25+	50+	100+	500+
Single Pole, ac / dc Load						
0 to ± 60V	117-5735●					
0 to ± 100V	117-5736●					

Photo MOS
AQY262 Series 6A

Panasonic

H=32, W=43, D=9



RoHS ● Compliant ▲ Non-compliant

- High capacity switching up to 6A
- Low on resistance, less than 50mΩ
- 4 pin SIL package
- ac or dc switching capability
- Low-level off state leakage current
- **UL** Recognised and **CSA** approved

Load Voltage (pk)	Load Current	Isolation Voltage (ac)	Mftrs. List No.	Order Code
60	6	1.5	AQZ262	310-5854

207078

Load Voltage Range	Order Code	Price Each 1+	25+	50+	100+	500+
0 to ±60	**310-5854**					

Solid State Relays - Carlo Gavazzi

Solid State Relays

- 17.5mm width
- Rated Operational voltage: Up to 600Vrms
- Rated Operational current: Up to 60Arms
- Control voltages: 3-32 VDC, 20-275 VAC (24-190VDC)
- Input connection: Screw terminal
- Output connection: Screw clamp/screw terminal
- Integrated voltage transient protection with varistor
- Short circuit rating: 100 kA

NEW

Mftrs. List No.	Rated Voltage	Rated Current	Blocking Voltage	Control Input	Pick-up Voltage
RGS1A23A25KKE	230V	25A	800Vp	20V AC to 275V AC, 24V DC to 190V DC	20V ac/dc
RGS1A23A50KKE	230V	50A	800Vp	20V AC to 275V AC, 24V DC to 190V DC	20V ac/dc
RGS1A23D25KKE	230V	25A	800Vp	3V DC to 32V DC, 4V DC to 32V DC	20V ac/dc
RGS1A23D50KKE	230V	50A	800Vp	3V DC to 32V DC, 4V DC to 32V DC	20V ac/dc
RGS1A60A25KKE	600V	25A	1200Vp	20V AC to 275V AC, 24V DC to 190V DC	20V ac/dc
RGS1A60A50KKE	600V	50A	1200Vp	20V AC to 275V AC, 24V DC to 190V DC	20V ac/dc
RGS1A60D25KKE	600V	25A	1200Vp	3V DC to 32V DC, 4V DC to 32V DC	20V ac/dc
RGS1A60D50KKE	600V	50A	1200Vp	3V DC to 32V DC, 4V DC to 32V DC	20V ac/dc
RGC1A23A30KKE	230V	30A	800Vp	20V AC to 275V AC, 24V DC to 190V DC	20V ac/dc
RGC1A23D30KKE	230V	30A	800Vp	3V DC to 32V DC, 4V DC to 32V DC	20V ac/dc
RGC1A23A60KGE	230V	60A	800Vp	20V AC to 275V AC, 24V DC to 190V DC	20V ac/dc
RGC1A23D60KGE	230V	60A	800Vp	3V DC to 32V DC, 4V DC to 32V DC	20V ac/dc
RGC1A60A30KKE	600V	30A	1200Vp	20V AC to 275V AC, 24V DC to 190V DC	20V ac/dc
RGC1A60D30KKE	600V	30A	1200Vp	3V DC to 32V DC, 4V DC to 32V DC	20V ac/dc
RGC1A60A60KGE	600V	60A	1200Vp	20V AC to 275V AC, 24V DC to 190V DC	20V ac/dc
RGC1A60D60KGE	600V	60A	1200Vp	3V DC to 32V DC, 4V DC to 32V DC	20V ac/dc

638484

Mftrs. List No.	Order Code	Price Each 1+	5+	10+	50+
RGS1A23A25KKE	**194-7819**				
RGS1A23A50KKE	**194-7820**				
RGS1A23D25KKE	**194-7821**				
RGS1A23D50KKE	**194-7822**				
RGS1A60A25KKE	**194-7823**				
RGS1A60A50KKE	**194-7824**				
RGS1A60D25KKE	**194-7826**				
RGS1A60D50KKE	**194-7827**				
RGC1A23A30KKE	**194-7828**				
RGC1A23D30KKE	**194-7829**				
RGC1A23A60KGE	**194-7830**				
RGC1A23D60KGE	**194-7831**				
RGC1A60A30KKE	**194-7832**				
RGC1A60D30KKE	**194-7833**				
RGC1A60A60KGE	**194-7834**				
RGC1A60D60KGE	**194-7835**				

Solid State Relays

RX1A Series

- Zero switching AC Solid State Relay
- Direct copper bonding (DCB) technology
- LED indication
- IP 20 protection cover
- Screw, Spring or FASTON terminal options
- Housing free of moulding mass
- 2 input ranges
- Blocking voltage: Up to 1200 Vp
- Opto-isolation: > 4000 VACrms
- Integrated snubber network

Mftrs. List No.	Rated Voltage	Rated Current	Blocking Voltage	Control Input	Pick-up Voltage	Order Code
Base Module						
RX1A23D25	230V ac	25A	650Vp	4 - 32V dc	3.5V dc	176-1604
Control Plug with Spring Terminals - Power: FASTON Terminals						
RX1A23D25MF	230V ac	25A	650Vp	4 - 32V dc	3.5V dc	176-1608
Control Plug with Screw Terminals - Power Plug with Screw Terminals						
RX1A23D25VC	230V ac	25A	650Vp	4 - 32V dc	3.5V dc	176-1617
RX1A23D50VC	230V ac	50A	650Vp	4 - 32V dc	3.5V dc	176-1618

549548

Mftrs. List No.	Order Code	Price Each 1+	5+	10+	50+
Base Module					
RX1A23D25	**176-1604**				
Control Plug with Spring Terminals - Power: FASTON Terminals					
RX1A23D25MF	**176-1608**				
Control Plug with Screw Terminals - Power Plug with Screw Terminals					
RX1A23A25VC	**176-1615**				
RX1A23A50VC	**176-1616**				

20A DIN Rail Mounting

Mini Solitron

These relays are designed to replace electro-mechanical contactors in industrial heating and motor control applications, especially when switching is frequent. The devices are ready to mount on DIN-rail or chassis and come with integral heatsink. The compact terminal layout allows SSR (U) type connection. Two 2.5mm² cables can be connected in each screw terminal to allow looping. A removable IP20 cover enables connection of a 4mm² cable with crimped terminal. An LED indicates the status of the control input.
UL Recognised and CE marked.

H=80, W=22.5, D=103mm

- AC semiconductor contactor
- Zero switching
- Direct Copper Bonding (DCB) technology
- LED Indication
- Self lifting terminals
- Opto-isolation >4000V ac(rms)

	554-0458	**554-0460 & 554-0471**
Control voltage	4 to 32VDC	24 to 275VAC/24 to 48VDC
Pick-up voltage	3.8VDC	22V ac/dc
Drop-out voltage	1.2VDC	6V ac/dc
Input current (Max.)	12 mA	17 mA

Rated operational current	AC1 - 20Aac (rms) @ Ta = 25°C, AC3 - 5Aac (rms) @ Ta = 25°C
Minimum operational current	350mA ac (rms)
Off state leakage current	<3mA ac (rms)
Operational frequency	45 to 65Hz
Operating temperature	-30 to 80°C
Storage temperature	-40 to 100°C
Junction temperature	125°C

341200

Mftrs. List No.	Order Code	Price Each 1+	10+	50+
Operational Voltage = 660VAC				
RJ1A60D20UA	**554-0458**			
RJ1A60A20UA	**554-0460**			
Operational Voltage = 230V ac				
RJ1A23A20UA	**554-0471**			

Solid State Relays

Multi-Function Analog Switching

- AC semiconductor contactor
- Multi-function - 5 selectable modes of operation: Phase Angle, Distributed Full Cycle and Burst Control (1, 3 and 10s)
- Direct copper bonding (DCB) technology
- LED-indication for control and load status
- 0-10V control input
- Built-in varistor
- Blocking voltage: Up to 1200Vp
- Opto-isolation > 4000VACrms
- Cage clamp terminals
- IP20 protection

Dimensions: W=45, H=81.7, D=107mm

Mftrs. List No.	Rated Voltage	Rated Current	Blocking Voltage	Control Input	Supply Voltage	Order Code
RJ1P23V30	230V ac	30A	650Vp	0-10V dc	24V ac/dc	176-1623
RJ1P48V50	480V ac	50A	1200Vp	0-10V dc	24V ac/dc	176-1628

549544

Mftrs. List No.	Order Code	Price Each 1+	5+	10+	50+
RJ1P23V30	**176-1623**				
RJ1P48V50	**176-1628**				

Solid State Relays - Carlo Gavazzi - continued

30A to 63A DIN Rail Mounting - RN Series

- Solid State Contactor (IEC 158-2)
- Front mounted heatsink
- LED status indication
- **IP20** Protection
- Zero volt switching
- Contactor terminal layout
- **CE** Marked

H=120, W=45, D=103mm (30A)
H=120, W=90, D=103mm (50/63A)

Note: for 2 pole versions current rating is **SUM** of both poles - e.g. 15A+15A for 30A rating

Input Volts:	5V DC to 32V DC 5-32VDC (dc input)		Input Current:	<12mA Min. Load Current:	200mA
Off-state leakage:	<1mA		dV/dt:		500V/µs

Load Current A	Load Voltage (Vac)	Output Device	Blocking Voltage (Vdrm)	1 cycle Surge (A)	Mftrs List No.	Order Code
AC/DC input - ac output - 1 pole						
30	42-530Vac	Thyristor	1200	250	RN1A48A30	247-418
DC input - 480Vac output - 1 pole						
30	42-530Vac	Thyristor	1200	250	RN1A48D30	247-406
50	42-530Vac	Thyristor	1200	600	RN1A48D50	247-420
DC input - 480Vac output - 2 pole						
50	42-530Vac	Thyristor	1200	600	RN2A48D50	310-3018

207087

Load Current	Order Code	Price Each 1+	10+	50+
AC/DC Input - 480Vac output - 1 pole				
30A	**247-418**			
DC Input - 480Vac output - 1 pole				
30A	**247-406**			
50A	**247-420**			
DC Input - 480Vac output - 2 pole				
50A	**310-3018**			

3 phase - 25, 40 & 55A

RZ3A Series

Solid state relays designed to switch loads such as heating elements, motors and transformers. Capable of switching voltages up to 600V ac (rms).

- 3 Phase Solid State Relay
- Zero switching
- Internal snubber networks
- **IP 10** back-of-hand protection
- LED indicator

L = 103, W = 73.5, H = 41mm
Mounting centres = 92 x 47.6mm

	554-0495, 554-0513 & 554-0537	554-0483, 554-0501 & 554-0525
Control voltage	4 to 32VDC	24 to 50VDC/24 to 275VAC
Pick-up voltage	3.8VDC	18VAC/20V dc
Drop-out voltage	1.2VDC	9VAC
Input current (Max.)	≤23mA	≤15mA

Operational voltage	42 to 660VAC
Operational frequency	45 to 65Hz
Operating temperature	-30 to 80°C
Storage temperature	-40 to 100°C
Junction temperature	≤125°C
Minimum operational current	150mA ac(rms)
Off-state leakage current	<3 mA ac (rms) @ rated voltage and frequency

	554-0483 & 554-0495	554-0501 & 554-0513	554-0525 & 554-0537
Rated operational current - AC51	25A ac(rms)	40A ac(rms)	55 ac(rms)
Rated operational current - AC53a	5A ac(rms)	8A ac(rms)	15A ac(rms)

341198.343549

Mftrs. List No.	Order Code	Price Each 1+	10+	50+
25A Rated Operational Current				
RZ3A60A25	**554-0483**			
RZ3A60D25	**554-0495**			
40A Rated Operational Current				
RZ3A60A40	**554-0501**			
RZ3A60D40	**554-0513**			
55A Rated Operational Current				
RZ3A60A55	**554-0525**			
RZ3A60D55	**554-0537**			

30A to 50A DIN Rail Mounting

- 2 Pole AC solid state relay
- Analog switching for resistive loads (heating)
- 0-10 V controls
- Rated operational voltage up to 480 VAC
- LED-indication for normal operation and alarm status
- IP 20 protection
- DIN-rail mountable

RN..30: H=120, W=45, D=110mm
RN..50: H=120, W=90, D=110mm

Mftrs. List No.	Rated Voltage	Rated Current	Control Input	Order Code
RN2F48V30	480V ac	30A (2x15A)	0 - 10V dc	176-1625
RN2F48V50	480V ac	50A (2x25A)	0 - 10V dc	176-1627

549539

Mftrs. List No.	Order Code	Price Each 1+	5+	10+	50+
RN2F48V30	**176-1625**				
RN2F48V50	**176-1627**				

Solid State Relays - Crouzet

Panel Mount SSRs

- Ratings of 10 or 25 amps at 240Vac
- Economic triac output for light industrial loads
- Regulated AC and DC inputs
- Internal transient protection
- IP00 rating
- 4000Vac Optical Isolation
- Zero voltage switching

NEW

Mftrs. List No.	Output Current	Output Voltage	Input Voltage	Termination	Order Code
84134900	10A	24V AC to 280V AC	3V DC to 32V DC	Screw	193-6388
84134901	10A	24V AC to 280V AC	90V AC to 280V AC	Screw	193-6389
84134907	10A	24V AC to 280V AC	3V DC to 32V DC	Screw	193-6390
84134910	25A	24V AC to 280V AC	3V DC to 32V DC	Screw	193-6391
84134911	25A	24V AC to 280V AC	90V AC to 280V AC	Screw	193-6392
84134917	25A	24V AC to 280V AC	3V DC to 32V DC	Screw	193-6393

640525

Mftrs. List No.	Order Code	Price Each 1+	10+	25+	50+	100+
84134900	**193-6388**					
84134901	**193-6389**					
84134907	**193-6390**					
84134910	**193-6391**					
84134911	**193-6392**					
84134917	**193-6393**					

IP20 Covered SSR

SCR Output - Single Phase with Over-Voltage and Transient Protection

A range of EMC level 3, class A compliant,surface mounting, optically coupled, solid state relays in the industry standard 'hockey puck' housing. These relays have a sealed construction, with no moving parts. The switching is silent and is not affected by vibration.
Zero volt switching versions can be used for switching single phase resistive loads or motors where the power factor is >0.8. For inductive loads (motors) with a power factor less than 0.8 the random switching versions are recommended.
These devices must be mounted on an adequate heat sink to dissipate the heat generated within the relay, caused by the internal volt drop across the output circuit.

- Direct Copper Bonded substrate
- Up to 10 times longer life expectancy
- Current ratings from 10 to 125 Amps
- EMC Compliant
- Output overvoltage and transient protection
- Back to back dual SCR output
- 4000 Vac optical isolation
- LED input status indicator
- IP20"touch safe" cover
- **UL** and **cUL** recognised

Mftrs. List No.	Output Current	Output Voltage	Input Voltage	Switching	Order Code
84137000	10A	24V AC to 280V AC	3V DC to 32V DC	Zero Cross	119-0033
84137001	10A	24V AC to 280V AC	90V AC to 280V AC	Zero Cross	193-6394
84137010	25A	24V AC to 280V AC	3V DC to 32V DC	Zero Cross	119-0037
84137011	25A	24V AC to 280V AC	90V AC to 280V AC	Zero Cross	119-0038
84137020	50A	24V AC to 280V AC	3V DC to 32V DC	Zero Cross	119-0043
84137021	50A	24V AC to 280V AC	90V AC to 280V AC	Zero Cross	193-6395
84137030	75A	24V AC to 280V AC	3V DC to 32V DC	Zero Cross	193-6397
84137110	25A	48V AC to 660V AC	4V DC to 32V DC	Zero Cross	119-0041
84137111	25A	48V AC to 660V AC	90V AC to 280V AC	Zero Cross	193-6398
84137112	25A	48V AC to 660V AC	18V AC to 36V AC	Zero Cross	193-6399
84137120	50A	48V AC to 660V AC	4V DC to 32V DC	Zero Cross	119-0045
84137121	50A	48V AC to 660V AC	90V AC to 280V AC	Zero Cross	193-6400

RoHS ● Compliant ▲ Non-compliant

Mftrs.		Output	Input		
84137130	75A	48V AC to 660V AC	4V DC to 32V DC	Zero Cross	193-6401
84137140	100A	48V AC to 660V AC	4V DC to 32V DC	Zero Cross	193-6403
84137210	25A	24V AC to 280V AC	3V DC to 32V DC	Random Turn-On	193-6404
84137220	50A	24V AC to 280V AC	3V DC to 32V DC	Random Turn-On	193-6405
84137310	25A	48V AC to 660V AC	4V DC to 32V DC	Random Turn-On	193-6406
84137320	50A	48V AC to 660V AC	4V DC to 32V DC	Random Turn-On	193-6407
84137330	75A	48V AC to 660V AC	4V DC to 32V DC	Random Turn-On	193-6408

346152

Mftrs.		Price Each				
List No.	Order Code	1+	10+	25+	50+	100+
84137000	119-0033●					
84137001	NEW 193-6394●					
84137010	119-0037●					
84137011	119-0038●					
84137020	119-0043●					
84137021	NEW 193-6395●					
84137030	NEW 193-6397●					
84137110	119-0041●					
84137111	NEW 193-6398●					
84137112	NEW 193-6399●					
84137120	119-0045●					
84137121	NEW 193-6400●					
84137130	NEW 193-6401●					
84137140	NEW 193-6403●					
84137210	NEW 193-6404●					
84137220	NEW 193-6405●					
84137310	NEW 193-6406●					
84137320	NEW 193-6407●					
84137330	NEW 193-6408●					

		Price Per Pack				
Thermal joints x 25		1+	5+	10+	25+	+
26532720	118-9997●					

Panel Mount SSRs

Crouzet

NEW

FET Output

- 15 or 30 amp output ratings
- Very low off-state leakage current (<10uA)
- Low on-state impedance minimizes power dissipation
- IP20 "touch safe" housing
- LED input status indicator
- 4000 Vac optical isolation

Transistor Output

- 10 amp load rating at 60Vdc
- LED input status indicator
- 4000Vac optical isolation
- IP20 "touch safe" housing

Mftrs. List No.	Current	Output Voltage	Input Voltage	Output	Order Code
84137750	10A	3V DC to 60V DC	3V DC to 32V DC	Transistor	193-6409
84137860	15A	1V DC to 100V DC	3V DC to 32V DC	FET	193-6410
84137870	30A	1V DC to 50V DC	3V DC to 32V DC	FET	193-6411

641320

Mftrs.		Price Each				
List No.	Order Code	1+	10+	25+	50+	100+
84137750	193-6409●					
84137860	193-6410●					
84137870	193-6411●					

Dual Output Panel Mount SSRs

Crouzet

NEW

- True 40 amp per channel rating at 240Vac
- Dual input channels for independent output operation
- Direct Bond Copper substrate for superior thermal performance
- Back-to-back SCR output for heavy industrial loads
- 4-15Vdc or 17-32Vdc per channel input rating
- Zero-crossing (resistive loads) or random-fire (inductive loads) outputs
- No external transient protection required (internal TVS)
- 4000Vac Optical Isolation
- 1/4" quick connect

Mftrs. List No.	Current	Output Voltage	Input Voltage	Termination	Switching	Order Code
84140800	25A	24V AC to 280V AC	4V DC to 15V DC	Quick Connect	Zero voltage	193-6413
84140810	25A	24V AC to 280V AC	17V DC to 32V DC	Quick Connect	Zero voltage	193-6415
84140900	40A	24V AC to 280V AC	4V DC to 15V DC	Quick Connect	Zero voltage	193-6416
84140901	40A	24V AC to 280V AC	4V DC to 15V DC	Quick Connect	Instantaneous	193-6417
84140910	40A	24V AC to 280V AC	17V DC to 32V DC	Quick Connect	Zero voltage	193-6418

640531

Mftrs.		Price Each				
List No.	Order Code	1+	10+	25+	50+	100+
84140800	193-6413●					
84140810	193-6415●					
84140900	193-6416●					
84140901	193-6417●					
84140910	193-6418●					

20A DIN Rail Mount SSR

Crouzet

Single Phase Hybrid Power Relay

NEW

Hybrid relay switching is controlled by a microprocessor. When switched on, the circuit is closed by the solid state element and the load energised. The solid state element is short-circuited a few milliseconds later by an electro-mechanical relay contact, which maintains the load. The reverse cycle operates when the circuit is de-energised.

- 20A output (resistive) output
- Life >5 million full load operations
- 17.5mm DIN rail mount
- Zero volt load switching by the SSR contacts - increased life of switched elements
- No current switching by mechanical contacts - no contact arcing, minimum relay wear

Mftrs. List No.	Current	Output Voltage	Input Voltage	Switching	Order Code
84138001	20A	90V AC to 260V AC	90V AC to 260V AC	Zero Crossing	193-6412

641322

Mftrs.		Price Each				
List No.	Order Code	1+	10+	25+	50+	100+
84138001	193-6412●					

DIN Rail Mount SSRs

Crouzet

NEW

- Integral heat sink eliminates the need for complex thermal calculations
- DBC substrate for superior thermal performance
- Epoxy-free design minimizes internal component stress
- Standard ratings up to 45 amps at 600Vac
- No external transient protection required (internal TVS)
- LED indicator clearly identifies the relay's input status
- IP20 touch-safe housing
- AC or DC inputs
- 4000Vac optical isolation
- Relay or contactor configuration

Mftrs. List No.	Current	Output Voltage	Input Voltage	Output Type	Switching	Order Code
22.5mm - Contactor Configuration						
GNR10ACZ	10A	24Vrms to 280Vrms	180V AC to 280V AC	Triac	Zero Voltage	193-6480
GNR10DCZ	10A	24Vrms to 280Vrms	4V DC to 32V DC	Triac	Zero Voltage	193-6481
GNR20DCZ	20A	48Vrms to 600Vrms	4V DC to 32V DC	SCR	Zero Voltage	193-6482
GNR30ACZ	30A	48Vrms to 600Vrms	180V AC to 280V AC	SCR	Zero Voltage	193-6488
GNR30DCR	30A	48Vrms to 600Vrms	4V DC to 32V DC	SCR	Instantaneous	193-6489
GNR30DCZ	30A	48Vrms to 600Vrms	4V DC to 32V DC	SCR	Zero Voltage	193-6490
22.5mm - Relay Configuration						
GNR20DHZ	20A	48Vrms to 600Vrms	4V DC to 32V DC	SCR	Zero Voltage	193-6483
45mm - Contactor Configuration						
GNR35DCZ	35A	48Vrms to 600Vrms	4V DC to 32V DC	SCR	Zero Voltage	193-6491
GNR45DCZ	45A	48Vrms to 600Vrms	4V DC to 32V DC	SCR	Zero Voltage	193-6492
45mm - Relay Configuration						
GNR45DHZ	45A	48Vrms to 600Vrms	4V DC to 32V DC	SCR	Zero Voltage	193-6493
90mm - Three Phase Contactor Configuration						
GNR25ACZ	25A	48Vrms to 600Vrms	180V AC to 280V AC	SCR	Zero Voltage	193-6484
GNR25DCR	25A	48Vrms to 600Vrms	4V DC to 32V DC	SCR	Instantaneous	193-6485
GNR25DCZ	25A	48Vrms to 600Vrms	4V DC to 32V DC	SCR	Zero Voltage	193-6486

640540

Mftrs.		Price Each				
List No.	Order Code	1+	10+	25+	50+	100+
22.5mm - Contactor Configuration						
GNR10ACZ	193-6480●					
GNR10DCZ	193-6481●					
GNR20DCZ	193-6482●					
GNR30ACZ	193-6488●					
GNR30DCR	193-6489●					
GNR30DCZ	193-6490●					
22.5mm - Relay Configuration						
GNR20DHZ	193-6483●					
45mm - Contactor Configuration						
GNR35DCZ	193-6491●					
GNR45DCZ	193-6492●					

Solid State Relays - Crouzet - continued

DIN Rail Mount SSRs - continued

Mftrs. List No.	Order Code	Price Each 1+	10+	25+	50+	100+
45mm - Relay Configuration						
GNR45DHZ	**193-6493●**					
90mm - Three Phase Contactor Configuration						
GNR25ACZ	**193-6484●**					
GNR25DCR	**193-6485●**					
GNR25DCZ	**193-6486●**					

Three Phase SSRs

Crouzet

NEW

- Ratings up to 50 amps per phase at 530Vac
- Epoxy-free design minimizes internal component stress
- 100k-cycle UL508 Endurance rating for enhanced reliability
- No external transient protection required (Internal TVS)
- Back-to-back SCR output for heavy industrial loads

Mftrs. List No.	Current	Output Voltage	Input Voltage	Termination	Switching	Order Code
GN025DSR	25A	48Vrms to 530Vrms	4V DC to 32V DC	Screw	Instantaneous	193-6471
GN325ASZ	25A	48Vrms to 600Vrms	180V AC to 280V AC	Screw	Zero voltage	193-6472
GN325BSZ	25A	48Vrms to 600Vrms	90V AC to 140V AC	Screw	Zero voltage	193-6473
GN325DSZ	25A	48Vrms to 600Vrms	4V DC to 32V DC	Screw	Zero voltage	193-6474
GN325ESZ	25A	48Vrms to 600Vrms	18V AC to 36V AC	Screw	Zero voltage	193-6476
GN350ASZ	50A	48Vrms to 600Vrms	180V AC to 280V AC	Screw	Zero voltage	193-6477
GN350DSZ	50A	48Vrms to 600Vrms	4V DC to 32V DC	Screw	Zero voltage	193-6478
GN350ESZ	50A	48Vrms to 600Vrms	18V AC to 36V AC	Screw	Zero voltage	193-6479

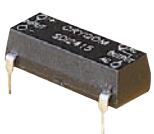
640534

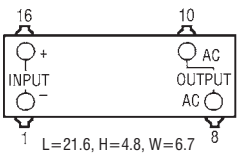
Mftrs. List No.	Order Code	Price Each 1+	10+	25+	50+	100+
GN025DSR	**193-6471●**					
GN325ASZ	**193-6472●**					
GN325BSZ	**193-6473●**					
GN325DSZ	**193-6474●**					
GN325ESZ	**193-6476●**					
GN350ASZ	**193-6477●**					
GN350DSZ	**193-6478●**					
GN350ESZ	**193-6479●**					

Solid State Relays - Crydom

1.5A-SDI/SDV Series

crydom





L=21.6, H=4.8, W=6.7

- Miniature ac SSRs in compact 16 pin DIP package
- Suitable for high density PCB mounting
- SDI is current operated, SDV is voltage operated
- Zero voltage or random switching versions available
- SCR output

Load voltage range (Vrms)	Control current (mA)	Control voltage (V dc)	Load Current (A)	Mftrs. List No.	Order Code
12V AC to 280V AC	10 - 50	—	0.025 - 1.5	SDI2415	120-0272
12V AC to 280V AC	10 -50	—	0.025 - 1.5	SDI2415R	193-6539
12V AC to 280V AC	—	3.5 - 10	0.025 - 1.5	SDV2415	120-0273

Isolation 3.75kV rms Off state dv/dt 500V/µs

207028

Load Rating	Order Code	Price Each 1+	10+	25+	50+	100+
Current Controlled Input - Zero-Cross						
1.5A	**120-0272●**					
Current Controlled Input - Random Turn-On						
1.5A	NEW **193-6539●**					
Voltage Controlled Input - Zero-Cross						
1.5A	**120-0273●**					

1A/1.5A/2A/3A PCB

crydom

Mini SIP Case Style

- Compact SIL epoxy dipped package
- 0.10" grid lead spacing
- Ideal for low current ac and dc loads
- NO and NC Output styles
- Logic compatible inputs
- Zero voltage switching

Control voltage 4 -10V dc4
Input current (typ.) 10mA (ac types) 15.2 - 20mA (dc types)
Blocking voltage 600V pk
dv/dt 200V/s

Load Current	Isolation	Surge Current	Load Voltage	Output Function	Order Code
DC Input - 240V ac Output					
25mA - 1A rms	2.5kV rms	40A pk	24Vrms to 280Vrms	Zero Cross	121-3165
25mA - 1.5A rms	2.5kV rms	10A pk	12Vrms to 280Vrms	Zero Cross	120-0222
25mA - 1.5A rms	4kV rms	10A pk	12Vrms to 280Vrms	Zero Cross	120-0224
60mA - 2A rms	2.5kV rms	120A pk	12Vrms to 280Vrms	Zero Cross	120-0223
60mA - 2A rms	2.5kV rms	120A pk	12Vrms to 280Vrms	Random Turn-On	193-6428
DC Input - 60V dc Output - SPST - NO					
0 - 3A dc	2.5kV rms	12A dc (10ms)	0V DC to 60V DC	–	120-0225

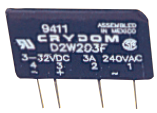
207004

Load Current	Mftrs. List No.	Order Code	Price Each 1+	10+	50+	100+	+
DC Input - 240V ac Output							
1A	AO241	**121-3165●**					
1.5A	ASO241	**120-0222●**					
1.5A	CX241	**120-0224●**					
2A	ASO242	**120-0223●**					
2A	ASO242R	NEW **193-6428●**					
DC Input - 60V dc Output							
3A	DMO063	**120-0225●**					

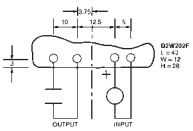
2A/3A/3.5A PCB -

crydom

D2W Series



H=30
W=43
D=12



- Compact SIL epoxy dipped package
- Built in snubber network (AC)
- Zero voltage switching
- **UL** recognised, **CSA** certified

Control voltage 3 - 32V dc
Input current 3mA @ 5V dc, 19mA @ 28V dc
Isolation 4kV rms
Load voltage 24 - 280V rms
Blocking voltage 600V pk
Off-state dv/dt 200V/µs

Load Current	Surge Current (max.)	Mftrs. List No.	Order Code
60mA - 2A rms	28A pk	D2W202F	120-0279
60mA - 3A rms	70A pk	D2W203F	120-0280
60mA - 3.5A rms	80A pk	D2W203F11	120-0281

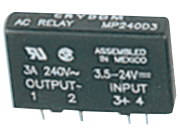
207143

Order Code	Price Each 1+	10+	25+	50+	100+
120-0279●					
120-0280●					
120-0281●					

3A/4A PCB -

crydom

MP Series



- AC type Triac output with zero voltage switching
- DC type Bipolar transistor output
- SIL package
- Suitable for logic level control
- Snubber network
- **CSA** and **VDE** Approved, **UL** Recognised.

H = 25.4, W = 43.1, D = 10.2mm

Input Control Current	Input Control Voltage	Surge Current Pk.	Load Voltage	Output Load Current	Type	Mftrs. List No.	Order Code
DC Input - AC Output							
2.6mA	3.5 to 32V	90A	24 - 280V	20mA to 3A	Triac - NO	MP240D3	120-0201
2.6mA	3.5 to 32V	130A	24 - 280V	20mA to 4A	Triac - NO	MP240D4	120-0202
DC Input - DC Output							
2.6mA	3.5 to 32VDC	5A	24 - 280V	0.02A to 3A	Transistor - NO	MPDCD3	120-0204
2.6mA	3 to 32V	5A	3 - 60V	0.02A to 3A	Transistor - NC	MPDCD3-B1	61-3902

206959

RoHS ● Compliant ▲ Non-compliant

Load Current	Order Code	Price Each 1+	10+	50+	100+	250+
DC Input - 240VAC Output						
20mA to 3AMP240D33A	**120-0201**					
20mA to 4AMP240D44A	**120-0202**					
DC Input - 60VDC - Output						
20mA to 3AMPDCD3	**120-0204**					
0.02A to 3A	**161-3902**					

AC and DC Control - PCB Mount

crydom

CX/CMX Series

- High power switching in SIL package
- Extra high surge rating and extra low (off state) leakage
- **UL** Recognised, **CSA** and **VDE** approved
- CX240D5 conforms to **EN60950:1993**

Mftrs. List No.	Control Voltage	Load Voltage	Current	Output Type	Output Function	Order Code
DC Input - AC Output						
CX240D5	3V DC to 15V DC	12Vrms to 280Vrms	5A	SCR	–	120-0213
CX480D5	4V DC to 15 VDC	48Vrms to 660Vrms	5A	SCR	–	120-0214
CX380D5	4V DC to 15 VDC	48Vrms to 530Vrms	5A	SCR	–	161-3824
CX240D5R	3V DC to 15V DC	12Vrms to 280Vrms	5A	SCR	–	161-3825
CX380D5R	4V DC to 15 VDC	48Vrms to 530Vrms	5A	SCR	–	161-3826
CXE240D5	15V DC to 32V DC	12Vrms to 280Vrms	5A	SCR	–	161-3828
CXE380D5	15V DC to 32V DC	48Vrms to 530Vrms	5A	SCR	–	161-3829
CX241R	4V DC to 10V DC	12Vrms to 280Vrms	1.5A	SCR	Random Turn-On	193-6450
CXE240A5	18V AC to 36V AC	12V AC to 280V AC	5A	SCR	Zero Cross	193-6452
CXE240A5R	18V AC to 36V AC	12V AC to 280V AC	5A	SCR	Random Turn-On	193-6453
CXE240D5R	15V DC to 32V DC	12V AC to 280V AC	5A	SCR	Random Turn-On	193-6454
CXE380D5R	15V DC to 32V DC	48V AC to 530V AC	5A	SCR	Random Turn-On	193-6455
CXE480D5R	15V DC to 32V DC	48V AC to 660V AC	5A	SCR	Random Turn-On	193-6456
DC Input - DC Output						
CMX60D5	3V DC to 10V DC	0V DC to 60V DC	5A	MOSFET	–	120-0212
CMX60D10	3V DC to 10V DC	0V DC to 60V DC	10A	MOSFET	–	120-0211
CMX60D20	3V DC to 10V DC	0V DC to 60V DC	20A	MOSFET	–	161-3823
CMX100D10	3V DC to 10V DC	0V DC to 100V DC	10A	MOSFET	–	177-9773
CMX100D6	3V DC to 10V DC	0V DC to 100V DC	6A	MOSFET	–	193-6437
CMX200D3	3V DC to 10V DC	0V DC to 200V DC	3A	MOSFET	–	193-6439
CMXE100D10	20V DC to 28V DC	0V DC to 100V DC	10A	MOSFET	–	193-6441
CMXE100D6	20V DC to 28V DC	0V DC to 100V DC	6A	MOSFET	–	193-6442
CMXE200D3	20V DC to 28V DC	0V DC to 200V DC	3A	MOSFET	–	193-6443
CMXE60D10	20V DC to 28V DC	0V DC to 60V DC	10A	MOSFET	–	193-6444
CMXE60D5	20V DC to 28V DC	0V DC to 60V DC	5A	MOSFET	–	193-6445

206976

Load Rating	Order Code	Price Each 1+	10+	25+	50+
DC Input - AC Output					
5A @ 12Vrms to 280Vrms	**120-0213**				
5A @ 48Vrms to 660Vrms	**120-0214**				
5A @ 48Vrms to 530Vrms	**161-3824**				
5A @ 12Vrms to 280Vrms	**161-3825**				
5A @ 48Vrms to 530Vrms	**161-3826**				
5A @ 12Vrms to 280Vrms	**161-3828**				
5A @ 48Vrms to 530Vrms	**161-3829**				
1.5A @ 12Vrms to 280Vrms	NEW **193-6450**				
5A @ 12V AC to 280V AC	NEW **193-6452**				
5A @ 12V AC to 280V AC	NEW **193-6453**				
5A @ 12V AC to 280V AC	NEW **193-6454**				
5A @ 48V AC to 530V AC	NEW **193-6455**				
5A @ 48V AC to 660V AC	NEW **193-6456**				
DC Input - DC Output					
5A @ 0V DC to 60V DC	**120-0212**				
10A @ 0V DC to 60V DC	**120-0211**				
20A @ 0V DC to 60V DC	**161-3823**				
10A @ 0V DC to 100V DC	NEW **177-9773**				
6A @ 0V DC to 100V DC	NEW **193-6437**				
3A @ 0V DC to 200V DC	NEW **193-6439**				
10A @ 0V DC to 100V DC	NEW **193-6441**				
6A @ 0V DC to 100V DC	NEW **193-6442**				
3A @ 0V DC to 200V DC	NEW **193-6443**				
10A @ 0V DC to 60V DC	NEW **193-6444**				
5A @ 0V DC to 60V DC	NEW **193-6445**				

Mini SIP SSRs

crydom

- Ratings to 2A @ 280 VAC
- Dual SCR output (normally open)
- DC control
- Zero-crossing (resistive loads) or random-fire (inductive loads) output
- Plastic encapsulated

NEW

Mftrs. List No.	Current	Output Voltage	Input Voltage	Output Function	Order Code
LC241	1.5A	12Vrms to 280Vrms	4V DC to 10V DC	Zero Cross	193-6509
LC241R	1.5A	12Vrms to 280Vrms	4V DC to 10V DC	Random Turn-On	193-6510
LC242	2A	12Vrms to 280Vrms	4V DC to 10V DC	Zero Cross	193-6511
LC242R	2A	12Vrms to 280Vrms	4V DC to 10V DC	Random Turn-On	193-6512

640565

Mftrs. List No.	Order Code	Price Each 1+	10+	25+	50+	100+
LC241	**193-6509**					
LC241R	**193-6510**					
LC242	**193-6511**					
LC242R	**193-6512**					

AC and DC Control - PCB Mount

crydom

CN Series

- Mini SIP SSRs
- Ratings 24 VDC @ 3.5 A, 48 VDC @ 100 mA and 240 VAC @ 2 A
- DC Control 5, 24 and 60 V
- IP67-protected fully encapsulated
- PCB mounted or installs in DRSCN Series sockets
- UL & cUL recognized, UL 100 K cycle extended endurance tested, CE & RoHS compliant

Mftrs. List No.	Operating Voltage	Load Current	Control Voltage Range	Input Current	Order Code
CN024D05	0V DC to 24V DC	3.5A	3V DC to 12V DC	10mA @ 5V	182-1821
CN024D24	0V DC to 24V DC	3.5A	15V DC to 30V DC	7mA @ 24V	182-1822
CN024D60	0V DC to 24V DC	3.5A	38V DC to 72V DC	3mA @ 60V	182-1823
CN048D05	0V DC to 48V DC	100mA	3V DC to 12V DC	4mA @ 5V	182-1824
CN048D24	0V DC to 48V DC	100mA	15V DC to 30V DC	5mA @ 24V	182-1825
CN048D60	0V DC to 48V DC	100mA	38V DC to 72V DC	3mA @ 60V	182-1826
CN240A05	24V AC to 280V AC	2A	3V DC to 12V DC	15mA @ 5V	182-1827
CN240A24	24V AC to 280V AC	2A	15V DC to 30V DC	6mA @ 24V	182-1828
CN240A60	24V AC to 280V AC	2A	38V DC to 72V DC	4mA @ 60V	182-1831

Relay/Socket Compatibility

Mftrs. List No.	For Use With	Input Voltage	Order Code
DRSCN05	CN024D05, CN048D05, CN240A05	5V DC	182-1832
DRSCN120	CN024D24, CN048D24, CN240A24	24V DC	182-1833
DRSCN24	CN024D60, CN048D60, CN240A60	120V AC	182-1834
DRSCN240	CN024D60, CN048D60, CN240A60	240V AC	182-1835

610576

Mftrs. List No.	Order Code	Price Each 1+	10+	25+	50+
CN024D05	**182-1821**				
CN024D24	**182-1822**				
CN024D60	**182-1823**				
CN048D05	**182-1824**				
CN048D24	**182-1825**				
CN048D60	**182-1826**				
CN240A05	**182-1827**				
CN240A24	**182-1828**				
CN240A60	**182-1831**				
Accessories					
DRSCN05 Socket	**182-1832**				
DRSCN120 Socket	**182-1833**				
DRSCN24 Socket	**182-1834**				
DRSCN240 Socket	**182-1835**				
CNLB Marker Strips - Blank	**182-1836**				
CNLN Marker Strips - No. 1 to 10	**182-1837**				
CNL2 Marker Strips - No. 11 to 20	**182-1838**				

PCB Mount SSRs

crydom

- SIP SSR
- Ratings to 12A @ 280 VAC
- SCR output for heavy industrial loads
- DC control
- Zero-crossing (resistive loads) or random-fire (inductive loads) output

NEW

Mftrs. List No.	Current	Output Voltage	Input Voltage	Output Function	Order Code
LS240D12	12A	24V AC to 280V AC	4V DC to 10V DC	Zero Cross	193-6518
LS240D12R	12A	24V AC to 280V AC	4V DC to 10V DC	Random Turn-On	193-6519
LS240D8	8A	24V AC to 280V AC	4V DC to 10V DC	Zero Cross	193-6520
LS240D8R	8A	24V AC to 280V AC	4V DC to 10V DC	Random Turn-On	193-6521

640575

Mftrs. List No.	Order Code	Price Each 1+	10+	25+	50+	100+
LS240D12	**193-6518**					
LS240D12R	**193-6519**					
LS240D8	**193-6520**					
LS240D8R	**193-6521**					

25A 'PowerFin' -

PF Series

- Integral heatsink gives a ultra high steady state current rating
- Low leakage current
- SCR output
- DC control
- High surge rating of 250A Pk.
- High blocking voltage
- **VDE** and **CE** Approvals, **UL** Recognised

H=34.3 (excl. pins), W=43.2, D=22.8

Mftrs. List No.	Current	Output Voltage	Input Voltage	Order Code
PF240D25	25A	12V AC to 280V AC	3V DC to 15V DC	120-0285
PF240D25R	25A	12V AC to 280V AC	3V DC to 15V DC	161-3907
PFE240A25	25A	12V AC to 280V AC	18V AC to 36V AC	193-6534
PFE240D25	25A	12V AC to 280V AC	15V DC to 32V DC	193-6535
PF380D25	25A	48V AC to 530V AC	4V DC to 15 VDC	193-6533
PFE380D25	25A	48V AC to 530V AC	15V DC to 32V DC	193-6536
PF480D25	25A	48V AC to 660V AC	4V DC to 15 VDC	161-3908
PFE480D25	25A	48V AC to 660V AC	15V DC to 32V DC	193-6537
PFE480D25R	25A	48V AC to 660V AC	15V DC to 32V DC	193-6538

213433

Mftrs. List No.	Order Code	Price Each 1+	10+	25+	50+	100+
PF240D25	**120-0285**					
PF240D25R	**161-3907**					
PFE240A25	NEW **193-6534**					
PFE240D25	NEW **193-6535**					
PF380D25	NEW **193-6533**					
PFE380D25	NEW **193-6536**					
PF480D25	**161-3908**					
PFE480D25	NEW **193-6537**					
PFE480D25R	NEW **193-6538**					

40A PCB Mount SSRs

NEW

- DIP SSR
- Ratings to 40A @ 480 V AC with external heat sink
- SCR output for heavy industrial loads
- DC control
- Zero-crossing (resistive loads) or random-fire (inductive loads) output

Mftrs. List No.	Current	Output Voltage	Input Voltage	Output Function	Order Code
LR1200480D40	40A	48V AC to 530V AC	4V DC to 32V DC	Zero Cross	193-6513
LR1200480D40R	40A	48V AC to 530V AC	4V DC to 32V DC	Random Turn-On	193-6514
LR600240D40	40A	24V AC to 280V AC	4V DC to 32V DC	Zero Cross	193-6515
LR600240D40R	40A	24V AC to 280V AC	4V DC to 32V DC	Random Turn-On	193-6516

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Mftrs. List No.	Order Code	Price Each 1+	10+	25+	50+	100+
LR1200480D40	**193-6513**					
LR1200480D40R	**193-6514**					
LR600240D40	**193-6515**					
LR600240D40R	**193-6516**					

Plug-in SSR

NEW

- AC and DC output solid state selay in an industry standard electromechanical plug in package
- Ratings of 3 & 5 Amps
- Load voltage range of 24-280VAC, 1-48VDC and 1-80VDC
- Fits standard DIN rail & PCB mountable sockets
- LED input status indicator
- AC or DC control
- AC output: Horsepower rated
- DC output: Motor controller rated

Mftrs. List No.	Output Voltage	Control Voltage	Operational Current	Surge Current	Switching Mode	Order Code
ED06C5	1V DC to 48V DC	18V DC to 32V DC	5A	60A		189-5432
ED06D5	1V DC to 48V DC	5V DC to 15V DC	5A	60A		189-5433
ED06E5	1V DC to 48V DC	18V AC to 36V AC	5A	60A		189-5434
ED10B5	1V DC to 80V DC	90V AC to 140V AC	5A	60A		189-5435
ED10C5	1V DC to 80V DC	18V DC to 32V DC	5A	60A		189-5437
ED10D5	1V DC to 80V DC	5V DC to 15V DC	5A	60A		189-5438
ED10E5	1V DC to 80V DC	18V AC to 36V AC	5A	60A		189-5439
ED24B5	24V AC to 280V AC	90V AC to 140V AC	5A	625A	Zero Crossing	189-5440
ED24B5R	24V AC to 280V AC	90V AC to 140V AC	5A	625A	Random Turn On	189-5441
ED24C3	24V AC to 280V AC	18V DC to 32V DC	3A	250A	Zero Crossing	189-5442
ED24C3R	24V AC to 280V AC	18V DC to 32V DC	3A	250A	Random Turn On	189-5443
ED24C5	24V AC to 280V AC	18V DC to 32V DC	5A	625A	Zero Crossing	189-5444
ED24D3	24V AC to 280V AC	3V DC to 15V DC	3A	250A	Zero Crossing	189-5445
ED24D3R	24V AC to 280V AC	3V DC to 15V DC	3A	250A	Random Turn On	189-5449
ED24D5	24V AC to 280V AC	3V DC to 15V DC	5A	625A	Zero Crossing	189-5452
ED24E5	24V AC to 280V AC	18V AC to 36V AC	5A	625A	Zero Crossing	189-5453
ED24E5R	24V AC to 280V AC	18V AC to 36V AC	5A	625A	Random Turn On	189-5454

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Mftrs. List No.	Order Code	Price Each 1+	10+	25+	50+	100+
ED06C5	**189-5432**					
ED06D5	**189-5433**					
ED06E5	**189-5434**					
ED10B5	**189-5435**					
ED10C5	**189-5437**					
ED10D5	**189-5438**					
ED10E5	**189-5439**					
ED24B5	**189-5440**					
ED24B5R	**189-5441**					
ED24C3	**189-5442**					
ED24C3R	**189-5443**					
ED24C5	**189-5444**					
ED24D3	**189-5445**					
ED24D3R	**189-5449**					
ED24D5	**189-5452**					
ED24E5	**189-5453**					
ED24E5R	**189-5454**					
Accessories						
PCBSED PCB Socket	**189-5455**					
DRSED DIN Rail Socket	**189-5456**					

DIN Rail AC and DC SSR Relays

- Ready-to-use SSR assemblies for either AC or DC output
- 10 mm Single channel and 54 mm Four channel DIN Rail mount assemblies available
- 3 to 15 or 15 to 32 VDC input versions include LED indicator
- 3 to 32 VDC, 18 to 36 and 90 to 140 AC input control versions do not include LED indicator
- AC output ratings up to 300 VAC @ 8 Amps (UL) and 380 VAC 8 amps (IEC)
- DC output ratings up to 200 VDC and 8 Amps
- Cage style screw terminals for easy and reliable wire connection
- Socket clip fits all standard 35 mm DIN rail profiles

Mftrs. List No.	Output Voltage Range (V)	Output Current Range (A)	Control Voltage Range (V)	Input Current @ 5/24 Vdc (mA)	Isolation Voltage (V_{rms})
Single Channel DC Output					
DRA1-CMX100D10	1 - 100	0 - 8	3 - 10	15	2.5
DRA1-CMX200D3	1 - 200	0 - 3	3 - 10	15	2.5
DRA1-CMX60D10	1 - 60	0 - 8	3 - 10	15	2.5
DRA1-CMX60D5	1 - 60	0 - 5	3 - 10	15	2.5
DRA1-CMXE100D10	1 - 100	0 - 8	20 - 28	15	2.5
DRA1-CMXE100D6	1 - 100	0 - 6	20 - 28	15	2.5
DRA1-CMXE60D10	1 - 60	0 - 8	20 - 28	15	2.5
DRA1-CMXE60D5	1 - 60	0 - 5	20 - 28	15	2.5
DRA1-MPDCD3	3 - 60	0.02 - 3	3 - 32	3	4
DRA1-MPDCD3-B	3 - 60	0.02 - 3	3 - 32	3	4
Single Channel AC Output					
DRA1-CX240D5	12 - 280	0.06 - 5	3 - 15	15	4
DRA1-CX240D5-B	12 - 280	0.06 - 5	4 - 28	15	4
DRA1-CX240D5R	12 - 280	0.06 - 5	3 - 15	15	4
DRA1-CX380D5	48 - 530	0.06 - 5	4 - 15	15	4
DRA1-CX380D5R	48 - 530	0.06 - 5	4 - 15	15	4
DRA1-CXE240D5	12 - 280	0.06 - 5	15 - 32	15	4
DRA1-CXE240D5R	12 - 280	0.06 - 5	15 - 32	15	4
DRA1-MCX240D5	12 - 280	0.06 - 5	3 - 15	15	4
DRA1-MCX380D5	48 - 530	0.06 - 5	4 - 15	15	4
DRA1-MCXE240D5	12 - 280	0.06 - 5	15 - 32	15	4
DRA1-MCXE380D5	48 - 530	0.06 - 5	15 - 32	15	4
DRA1-MP240D3	24 - 280	0.02 - 3	3 - 32	3	4
DRA1-MP240D4	24 - 280	0.02 - 4	3 - 32	3	4
DRA1-SPF240D25	12 - 280	0.06 - 8	3 - 15	15	4
DRA1-SPF240D25R	12 - 280	0.06 - 8	3 - 15	15	4
DRA1-SPF380D25R	48 - 530	0.06 - 8	4 - 15	15	4
Four Channel DC Output					
DRA4-CMX200D3	1 - 200	0 - 3	3 - 10	15	2.5
DRA4-CMXE100D10	1 - 100	0 - 8	20 - 28	15	2.5
Four Channel AC Output					
DRA4-CX240D5	12 - 280	0.06 - 5	3 - 15	15	4
DRA4-CXE240D5	12 - 280	0.06 - 5	15 - 32	15	4
DRA4-MCX240D5	12 - 280	0.06 - 5	3 - 15	15	4
DRA4-MCXE240D5	12 - 280	0.06 - 5	15 - 32	15	4

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Mftrs. List No.	Order Code	Price Each 1+	10+	25+	50+	100+
Single Channel DC Output						
DRA1-CMX100D10	**178-4032**					
DRA1-CMX200D3	**178-4034**					
DRA1-CMX60D10	**178-4035**					
DRA1-CMX60D5	**178-4036**					
DRA1-CMXE100D10	**178-4037**					
DRA1-CMXE100D6	**178-4038**					

Mftrs. List No.	Order Code	Price Each 1+	10+	25+	50+	100+
Single Channel DC Output						
DRA1-CMXE60D10	**178-4040**					
DRA1-CMXE60D5	**178-4041**					
DRA1-MPDCD3	**178-4059**					
DRA1-MPDCD3-B	**178-4060**					
Single Channel AC Output						
DRA1-CX240D5	**178-4042**					
DRA1-CX240D5-B	**178-4044**					
DRA1-CX240D5R	**178-4045**					
DRA1-CX380D5	**178-4046**					
DRA1-CX380D5R	**178-4047**					
DRA1-CXE240D5	**178-4048**					
DRA1-CXE240D5R	**178-4049**					
DRA1-MCX240D5	**178-4051**					
DRA1-MCX380D5	**178-4052**					
DRA1-MCXE240D5	**178-4053**					
DRA1-MCXE380D5	**178-4054**					
DRA1-MP240D3	**178-4057**					
DRA1-MP240D4	**178-4058**					
DRA1-SPF240D25	**178-4062**					
DRA1-SPF240D25R	**178-4063**					
DRA1-SPF380D25R	**178-4065**					
Four Channel DC Output						
DRA4-CMX200D3	**178-4071**					
DRA4-CMXE100D10	**178-4072**					
Four Channel AC Output						
DRA4-CX240D5	**178-4074**					
DRA4-CXE240D5	**178-4075**					
DRA4-MCX240D5	**178-4076**					
DRA4-MCXE240D5	**178-4077**					
Single Channel Socket						
DRS1	**178-4078**					
Four Channel Socket						
DRS4	**178-4081**					

DIN rail SSR

crydom

Series OneDR

NEW

Crydoms SeriesOne DR Solid State Relays were developed to offer the advantages of Crydom's thermal management technology in a compact 11 & 18 mm wide IP20 housing with unique integrated heat sink. The SeriesOne DR provides a quick and easy installation onto any standard 35 mm DIN rail profile paired with high output power ratings.

- Single channel 6 & 12 Amp rated output current
- Two independent 6 Amp channels in dual channel versions
- Single channel 60 & 100 VDC, 24 to 600 VAC rated operation voltage
- Dual channel 24 to 600 VAC rated operation voltage
- 4-32 VDC, 24, 120 & 230 VAC control input options for single channel versions
- 4-32 VDC control input options for single channel versions
- AC output versions with Zero Voltage Turn-On for resistive loads and Random Turn-On for inductive loads

Mftrs. List No.	Max. Operating Voltage	Control Voltage Range	Output Current	Random Turn-On
DR Series - 11mm				
DR06D06	1V DC to 60V DC	4V DC to 32V DC	6A	×
DR10D06	1V DC to 100V DC	4V DC to 32V DC	6A	×
DR24A06	24V AC to 280V AC	208V AC to 265V AC	6A	×
DR24B06	24V AC to 280V AC	90V AC to 140V AC	6A	×
DR24D06	24V AC to 280V AC	4V DC to 32V DC	6A	×
DR24D06R	24V AC to 280V AC	4V DC to 32V DC	6A	✓
DR24E06	24V AC to 280V AC	18V AC to 36V AC	6A	×
DR48D06	48V AC to 600V AC	4V DC to 32V DC	6A	×
DR48D06R	48V AC to 600V AC	4V DC to 32V DC	6A	✓
DR Series - 18mm				
DR06D12	1V DC to 60V DC	4V DC to 32V DC	12A	×
DR10D12	1V DC to 100V DC	4V DC to 32V DC	12A	×
DR24A12	24V AC to 280V AC	208V AC to 265V AC	12A	×
DR24B12	24V AC to 280V AC	90V AC to 140V AC	12A	×
DR24D12	24V AC to 280V AC	4V DC to 32V DC	12A	×
DR24D12R	24V AC to 280V AC	4V DC to 32V DC	12A	✓
DR24E12	24V AC to 280V AC	18V AC to 36V AC	12A	×
DR48A12	48V AC to 600V AC	208V AC to 265V AC	12A	×
DR48B12	48V AC to 600V AC	90V AC to 140V AC	12A	×
DR48D12	48V AC to 600V AC	4V DC to 32V DC	12A	×
DR48D12R	48V AC to 600V AC	4V DC to 32V DC	12A	✓
DR48E12	48V AC to 600V AC	18V AC to 36V AC	12A	×
DRD Series - 18mm				
DRD24D06	24V AC to 280V AC	4V DC to 32V DC	6A	×
DRD24D06R	24V AC to 280V AC	4V DC to 32V DC	6A	✓
DRD48D06	48V AC to 600V AC	4V DC to 32V DC	6A	×
DRD48D06R	48V AC to 600V AC	4V DC to 32V DC	6A	✓

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Mftrs. List No.	Order Code	Price Each 1+	10+	50+	100+
DR Series - 11mm					
DR06D06	**183-5926**				
DR10D06	**183-5928**				
DR24A06	**183-5930**				
DR24B06	**183-5933**				
DR24D06	**183-5935**				
DR24D06R	**183-5936**				
DR24E06	**183-5939**				
DR48D06	**183-5943**				
DR48D06R	**183-5945**				
DR Series - 18mm					
DR06D12	**183-5927**				
DR10D12	**183-5929**				
DR24A12	**183-5931**				
DR24B12	**183-5934**				
DR24D12	**183-5937**				
DR24D12R	**183-5938**				
DR24E12	**183-5940**				
DR48A12	**183-5941**				
DR48B12	**183-5942**				
DR48D12	**183-5946**				
DR48D12R	**183-5947**				
DR48E12	**183-5948**				
DRD Series - 18mm					
DRD24D06	**183-5949**				
DRD24D06R	**183-5950**				
DRD48D06	**183-5951**				
DRD48D06R	**183-5952**				

DIN Rail SSR Relays

crydom

- 6.2mm Din-Rail Mount (35 mm) SSR Assembly
- Ratings 24VDC @ 3.5A, 48VDC @ 100mA and 240VAC @ 2A
- 5 & 24 VDC and 120V & 240 VAC Control
- UL & cUL recognized @ 40°C, 100K-Cycle Endurance Test (SSR Only)
- CE & RoHS Compliant
- Yellow LED input status indicator

Mftrs. List No.	Input Voltage	Control Voltage Range	Operating Voltage	Max. Load Current	Order Code
DRA-CN024D05	5V DC	3V DC to 12V DC	0V DC to 24V DC	3.5A	182-1839
DRA-CN024D24	24V DC	15V DC to 30V DC	0V DC to 24V DC	3.5A	182-1840
DRA-CN048D24	24V DC	15V DC to 30V DC	0V DC to 48V DC	100mA	182-1845
DRA-CN240A05	5V DC	3V DC to 12V DC	24V AC to 280V AC	2A	182-1848
DRA-CN240A24	24V DC	15V DC to 30V DC	24V AC to 280V AC	2A	182-1849

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Mftrs. List No.	Order Code	Price Each 1+	10+	25+	50+	100+
DRA-CN024D05	**182-1839**					
DRA-CN024D24	**182-1840**					
DRA-CN048D24	**182-1845**					
DRA-CN240A05	**182-1848**					
DRA-CN240A24	**182-1849**					

5A to 20A

crydom

EL Series

NEW

- Rated at 5A, 10A or 20A @ 24-280 VAC
- Rated at 5A or 10A @ 100 VDC
- 5, 12 & 24 VDC Control
- Zero-crossing (resistive loads) or random-fire (inductive loads)
- 100% Solid State design

Mftrs. List No.	Control Voltage	Load Current	Load Voltage	Switching Mode
EL240A5-05	4V DC to 8V DC	5A	24V AC to 280V AC	Zero Cross Turn-On
EL240A5R-05	4V DC to 8V DC	5A	24V AC to 280V AC	Random Turn-On
EL240A5-12	10V DC to 14V DC	5A	24V AC to 280V AC	Zero Cross Turn-On
EL240A5R-12	10V DC to 14V DC	5A	24V AC to 280V AC	Random Turn-On
EL240A5-24	21V DC to 27V DC	5A	24V AC to 280V AC	Zero Cross Turn-On
EL240A5R-24	21V DC to 27V DC	5A	24V AC to 280V AC	Random Turn-On
EL240A10-05	4V DC to 8V DC	10A	24V AC to 280V AC	Zero Cross Turn-On

5A to 20A - continued

EL Series - continued

Mftrs. List No.	Control Voltage	Load Current	Load Voltage	Switching Mode
EL240A10R-05	4V DC to 8V DC	10A	24V AC to 280V AC	Random Turn-On
EL240A10-12	10V DC to 14V DC	10A	24V AC to 280V AC	Zero Cross Turn-On
EL240A10R-12	10V DC to 14V DC	10A	24V AC to 280V AC	Random Turn-On
EL240A10-24	21V DC to 27V DC	10A	24V AC to 280V AC	Zero Cross Turn-On
EL240A10R-24	21V DC to 27V DC	10A	24V AC to 280V AC	Random Turn-On
EL240A20-05	4V DC to 8V DC	20A	24V AC to 280V AC	Zero Cross Turn-On
EL240A20R-05	4V DC to 8V DC	20A	24V AC to 280V AC	Random Turn-On
EL240A20-12	10V DC to 14V DC	20A	24V AC to 280V AC	Zero Cross Turn-On
EL240A20R-12	10V DC to 14V DC	20A	24V AC to 280V AC	Random Turn-On
EL240A20-24	21V DC to 27V DC	20A	24V AC to 280V AC	Zero Cross Turn-On
EL240A20R-24	21V DC to 27V DC	20A	24V AC to 280V AC	Random Turn-On
EL100D5-05	4V DC to 8V DC	5A	3V DC to 100V DC	–
EL100D5-12	10V DC to 14V DC	5A	3V DC to 100V DC	–
EL100D5-24	21V DC to 27V DC	5A	3V DC to 100V DC	–
EL100D10-05	4V DC to 8V DC	10A	3V DC to 100V DC	–
EL100D10-12	10V DC to 14V DC	10A	3V DC to 100V DC	–
EL100D10-24	21V DC to 27V DC	10A	3V DC to 100V DC	–

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Mftrs. List No.	Order Code	Price Each 1+	10+	25+	50+	100+
EL240A5-05	**184-6100●**					
EL240A5R-05	**184-6101●**					
EL240A5-12	**184-6102●**					
EL240A5R-12	**184-6104●**					
EL240A5-24	**184-6105●**					
EL240A5R-24	**184-6106●**					
EL240A10-05	**184-6107●**					
EL240A10R-05	**184-6108●**					
EL240A10-12	**184-6109●**					
EL240A10R-12	**184-6110●**					
EL240A10-24	**184-6111●**					
EL240A10R-24	**184-6112●**					
EL240A20-05	**184-6113●**					
EL240A20R-05	**184-6114●**					
EL240A20-12	**184-6116●**					
EL240A20R-12	**184-6117●**					
EL240A20-24	**184-6118●**					
EL240A20R-24	**184-6119●**					
EL100D5-05	**184-6120●**					
EL100D5-12	**184-6121●**					
EL100D5-24	**184-6122●**					
EL100D10-05	**184-6123●**					
EL100D10-12	**184-6124●**					
EL100D10-24	**184-6125●**					

5A to 10A

crydom

NEW

CL Series

- Ratings of 5A and10A @ 24-280 VAC
- UL Approved, CE and RoHS Compliant
- AC or DC control
- Zero-crossing (resistive loads) or random-fire (inductive loads) output

Mftrs. List No.	Control Voltage	Load Current	Switching Mode	Package Style	Order Code
CL240A05	90V AC to 250V AC	5A	Zero Cross Turn-On	IP00	183-3490
CL240A05C	90V AC to 250V AC	5A	Zero Cross Turn-On	IP20	183-3491
CL240A05R	90V AC to 250V AC	5A	Random Turn-On	IP00	183-3493
CL240A05RC	90V AC to 250V AC	5A	Random Turn-On	IP20	183-3494
CL240A10	90V AC to 250V AC	10A	Zero Cross Turn-On	IP00	183-3495
CL240A10C	90V AC to 250V AC	10A	Zero Cross Turn-On	IP20	183-3496
CL240A10R	90V AC to 250V AC	10A	Random Turn-On	IP00	183-3497
CL240A10RC	90V AC to 250V AC	10A	Random Turn-On	IP20	183-3498
CL240D05	3V DC to 32V DC	5A	Zero Cross Turn-On	IP00	183-3499
CL240D05C	3V DC to 32V DC	5A	Zero Cross Turn-On	IP20	183-3500
CL240D05R	3V DC to 32V DC	5A	Random Turn-On	IP00	183-3501
CL240D05RC	3V DC to 32V DC	5A	Random Turn-On	IP20	183-3502
CL240D10	3V DC to 32V DC	10A	Zero Cross Turn-On	IP00	183-3503
CL240D10C	3V DC to 32V DC	10A	Zero Cross Turn-On	IP20	183-3504
CL240D10R	3V DC to 32V DC	10A	Random Turn-On	IP00	183-3505
CL240D10RC	3V DC to 32V DC	10A	Random Turn-On	IP20	183-3506

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Mftrs. List No.	Order Code	Price Each 1+	10+	50+	100+
CL240A05	**183-3490●**				
CL240A05C	**183-3491●**				
CL240A05R	**183-3493●**				
CL240A05RC	**183-3494●**				
CL240A10	**183-3495●**				
CL240A10C	**183-3496●**				
CL240A10R	**183-3497●**				
CL240A10RC	**183-3498●**				
CL240D05	**183-3499●**				
CL240D05C	**183-3500●**				
CL240D05R	**183-3501●**				
CL240D05RC	**183-3502●**				
CL240D10	**183-3503●**				
CL240D10C	**183-3504●**				
CL240D10R	**183-3505●**				
CL240D10RC	**183-3506●**				

2.5A to 125A Surface Mounting - 1 Series

crydom

L=57.2, W=44.4, H=22.2
Fixing Centres=47.6, dia 4.4

A range of AC switching SSRs with internal overvoltage protection fitted as standard. Over 50% of SSR failures are attributed to overvoltage. Traditionally, SSRs have been protected by MOVs (Metal Oxide Varistors) which degrade over a period of time. The TVS diodes fitted 'self trigger' the devices so that the overvoltage is passed harmlessly to the load. The benefits to the user are a fully protected SSR without the need for additional components or assembly whilst maintaining the Solid State Reliability and international approvals.
Applications include switching of pumps, motors, lamps, solenoids and heating elements. Zero cross types can reduce EMI.
Input status is indicated with a green LED.

- AC or DC control available
- **UL** recognised **CSA** and **VDE** approved
- Transparent safety cover available
- Zero voltage switching
- Conforms to **EN60950:1993**
- Thyristor output devices are suitable for inductive leads and high dv/dt applications
- **TVS and LED Version**
- Overvoltage protection
- Non degrading protection
- ZERO voltage or random switching (AC models only)
- Solid state reliability
- **UL** Recognised, **CSA** and **VDE** approved including protection
- Status indicating LED
- Microprocessor compatible input

Input voltage	90 - 280V ac (ac series) 3 to 32Vdc (dc series) 4.5 to 32VDC (P version)	Input resistance	60KΩ (ac series)60kohm 1500KΩ (dc series)
Isolation (input/output)	4kV rms	Off-state dv/dt	500V/µs
		Must release voltage	10V ac (ac series) 1V dc (dc series)

Load Current (A)	Load Voltage (V ac)	Output Device	Blocking Voltage (V_{DRM})	Single Cycle Surge (A)	Mftrs. List No.	Order Code
AC Input - 240V ac Output						
10	24Vrms to 280Vrms	Thyristor	600	120	A2410	120-0226
25	24Vrms to 280Vrms	Thyristor	600	250	A2425	120-0228
40	24Vrms to 280Vrms	Thyristor	600	625	A2440	120-0230
50	24Vrms to 280Vrms	Thyristor	600	625	A2450	120-0231
110	24Vrms to 280Vrms	SCR	600	1500	A24110	193-6422
AC Input - 240V ac Output - Random Turn-On						
25	24Vrms to 280Vrms	SCR	600	250	A2425-10	193-6424
50	24Vrms to 280Vrms	SCR	600	625	A2450-10	193-6425
AC Input - 240V ac Output with TVS and LED						
10	24Vrms to 280Vrms	SCR	600	120	A2410PG	193-6421
50	24Vrms to 280Vrms	SCR	600	625	A2450PG	193-6427
110	24Vrms to 280Vrms	SCR	600	1500	A24110PG	193-6423
AC Input - 480V ac Output						
50	80Vrms to 530Vrms	Thyristor	800	625	A4850	120-0234
75	80Vrms to 530Vrms	Thyristor	800	1000	A4875	120-0235
DC Input - 240V ac Output						
10	24Vrms to 280Vrms	Triac	500	70	TD2410	120-0267
10	24Vrms to 280Vrms	Thyristor	500	120	D2410	120-0237
25	24Vrms to 280Vrms	Triac	500	175	TD2425	120-0268
25	24Vrms to 280Vrms	Thyristor	600	250	D2425	120-0241
40	24Vrms to 280Vrms	Thyristor	600	625	D2440	120-0243
50	24Vrms to 280Vrms	Thyristor	600	625	D2450	120-0244
75	24Vrms to 280Vrms	Thyristor	600	1000	D2475	120-0246
90	24Vrms to 280Vrms	Thyristor	600	1200	D2490	120-0247
DC Input - 240V ac Output - Random Turn-On						
50	24Vrms to 280Vrms	SCR	600	625	D2450-10	161-3837
90	24Vrms to 280Vrms	SCR	600	1200	D2490-10	193-6459
DC Input - 240V ac Output with TVS and LED						
10	24Vrms to 280Vrms - 280	Thyristor	600	120	D2410PG	120-0238
25	24Vrms to 280Vrms - 280	Thyristor	600	250	D2425PG	120-0242
50	24Vrms to 280Vrms - 280	Thyristor	600	625	D2450PG	120-0245
75	24Vrms to 280Vrms	SCR	600	1000	D2475PG	193-6458
90	24Vrms to 280Vrms	SCR	600	1200	D2490PG	193-6460
125	24Vrms to 280Vrms	SCR	600	1750	D24125PG	193-6457
DC Input - 480V ac Output						
25	80Vrms to 530Vrms	Thyristor	800	250	D4825	120-0248
40	80Vrms to 530Vrms	Thyristor	800	625	D4840	120-0249
50	80Vrms to 530Vrms	Thyristor	800	625	D4850	120-0250
75	80Vrms to 530Vrms	Thyristor	800	1000	D4875	120-0251
90	80Vrms to 530Vrms	Thyristor	800	1200	D4890	120-0253
DC Input - 200V dc Output						
40	0V DC to 200V DC	MOSFET	600		D2D40	193-6461
DC Input - 480V ac Output - High Blocking Voltage						
25	48Vrms to 530Vrms	Thyristor	1200	250	HD4825	120-0262
50	48Vrms to 530Vrms	Thyristor	1200	625	HD4850	120-0263
50	48Vrms to 530Vrms	SCR	1200	625	H12D4850	161-3839
50	48Vrms to 530Vrms	SCR	1200	625	HA4850	193-6498
75	48Vrms to 530Vrms	SCR	1200	1000	HA4875	193-6501
75	48Vrms to 530Vrms	SCR	1200	1000	HD4875	193-6503

Load Current (A)	Load Voltage (V ac)	Output Device	Blocking Voltage (V_{DRM})	Single Cycle Surge (A)	Mftrs. List No.	Order Code
DC Input - 480V ac Output - High Blocking Voltage						
90	48Vrms to 530Vrms	Thyristor	1200	1200	HD4890	120-0265
90	48Vrms to 530Vrms	SCR	1200	1200	H12D4890	161-3840
110	48Vrms to 530Vrms	Thyristor	1200	9340	HD48110	120-0260
125	48Vrms to 530Vrms	Thyristor	1200	1500	HD48125	120-0261
DC Input - 480V ac Output - High Blocking Voltage - Random Turn-On						
50	48Vrms to 530Vrms	SCR	1200	625	HA4850-10	193-6500
50	48Vrms to 530Vrms	SCR	1200	625	HD4850-10	161-3841
90	48Vrms to 530Vrms	SCR	1200	1200	HD4890-10	161-3842
125	48Vrms to 530Vrms	SCR	1200	625	HD48125-10	193-6502
DC Input - 660V ac Output - High Blocking Voltage						
25	48Vrms to 660Vrms	SCR	1200	259	HD6025	193-6506
50	48Vrms to 660Vrms	SCR	1200	1621	HD6050	193-6507
90	48Vrms to 660Vrms	SCR	1200	1200	HD6090	193-6508
125	48Vrms to 660Vrms	SCR	1200	1750	HD60125	193-6504
DC Input - 660V ac Output - High Blocking Voltage						
50	48Vrms to 660Vrms	Thyristor	1200	625	H12WD4850	120-0255
90	48Vrms to 660Vrms	Thyristor	1200	1200	H12WD4890	120-0257
DC Input - 660V ac Output - High Blocking Voltage - Random Turn-On						
50	48Vrms to 660Vrms	SCR	1200	625	H12WD4850-10	193-6496
90	48Vrms to 660Vrms	SCR	1200	1200	H12WD4890-10	193-6497
DC Input - 660V ac Output - High Blocking Voltage with TVS and LED						
25	48Vrms to 660Vrms	SCR	1200	250	H12WD4825PG	193-6495
50	48Vrms to 660Vrms	Thyristor	1200	625	H12WD4850PG	120-0256
125	48Vrms to 660Vrms	SCR	1200	1750	H12WD48125PG	193-6494

FOR SUITABLE HEATSINKS SEE ORDER CODES 175-647 & 175-648

Note: SSRs use semiconductor output devices therefore protectuve fuses should be semiconductor (ultra fast) type.

207020

Load Current	Peak Blocking Voltage	Order Code	Price Each 1+	5+	10+	25+
AC Input - 240V ac Output						
10A	600V	**120-0226**				
25A	600V	**120-0228**				
40A	600V	**120-0230**				
50A	600V	**120-0231**				
110A	600V	NEW **193-6422**				
25A	600V	NEW **193-6424**				
50A	600V	NEW **193-6425**				
10A	600V	NEW **193-6421**				
50A	600V	NEW **193-6427**				
110A	600V	NEW **193-6423**				
AC Input - 480V ac Output			1+	5+	10+	25+
50A	800V	**120-0234**				
75A	800V	**120-0235**				
DC Input - 240V ac Output			1+	5+	10+	25+
10A	500V	**120-0267**				
10A	600V	**120-0237**				
25A	500V	**120-0268**				
25A	600V	**120-0241**				
40A	600V	**120-0243**				
50A	600V	**120-0244**				
75A	600V	**120-0246**				
90A	600V	**120-0247**				
50A	600V	**161-3837**				
90A	600V	NEW **193-6459**				
DC Input - 240V ac Output with TVS and LED						
10A	600V	**120-0238**				
25A	600V	**120-0242**				
50A	600V	**120-0245**				
75A	600V	NEW **193-6458**				
90A	600V	NEW **193-6460**				
125A	600V	NEW **193-6457**				
DC Input - 480V ac Output			1+	5+	10+	25+
25A	800V	**120-0248**				
40A	800V	**120-0249**				
50A	800V	**120-0250**				
75A	800V	**120-0251**				
90A	800V	**120-0253**				
DC Input - 200V ac Output			1+	10+	25+	50+
40A	600V	NEW **193-6461**				
DC Input - 480V ac Output - High Blocking Voltage						
25A	1200V	**120-0262**				
50A	1200V	**120-0263**				
50A	1200V	**161-3839**				
50A	1200V	NEW **193-6498**				
75A	1200V	NEW **193-6501**				
75A	1200V	NEW **193-6503**				
90A	1200V	**120-0265**				
90A	1200V	**161-3840**				
110A	1200V	**120-0260**				
125A	1200V	**120-0261**				
50A	1200V	NEW **193-6500**				

Load Current	Peak Blocking Voltage	Order Code	Price Each 1+	5+	10+	25+
DC Input - 480V ac Output - High Blocking Voltage						
50A	1200V	**161-3841**				
90A	1200V	**161-3842**				
125A	1200V	NEW **193-6502**				
DC Input - 660V ac Output - High Blocking Voltage			1+	5+	10+	25+
25A	1200V	NEW **193-6506**				
50A	1200V	NEW **193-6507**				
90A	1200V	NEW **193-6508**				
125A	1200V	NEW **193-6504**				
50A	1200V	**120-0255**				
90A	1200V	**120-0257**				
50A	1200V	NEW **193-6496**				
90A	1200V	NEW **193-6497**				
DC Input - 660V ac Output - High Blocking Voltage with TVS and LED						
25A	1200V	NEW **193-6495**				
50A	1200V	**120-0256**				
125A	1200V	NEW **193-6494**				
Accessories			1+	5+	10+	25+
Thermal transfer pad		NEW **205-6455**				
			1+	5+	10+	25+
Safety cover (KS100)		**120-0266**				

3, 5 and 7A - 60V dc Output

crydom

DC60 Series

- Industry standard package
- Panel Mount
- AC or DC control
- Normally Closed versions available (-B Suffix)
- 4000V Isolation

H = 22.9, W = 45.7, D = 58.4mm

Input Voltage	Current	Load Current (A)	Load Voltage (V)	Mftrs List No.	Order Code
DC Control - Normally Open					
3.5V DC to 32V DC	2.2mA	3	3V DC to 60V DC	DC60S3	161-3849
3.5V DC to 32V DC	2.2mA	5	3V DC to 60V DC	DC60S5	161-3850
3.5V DC to 32V DC	2.2mA	7	3V DC to 60V DC	DC60S7	161-3851
DC Control - Normally Closed					
3.5V DC to 32V DC	2.2mA	3	3V DC to 60V DC	DC60S3-B	161-3852
3.5V DC to 32V DC	2.2mA	5	3V DC to 60V DC	DC60S5-B	161-3853
3.5V DC to 32V DC	2.2mA	7	3V DC to 60V DC	DC60S7-B	161-3854
AC Control - Normally Open					
90V DC to 280V DC, 90V AC to 280V AC	2mA	3	3V DC to 60V DC	DC60SA3	161-3855
90V DC to 280V DC, 90V AC to 280V AC	2mA	5	3V DC to 60V DC	DC60SA5	161-3857
90V DC to 280V DC, 90V AC to 280V AC	2mA	7	3V DC to 60V DC	DC60SA7	161-3858
AC Control - Normally Closed					
90V DC to 280V DC, 90V AC to 280V AC	2mA	7	3V DC to 60V DC	DC60SA7-B	193-6464

516949

Load Current (A)	Load Voltage (V)	Mftrs. List No.	Order Code	Price Each 1+	10+	25+	50+
DC Control - Normally Open							
3	3V DC to 60V DC	DC60S3	**161-3849**				
5	3V DC to 60V DC	DC60S5	**161-3850**				
7	3V DC to 60V DC	DC60S7	**161-3851**				
DC Control - Normally Closed							
3	3V DC to 60V DC	DC60S3-B	**161-3852**				
5	3V DC to 60V DC	DC60S5-B	**161-3853**				
7	3V DC to 60V DC	DC60S7-B	**161-3854**				
AC Control - Normally Open							
3	3V DC to 60V DC	DC60SA3	**161-3855**				
5	3V DC to 60V DC	DC60SA5	**161-3857**				
7	3V DC to 60V DC	DC60SA7	**161-3858**				
AC Control - Normally Closed							
7	3V DC to 60V DC	DC60SA7-B	NEW **193-6464**				

7A to 100A DC Switching, Surface Mounting

crydom

Series 1-DC - MOSFET Output

- DC input/DC output solid-state relays with power MOSFET output
- Low on-state resistance, fast switching
- Control can be driven from most logic circuits requiring less than 1.6mA at 5Vdc
- DC control signal activates a 50KHz oscillator which is transformer coupled to the output

7A to 100A DC Switching, Surface Mounting - continued

Series 1-DC - MOSFET Output - continued

Input voltage	3.5 - 32V dc3.532V	Isolation	2500V rms2.5kV
Input current (max.)	1.6mA @ 5V dc1.6mA 28mA @ 32V dc28mA	Load current (min.) Turn-on/turn-off (max.)	20mA dc20mA 0.1ms/1.0ms0.1ms1ms

Load Current	Load Voltage (max.)	On-state Resistance (max.)	Surge Current (10ms)	Mftrs. List No.	Order Code
7A	100V dc	0.29Ωohm	15A	D1D07	120-0291
12A	100V dc	0.13Ωohm	28A	D1D12	120-0292
20A	100V dc	0.1Ωohm	42A	D1D20	120-0293
40A	100V dc	0.05Ωohm	106A	D1D40	120-0294
60A	100V dc	0.01Ωohm	180A	D1D60	177-9774
80A	100V dc	0.008Ωohm	220A	D1D80	177-9775
100A	100V dc	0.005Ωohm	330A	D1D100	177-9776
7A	200V dc	0.29Ωohm	22A	D2D07	120-0295
12A	200V dc	0.23Ωohm	27A	D2D12	120-0296
7A	400V dc	0.6Ω	17A	D4D07	161-3847
12A	400V dc	0.35Ω	36A	D4D12	161-3848
7A	500V dc	0.8Ωohm	19A	D5D07	120-0297
10A	500V dc	0.55Ωohm	29A	D5D10	120-0298
	Thermal Transfer Pad			HSP-1	205-6455

Note: SSRs use semiconductor output devices therefore protective fuses should be semiconductor (ultra fast) type

222081

Load Rating	Order Code	Price Each 1+	5+	10+	25+	50+
7A @ 100V dc	**120-0291**					
12A @ 100V dc	**120-0292**					
20A @ 100V dc	**120-0293**					
40A @ 100V dc	**120-0294**					
60A @ 100V dc	**177-9774**					
80A @ 100V dc	**177-9775**					
100A @ 100V dc	**177-9776**					
7A @ 200V dc	**120-0295**					
12A @ 200V dc	**120-0296**					
7A @ 400V dc	**161-3847**					
12A @ 400V dc	**161-3848**					
7A @ 500V dc	**120-0297**					
10A @ 500V dc	**120-0298**					
Thermal Transfer Pad	NEW **205-6455**					

10A to 40A Surface Mounting - Series 1 (-10)

crydom

Phase Control (Instantaneous Switching)

- DC input with non-zero voltage (random) turn-on for operation from a phase controlled signal
- Suitable for light dimming, motor control etc
- Conforms to **EN60950: 1993**.

Input voltage	3.5 - 26V dc	Isolation	4000V rms
Input current (max.)	5mA @ 5V dc, 20mA @ 20V dc	Turn-on/turn-off (max.)	0.02ms/8.3ms
Input pulse (min.)	0.1ms		

Load Current	Load Voltage	Blocking Voltage	Surge Current	Mftrs. List No.	Order Code
240V ac Output					
25A rms	90 - 280V rms	600V pk	250A pk	D2425-10	120-0216
480V ac Output					
40A rms	180 - 530V rms	800V pk	625A pk	D4840-10	120-0217

Note: SSRs use semiconductor output devices therefore protective fuses should be semiconductor (ultra fast) type.

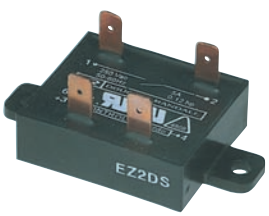
206977

Load Current	Load Voltage	Order Code	Price Each 1+	10+	25+	50+	100+
240V ac Output							
25A rms	90 - 280V rms	**120-0216**					
480V ac Output							
40A rms	180 - 530V rms	**120-0217**					
Thermal Transfer Pad		NEW **205-6455**					

5A/12A/18A Surface Mounting -

crydom

EZ Series



- SPST - NO, AC Output
- Low leakage current
- Quick connect terminals
- Surface mounting with SCR output
- Zero voltage switching
- **CSA**, **VDE** and **CE** Approved, **UL** Recognised

L = 66.8, W = 38.0, H= 24.1 (incl. terminals)

Mftrs. List No.	Output Current	Output Voltage	Input Voltage	Output Function	Internal Snubber	Order Code
EZ240D5	5A	24Vrms to 280Vrms	4V DC to 15V DC	Zero Cross	×	120-0289
EZ240D12	12A	24Vrms to 280Vrms	3V DC to 15V DC	Zero Cross	×	120-0286
EZ240D12S	12A	24Vrms to 280Vrms	4V DC to 15V DC	Zero Cross	✓	193-6465
EZ240D18	18A	24Vrms to 280Vrms	3V DC to 15V DC	Zero Cross	×	120-0287
EZ240D18S	18A	24Vrms to 280Vrms	4V DC to 15V DC	Zero Cross	✓	193-6466
EZE240D18	18A	24Vrms to 280Vrms	15V DC to 32V DC	Zero Cross	×	193-6467
EZE240D18R	18A	24Vrms to 280Vrms	15V DC to 32V DC	Random Turn-On	×	193-6468
EZ480D18	18A	48Vrms to 660Vrms	4V DC to 15V DC	Zero Cross	×	161-3864
EZE480D18	18A	48Vrms to 660Vrms	15V DC to 32V DC	Zero Cross	×	193-6469
EZE480D18R	18A	48Vrms to 660Vrms	15V DC to 32V DC	Random Turn-On	×	193-6470

Note: SSRs use semiconductor output devices therefore protective fuses should be semiconductor (ultra fast) type.

222078

Load Current	Mftrs. List No.	Order Code	Price Each 1+	5+	10+	25+
DC Input - AC Output						
5A	EZ240D5	**120-0289**				
12A	EZ240D12	**120-0286**				
12A	EZ240D12S	NEW **193-6465**				
18A	EZ240D18	**120-0287**				
18A	EZ240D18S	NEW **193-6466**				
18A	EZE240D18	NEW **193-6467**				
18A	EZE240D18R	NEW **193-6468**				
18A	EZ480D18	SMD **161-3864**				
18A	EZE480D18	NEW **193-6469**				
18A	EZE480D18R	NEW **193-6470**				

10A to 75A Surface Mounting -

crydom

CS Series

- Integrated circuit version of the D2400 Series relays
- Inverse parallel thyristor output
- Zero voltage switching, low off-state leakage current
- Conforms to **EN60950:1993**

Load voltage	24 - 280V rms	Blocking voltage	600V pk
Isolation (input/output)	4000V rms	Off-state dv/dt	200V/µs
Off-state current	1.0mA (max.)		

Input Voltage	Load Current	Surge Current	Mftrs. List No.	Order Code
3.5 - 15V dc	10A rms10	120A pk120	CSD2410	120-0218
3.5 - 15V dc	25A rms25	250A pk250	CSD2425	120-0219
3.5 - 15V dc	50A rms50	500A pk500	CSD2450	120-0220

Note: SSRs use semiconductor output devices therefore protective fuses should be semiconductor (ultra fast) type.

207002

Load Current	Input Voltage	Order Code	Price Each 1+	10+	25+
10ACSD2410	3.5 - 15V dc	**120-0218**			
25ACSD2425	3.5 - 15V dc	**120-0219**			
50ACSD2450	3.5 - 15V dc	**120-0220**			
Thermal Transfer Pad		NEW **205-6455**			

SSR - Surface Mounting

crydom

CW24 and CW48 Series

- Low Leakage
- SCR Output
- Integrated removable finger proof cover
- Universal screw type finger proof connectors
- LED status indicator
- EMC Compliant design
- **CSA**, **VDE** and **CE** Approvals, **UL** Recognised

H = 33, W = 45.7, D = 58.4mm

Control Voltage	Current	Load Current	Load Voltage	Surge Current	Mftrs. List No.	Order Code
CW24 Series - DC Control						
3V DC to 32V DC	10mA	25A	24Vrms to 280Vrms	600A	CWD2425	161-3781
3V DC to 32V DC	10mA	50A	24Vrms to 280Vrms	850A	CWD2450	161-3782
3V DC to 32V DC	10mA	90A	24Vrms to 280Vrms	1350A	CWD2490	161-3783
CW24 Series - DC Control - Random Turn-On						
3V DC to 32V DC	10mA	25A	24Vrms to 280Vrms	600A	CWD2425-10	161-3787
3V DC to 32V DC	10mA	50A	24Vrms to 280Vrms	850A	CWD2450-10	161-3788
3V DC to 32V DC	10mA	90A	24Vrms to 280Vrms	1350A	CWD2490-10	161-3791
CW24 Series - DC Control - Internal Overvoltage Protection						
3V DC to 32V DC	10mA	25A	24Vrms to 280Vrms	600A	CWD2425P	161-3795
3V DC to 32V DC	10mA	50A	24Vrms to 280Vrms	850A	CWD2450P	161-3796
3V DC to 32V DC	10mA	90A	24Vrms to 280Vrms	1350A	CWD2490P	161-3797
CW24 Series - AC Control						
90Vrms to 280Vrms	6mA	25A	24Vrms to 280Vrms	600A	CWA2425	161-3801
18V AC to 36V AC	24mA	25A	24Vrms to 280Vrms -	600A	CWA2425E	193-6446
90Vrms to 280Vrms	6mA	50A	24Vrms to 280Vrms	850A	CWA2450	161-3802
18V AC to 36V AC	24mA	50A	24Vrms to 280Vrms -	600A	CWA2450E	193-6447
90Vrms to 280Vrms	6mA	90A	24Vrms to 280Vrms	1350A	CWA2490	161-3803

RoHS ● Compliant ▲ Non-compliant

Control Voltage	Current	Load Current	Load Voltage	Surge Current	Mftrs. List No.	Order Code
CW24 Series - AC Control - Random Turn-On						
90Vrms to 280Vrms	6mA	25A	24Vrms to 280Vrms	600A	CWA2425-10	161-3809
90Vrms to 280Vrms	6mA	50A	24Vrms to 280Vrms	850A	CWA2450-10	161-3810
90Vrms to 280Vrms	6mA	90A	24Vrms to 280Vrms	1350A	CWA2490-10	161-3811
CW24 Series - AC Control - Internal Overvoltage Protection						
90V AC to 280V AC	6mA	25A	24V AC to 280V AC	600A	CWA2425P	161-3815
90Vrms to 280Vrms	6mA	50A	24Vrms to 280Vrms	850A	CWA2450P	161-3816
90Vrms to 280Vrms	6mA	90A	24Vrms to 280Vrms	1350A	CWA2490P	161-3817
CW48 Series - DC Control						
4V DC to 32V DC	10mA	25A	48Vrms to 660Vrms	600A	CWD4825	161-3784
4V DC to 32V DC	10mA	50A	48Vrms to 660Vrms	850A	CWD4850	161-3785
4V DC to 32V DC	10mA	90A	48Vrms to 660Vrms	1350A	CWD4890	161-3786
CW48 Series - DC Control - Internal Overvoltage Protection						
4V DC to 32V DC	10mA	125A	4V DC to 32V DC -	2000A	CWD48125P	193-6449
CW48 Series - DC Control - Random Turn-On						
4V DC to 32V DC	10mA	25A	48Vrms to 660Vrms	600A	CWD4825-10	161-3792
4V DC to 32V DC	10mA	50A	48Vrms to 660Vrms	850A	CWD4850-10	161-3793
4V DC to 32V DC	10mA	90A	48Vrms to 660Vrms	1350A	CWD4890-10	161-3794
CW48 Series - DC Control - Internal Overvoltage Protection						
4V DC to 32V DC	10mA	25A	48Vrms to 660Vrms	600A	CWD4825P	161-3798
4V DC to 32V DC	10mA	50A	48Vrms to 660Vrms	850A	CWD4850P	161-3799
4V DC to 32V DC	10mA	90A	48Vrms to 660Vrms	1350A	CWD4890P	161-3800
CW48 Series - AC Control						
90Vrms to 280Vrms	6mA	25A	48Vrms to 660Vrms	600A	CWA4825	161-3804
18V AC to 36V AC	24mA	25A	48Vrms to 660Vrms -	600A	CWA4825E	193-6448
90Vrms to 280Vrms	6mA	50A	48Vrms to 660Vrms	850A	CWA4850	161-3805
90Vrms to 280Vrms	6mA	90A	48Vrms to 660Vrms	1350A	CWA4890	161-3808
CW48 Series - AC Control - Random Turn-On						
90Vrms to 280Vrms	6mA	25A	48Vrms to 660Vrms	600A	CWA4825-10	161-3812
90Vrms to 280Vrms	6mA	50A	48Vrms to 660Vrms	850A	CWA4850-10	161-3813
90Vrms to 280Vrms	6mA	90A	48Vrms to 660Vrms	1350A	CWA4890-10	161-3814
CW48 Series - AC Control - Internal Overvoltage Protection						
90Vrms to 280Vrms	6mA	25A	48Vrms to 660Vrms	600A	CWA4825P	161-3818
90V AC to 280V AC	6mA	50A	48V AC to 660V AC	850A	CWA4850P	161-3821
90Vrms to 280Vrms	6mA	90A	48Vrms to 660Vrms	1350A	CWA4890P	161-3822

FOR SUITABLE HEATSINKS SEE ORDER CODES 175-647 & 175-648

516552

Mftrs. List No.	Order Code	Price Each 1+	10+	25+	50+
CW24 Series - DC Control					
CWD2425	**161-3781●**				
CWD2450	**161-3782●**				
CWD2490	**161-3783●**				
CW24 Series - DC Control - Random Turn-On					
CWD2425-10	**161-3787●**				
CWD2450-10	**161-3788●**				
CWD2490-10	**161-3791●**				
CW24 Series - DC Control - Internal Overvoltage Protection					
CWD2425P	**161-3795●**				
CWD2450P	**161-3796●**				
CWD2490P	**161-3797●**				
CW24 Series - AC Control					
CWA2425	**161-3801●**				
CWA2450	**161-3802●**				
CWA2490	**161-3803●**				
CWA2425E	**193-6446●**				
CWA2450E	**193-6447●**				
CW24 Series - AC Control - Random Turn-On					
CWA2425-10	**161-3809●**				
CWA2450-10	**161-3810●**				
CWA2490-10	**161-3811●**				
CW24 Series - AC Control - Internal Overvoltage Protection					
CWA2425P	**161-3815●**				
CWA2450P	**161-3816●**				
CWA2490P	**161-3817●**				
CW48 Series - DC Control					
CWD4825	**161-3784●**				
CWD4850	**161-3785●**				
CWD4890	**161-3786●**				
CW48 Series - DC Control - Internal Overvoltage Protection					
CWD48125P	**193-6449●**				
CW48 Series - DC Control - Random Turn-On					
CWD4825-10	**161-3792●**				
CWD4850-10	**161-3793●**				
CWD4890-10	**161-3794●**				
CW48 Series - DC Control - Internal Overvoltage Protection					
CWD4825P	**161-3798●**				
CWD4850P	**161-3799●**				
CWD4890P	**161-3800●**				
CW48 Series - AC Control					
CWA4825E	**193-6448●**				
CWA4825	**161-3804●**				
CWA4850	**161-3805●**				
CWA4890	**161-3808●**				

Mftrs. List No.	Order Code	Price Each 1+	10+	25+	50+
CW48 Series - AC Control - Random Turn-On					
CWA4825-10	**161-3812●**				
CWA4850-10	**161-3813●**				
CWA4890-10	**161-3814●**				
CW48 Series - AC Control - Internal Overvoltage Protection					
CWA4825P	**161-3818●**				
CWA4850P	**161-3821●**				
CWA4890P	**161-3822●**				
Accessories		**1+**	**5+**	**10+**	**25+**
Thermal transfer pad	NEW **205-6455●**				

H16WD Series - 25A to 75A

crydom

NEW

H=58.4, W=45.7, D=23mm

- 1600 Volt Blocking
- DC control
- LED Status Indicator
- This relay is designed for use in applications in which it is exposed to high voltage surge conditions
- Suitable for inductive loads such as transformers, motors, valves and solenoids, as well as all resistive loads

Control Voltage	4V DC to 32V DC
Operating Voltage	48V AC to 660V AC
Switching Mode	Zero Crossing
Operating Temperature	-40°C to 80°C
Terminals	Screw

659095

Load Current	Mftrs. List No.	Order Code	Price Each 1+	5+	10+
25A	H16WD6025G	**209-6351●**			
50A	H16WD6050G	**209-6352●**			
75A	H16WD6075G	**209-6354●**			
90A	H16WD6090G	**209-6355●**			

10 PV Series 25A to 40A

crydom

NEW

- Proportional controller
- Ratings from 25A to 40A @ 240 VAC
- 2-10 V DC analog input range
- For use with resistive loads only

Mftrs. List No.	Current	Output Voltage	Input Voltage	Termination	Order Code
10PCV2425	25A	100Vrms to 240Vrms	2V DC to 10V DC	Screw	193-6419
10PCV2440	40A	100Vrms to 240Vrms	2V DC to 10V DC	Screw	193-6420

640561

Mftrs. List No.	Order Code	Price Each 1+	10+	25+	50+	100+
10PCV2425	**193-6419●**					
10PCV2440	**193-6420●**					

40A to 100A

LVD Series

NEW

crydom

- Low Voltage Disconnect
- Output Ratings from 40A to 100A @ 3 - 75VDC
- Low On-State Resistance FET Output
- Six DC control Ranges Available for 12 & 24VDC Battery Systems
- Compact Encapsulated Panel Mount Package
- Terminal type: Screw

Mftrs. List No.	Control Voltage	Current	Load Current	Load Voltage	Surge Current	Thermal Pad
LVD75A40	11V DC to 11.5V DC	12mA	40A	3V DC to 75V DC	120A	×
LVD75A40H	11V DC to 11.5V DC	12mA	40A	3V DC to 75V DC	120A	✓
LVD75A60	11V DC to 11.5V DC	12mA	60A	3V DC to 75V DC	180A	×
LVD75A60H	11V DC to 11.5V DC	12mA	60A	3V DC to 75V DC	180A	✓
LVD75A80	11V DC to 11.5V DC	12mA	80A	3V DC to 75V DC	220A	×
LVD75A80H	11V DC to 11.5V DC	12mA	80A	3V DC to 75V DC	220A	✓
LVD75A100	11V DC to 11.5V DC	12mA	100A	3V DC to 75V DC	250A	×
LVD75A100H	11V DC to 11.5V DC	12mA	100A	3V DC to 75V DC	250A	✓
LVD75B40	11.5V DC to 12V DC	12mA	40A	3V DC to 75V DC	120A	×
LVD75B40H	11.5V DC to 12V DC	12mA	40A	3V DC to 75V DC	120A	✓
LVD75B60	11.5V DC to 12V DC	12mA	60A	3V DC to 75V DC	180A	×
LVD75B60H	11.5V DC to 12V DC	12mA	60A	3V DC to 75V DC	180A	✓
LVD75B80	11.5V DC to 12V DC	12mA	80A	3V DC to 75V DC	220A	×
LVD75B80H	11.5V DC to 12V DC	12mA	80A	3V DC to 75V DC	220A	✓

40A to 100A - continued

LVD Series - continued

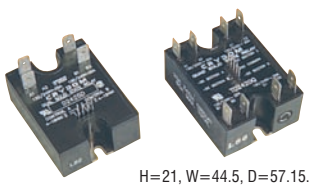
Mftrs. List No.	Control Voltage	Current	Load Current	Load Voltage	Surge Current	Thermal Pad
LVD75B100	11.5V DC to 12V DC	12mA	100A	3V DC to 75V DC	250A	×
LVD75B100H	11.5V DC to 12V DC	12mA	100A	3V DC to 75V DC	250A	✓
LVD75C80	12V DC to 12.5V DC	12mA	80A	3V DC to 75V DC	220A	×
LVD75C80H	12V DC to 12.5V DC	12mA	80A	3V DC to 75V DC	220A	✓
LVD75D40	23V DC to 24V DC	12mA	40A	3V DC to 75V DC	120A	×
LVD75D40H	23V DC to 24V DC	12mA	40A	3V DC to 75V DC	120A	✓
LVD75D60	23V DC to 24V DC	12mA	60A	3V DC to 75V DC	180A	×
LVD75D60H	23V DC to 24V DC	12mA	60A	3V DC to 75V DC	180A	✓
LVD75D80	23V DC to 24V DC	12mA	80A	3V DC to 75V DC	220A	×
LVD75D80H	23V DC to 24V DC	12mA	80A	3V DC to 75V DC	220A	✓
LVD75D100	23V DC to 24V DC	12mA	100A	3V DC to 75V DC	250A	×
LVD75D100H	23V DC to 24V DC	12mA	100A	3V DC to 75V DC	250A	✓
LVD75E80	24V DC to 25V DC	12mA	80A	3V DC to 75V DC	220A	×
LVD75E80H	24V DC to 25V DC	12mA	80A	3V DC to 75V DC	220A	✓

616927

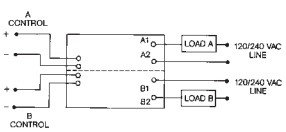
Mftrs. List No.	Order Code	Price Each 1+	10+	25+	50+	100+
LVD75A40	184-5145●					
LVD75A40H	184-5146●					
LVD75A60	184-5148●					
LVD75A60H	184-5149●					
LVD75A80	184-5150●					
LVD75A80H	184-5151●					
LVD75A100	184-5143●					
LVD75A100H	184-5144●					
LVD75B40	184-5154●					
LVD75B40H	184-5155●					
LVD75B60	184-5156●					
LVD75B60H	184-5157●					
LVD75B80	184-5158●					
LVD75B80H	184-5161●					
LVD75B100	184-5152●					
LVD75B100H	184-5153●					
LVD75C80	184-5168●					
LVD75C80H	184-5169●					
LVD75D40	184-5173●					
LVD75D40H	184-5174●					
LVD75D60	184-5175●					
LVD75D60H	184-5176●					
LVD75D80	184-5177●					
LVD75D80H	184-5178●					
LVD75D100	184-5170●					
LVD75D100H	184-5171●					
LVD75E80	184-5186●					
LVD75E80H	184-5187●					

20A to 40A Dual and Quad Output

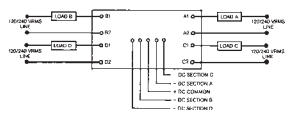
crydom



H=21, W=44.5, D=57.15.
Fixing centres=47.5, 4.5 dia



Dual Output



Quad Output

- DC controlled
- Built-in snubber network

- Zero voltage switching
- **UL** recognised, **CSA** certified

Output terminations are via 6.35mm (¼") push on terminals. Suitable input connectors are Order Codes 143-128 or 146-256 used in conjunction with 977-3789.

Input Voltage	4-15V dc	Must release voltage	1V dc
Input resistance	310Ω	Off-state dv/dt	200V/µs
Load voltage	24-280V ac	Operating temperature	-30°to + 80°
Isolation (input/output)	4V rms		

Load Current (A)	Output Device	Blocking Voltage V_{DRM}	Single Cycle Surge (A)	Overload Current-1sec A rms	Mftrs. List No.	Order Code
25	Thyristor	500	350	25	D2425D	120-0196
40	Thyristor	600	500	40	D2440D	120-0199
20	Triac	500	250	20	TD2420Q	120-0200

Note: SSRs use semiconductor output devices therefore protective fuses should be semiconductor (ultra fast) type.

206953

Description	Order Code	Price Each 1+	5+	10+
Dual ouput 25A	120-0196●			
Dual ouput 40A	120-0199●			
Quad ouput 20A	120-0200●			
Thermal Transfer Pad	NEW 205-6455●			

100A Panel Mount

crydom

MOSFET Output

A range of DC switching Solid State Relays in a robust panel mount package, with screw terminal connections. Load currents of up to 100A dc can be switched at up-to 60V dc, delivering greatly improved reliability over electro-mechanical devices. This series is compatible with control voltages of 3.5-32V dc. A SSR has no moving parts, hence no contacts to degrade and wear out.
Suitable for switching pumps, motors, lamps, solenoids and heating elements, DC Bus control.

H=58.4, W=45.7, D=22.9mm

- Solid State Switch - High Reliability.
- DC Load Switching - up-to 100 amps.
- Robust Panel Mount Construction.
- DC Control.
- Surface Mount Technology.
- MosFET Output

Output Specifications

Types	**D60**	**D100**
Operating voltage	0 - 60V dc	0 - 60V dc
Load current, min.	60A dc	100A dc
Load current, max.	60A dc	100A dc
Max. Surge Current	180A dc	270A dc
Leakage current	0.1mA	0.3mA
Max. Turn-On Time	300µs	300µs
Min. Turn-On Time	1.0µs	1.0µs
Input Specfications		
Control voltage	3.5 - 32VDC	2500V rms
Turn on voltage - Max	3.5V dc	10^9 R
Turn on voltage - Min	1.0V dc	-30 to 80°C
Max. Input current	1.6mA @ 5V dc, 28mA @ 32V dc	

347706

Mftrs. List No.	Order Code	Price Each 1+	5+	10+
D06D60	121-3168●			
D06D100	121-3166●			

25A DC Switching - High Voltage

crydom

800 to 1000V dc rated

A range of DC switching Solid State Relays in a robust panel mount package. Loads of upto 25 Amps may be switched at voltages of 1000V dc, delivering greatly improved reliability over electromechanical devices. 800 V rated models include over voltage protection. Available with control voltages from 12 to 36V dc. Suitable for switching pumps, motor brakes, solenoids and heating elements.

H=47.5, W=45.7, D=22.9mm

- Solid State Switch - High Reliability
- DC Load Switching upto 1000Vdc
- Built in Over-Voltage Protection (800V Model)
- Robust Panel Mount Construction
- IGBT Output
- Surface Mount Technology

Input Specifications

Nominal Voltage	**12V dc**	**24V dc**
Control voltage	8 - 16V dc	20 - 28V dc
Turn on voltage - Max	8V dc	20V dc
Turn on voltage - Min	1V dc	1V dc
Input impedance	780ohm	1500ohm
Input current @ nominal voltage	15 mA	15 mA
Output Specfications	**SSC800 Series**	**SSC1000 Series**
Operating voltage	0 - 800V dc	0 - 1000V dc
Load current, min. (A rms)	20mA	20mA
Load current, max. (A rms)	25A	25A
Surge current	75A	75A
Leakage current	0.3mA	0.3mA
Turn on/off time	1.5/1.5ms	1.5/1.5ms

622888

Mftrs. List No.	Nominal Control voltage	Order Code	Price Each 1+	5+	10+
SSC800-25-12	12V dc	121-3173●			
SSC800-25-24	24V dc	121-3170●			
SSC1000-25-24	24V dc	NEW 193-6549●			

RoHS ● Compliant ▲ Non-compliant

Phase Angle Controller and SSR

MCPC Series

H = 19.8, W = 45.7, D = 58.4mm

The MCPC series of proportional controllers incorporates a complete phase-fired logic system and solid state relay in one small industry standard package. The MCPC uses microprocessor controlled logic, accepts a wide range of input logic power supply, provides an output status indicator, and has 4 modes of analog control input along with an Enable/Disable control.

The MCPC does not require any calibration adjustment, is optically isolated to 4000V rms, includes an internal snubber network and has a load rating of 50A. The series is particularly suited to applications such as tungsten lamp dimming, vibratory feeders, universal motor control and resistive heating element control.

- Phase Angle Controller and SSR in one industry standard package
- Low coltage, current and potentiometer control versions available
- Output status indicator (Load open, no voltage)
- 0 - 100% Control range
- Seperate output enable/disable control
- SCR Based output load switching
- Internal snubber network
- 50 Amp. Load current

Mftrs List No.	Input Voltage	Supply Voltage	Current	Current	Load Voltage
MCPC2450A	0 - 5VDC	8V DC to 32V DC	28mA to 30mA	150mA to 50A	180Vrms to 280Vrms
MCPC2450C	0 - 10VDC	8V DC to 32V DC	28mA to 30mA	150mA to 50A	180Vrms to 280Vrms
MCPC2450D	4 - 20mA	8V DC to 32V DC	28mA to 30mA	150mA to 50A	180Vrms to 280Vrms
MCPC4890D	4 - 20mA	8V DC to 32V DC	28mA to 30mA	150mA to 90A	300Vrms to 530Vrms

517372

Mftrs. List No.	Order Code	Price Each 1+	10+	25+	50+
Soft Start					
MCPC2450A	**161-3884**				
MCPC2450C	**161-3885**				
MCPC2450D	**161-3887**				
MCPC4890D	NEW **193-6522**				

SSR Heat Sinks

HE Series

- Optimized thermal design for use with Crydom panel mount SSRs
- DIN rail and panel mountable heat sinks available
- Thermal Impedance Ratings from 5 up to 0.5 degrees C per watt
- All models Drilled and tapped to accept industry standard panel mount SSRs
- Models available to accept 1, 2 or 3 single or dual phase SSRs, or 1 three phase SSR

Mftrs. List No.	Thermal Resistance (°C/W)	Dimensions (mm) Width	Length	Height
Panel Mount				
HS072	0.7	120.7	149.7	66.8
HS053	0.5	152.4	152.4	88.9
DIN Rail				
HS501DR	5	44.5	80	15.3
HS301DR	3	45.2	81	40.1
HS202DR	2	90.2	81.3	40.1
HS201DR	2	45.2	81	80
HS151DR	1.5	45.2	81.3	95

552260

Mftrs. List No.	Order Code	Price Each 1+	5+	10+	25+	50+
HS072	**177-5196**					
HS053	**177-5197**					
HS501DR	**177-5198**					
HS301DR	**177-5201**					
HS202DR	**177-5203**					
HS201DR	**177-5204**					
HS151DR	**177-5205**					

DIN rail and Panel Mount

CMRD48 Series

- 45A, 55A, 65A models
- ac & dc control versions
- Ready to mount and use
- Low leakage
- Integral heatsink
- Status indicating green LED
- **UL** Recognised, **CSA, VDE** and **CE** approved

H = 76.2, W = 44.5, D = 109.2mm

Mftrs List No.	Input Voltage	Current	Load Current (A)	Load Voltage (V)	Output Device	Blocking Voltage (Vrdm)	Order Code
DC Control - Zero Cross							
CMRD4845	4V DC to 32V DC	14mA	45	48Vrms to 530Vrms	SCR	1200	161-3774
CMRD4855	4V DC to 32V DC	14mA	55	48V AC to 530V AC	SCR	1200	161-3775
CMRD4865	4V DC to 32V DC	14mA	65	48V AC to 530V AC	SCR	1200	161-3776
DC Control - Random Turn-On							
CMRD4845-10	4V DC to 32V DC	14mA	45	48Vrms to 530Vrms	SCR	1200	193-6435
CMRD4865-10	4V DC to 32V DC	14mA	65	48Vrms to 530Vrms	SCR	1200	193-6436
AC Control - Zero Cross							
CMRA4845	90V AC to 140V AC	15mA	45	48V AC to 530V AC	SCR	1200	161-3778
CMRA4855	90V AC to 140V AC	15mA	55	48V AC to 530V AC	SCR	1200	161-3779
CMRA4865	90V AC to 140V AC	15mA	65	48V AC to 530V AC	SCR	1200	161-3780
AC Control - Random Turn-On							
CMRA4845-10	90V AC to 140V AC	15mA	45	48Vrms to 530Vrms	SCR	1200	193-6434

516546

Load Current (A)	Load Voltage (V)	Mftrs. List No.	Order Code	Price Each 1+	10+	25+	50+
DC Control - Zero Cross							
45	48Vrms to 530Vrms	CMRD4845	**161-3774**				
55	48V AC to 530V AC	CMRD4855	**161-3775**				
65	48V AC to 530V AC	CMRD4865	**161-3776**				
DC Control - Random Turn-On							
45	48Vrms to 530Vrms	CMRD4845-10	NEW **193-6435**				
65	48Vrms to 530Vrms	CMRD4865-10	NEW **193-6436**				
AC Control - Zero Cross							
45	48V AC to 530V AC	CMRA4845	**161-3778**				
55	48V AC to 530V AC	CMRA4855	**161-3779**				
65	48V AC to 530V AC	CMRA4865	**161-3780**				
AC Control - Random Turn-On							
45	48Vrms to 530Vrms	CMRA4845-10	NEW **193-6434**				

Filters, Single Phase and Three Phase

- Filter provides simple method of supressing thyristor noise from SSRs
- Designed to enable equipment incorporting SSRs to conform to EMC directive **89/336/EEC**
- Connects between incoming lines of the mains supply, reducing conducted noise by around 30dB.
- Easily added to existing designs
- Single filter is normally sufficient for multiple SSR systems
- Suitable for use with any Crydom single phase and three phase a.c. SSRs

H=28, W=42, D=42
Fixing centres=52
Flying leads L=200

	Single Phase	Three Phase
Operating voltage, max.	275V rms	475V rms
Attenuation (150 to 250 kHz), type.	30BµV	25BµV
Current drain @ Vrms max.	40mA	35mA
Operating temperature	-40°C to 100°C	-40°C to 100°C
Connections	line-neutral	line-line-line

207022

	Mftrs. List No.	Order Code	Price Each 1+	5+	10+	25+	50+
Single phase	1F25	**120-0270**					
Three phase	3F20	**120-0271**					

22.5mm DIN rail Mount

Series CKR240

- 10A, 20A, 30A models
- ac & dc control models
- Ready to mount and use
- Low leakage
- Integral heatsink
- Status indicating LED
- Industry standard 22.5mm narrow profile
- Ideal for motor pump and heating element switching
- **UL** Recognised, **CSA, VDE** approved

H=81.3, W=22.4, D=99

Input Voltage	Current	Load Current	Load Voltage	Output	Blocking Voltage (Vrdm)	1 Cycle Surge (A)	Mftrs List No.
DC Control - Zero Cross							
4V DC to 32V DC	15-20mA	10A	24Vrms to 280Vrms	SCR	600	120	CKRD2410
4V DC to 32V DC	15-20mA	20A	24Vrms to 280Vrms	SCR	600	250	CKRD2420
4V DC to 32V DC	15-20mA	30A	24Vrms to 280Vrms	SCR	600	625	CKRD2430
4V DC to 32V DC	8-12mA	10A	48Vrms to 530Vrms	SCR	1200	120	CKRD4810
4V DC to 32V DC	8-12mA	30A	48Vrms to 530Vrms	SCR	1200	625	CKRD4830
4V DC to 32V DC	9-11mA	10A	0V DC to 60V DC	MOSFET		30	CKM0610
4V DC to 32V DC	9-11mA	20A	0V DC to 60V DC	MOSFET		60	CKM0620
4V DC to 32V DC	9-11mA	30A	0V DC to 60V DC	MOSFET		90	CKM0630
DC Control - Random Turn-On							
4V DC to 32V DC	8-12mA	30A	24Vrms to 280Vrms	SCR	600	1200	CKRD2430-10
4V DC to 32V DC	8-12mA	30A	48Vrms to 530Vrms	SCR	1200	1200	CKRD4830-10

Solid State Relays - Crydom - continued

22.5mm DIN rail Mount - continued

Series CKR240 - continued

Input Voltage	Input Current	Load Current	Load Voltage	Output	Blocking Voltage (Vrdm)	1 Cycle Surge (A)	Mftrs List No.
AC Control - Zero Cross							
90V AC to 280V AC	2-4mA	10A	24Vrms to 280Vrms	SCR	600	120	CKRA2410
90V AC to 280V AC	2-4mA	30A	24Vrms to 280Vrms	SCR	600	625	CKRA2430
90V AC to 280V AC	2-4mA	20A	24Vrms to 280Vrms	SCR	600	250	CKRA2420
90V AC to 280V AC	2-4mA	30A	48Vrms to 530Vrms	SCR	1200	625	CKRA4830
AC Control - Random Turn-On							
90V AC to 280V AC	0-4mA	30A	24Vrms to 280Vrms	SCR	600	1200	CKRA2430-10
90V AC to 280V AC	0-4mA	30A	48Vrms to 530Vrms	SCR	1200	1200	CKRA4830-10

227659

Load Current	Load Voltage	Mftrs. List No.	Order Code	Price Each 1+	10+	25+	50+
DC Control - Zero Cross							
10A	24Vrms to 280Vrms	CKRD2410	**120-0301**				
20A	24Vrms to 280Vrms	CKRD2420	**120-0302**				
30A	24Vrms to 280Vrms	CKRD2430	**120-0303**				
10A	48Vrms to 530Vrms	CKRD4810	NEW **193-6432**				
30A	48Vrms to 530Vrms	CKRD4830	**161-3754**				
10A	0V DC to 60V DC	CKM0610	**161-3769**				
20A	0V DC to 60V DC	CKM0620	**161-3771**				
30A	0V DC to 60V DC	CKM0630	**161-3772**				
DC Control - Random Turn-On							
30A	24Vrms to 280Vrms	CKRD2430-10	NEW **193-6431**				
30A	48Vrms to 530Vrms	CKRD4830-10	NEW **193-6433**				
AC Control - Zero Cross							
10A	24Vrms to 280Vrms	CKRA2410	**120-0299**				
30A	24Vrms to 280Vrms	CKRA2430	**120-0300**				
20A	24Vrms to 280Vrms	CKRA2420	**161-3760**				
30A	48Vrms to 530Vrms	CKRA4830	**161-3767**				
AC Control - Random Turn-On							
30A	24Vrms to 280Vrms	CKRA2430-10	NEW **193-6429**				
30A	48Vrms to 530Vrms	CKRA4830-10	NEW **193-6430**				

Solid State Relays - Finder

2A to 5A PCB Mount SSRs

- PCB mount or via PCB or DIN rail socket
- Silent, high speed switching with long electrical life
- Wash tight: RT III

Series 34 Dimensions: L=28, W=5, H=15mm

Mftrs. List No.	Output Current	Output Voltage	Input Voltage
Slim - DC Ouput Switching			
34.81.7.005.9024	2A	1.5V DC to 24V DCV	5V
34.81.7.012.9024	2A	1.5V DC to 24V DCV	12V
34.81.7.024.9024	2A	1.5V DC to 24V DCV	24V
Slim - AC Ouput Switching			
34.81.7.005.8240	2A	12V AC to 240V ACV	5V
34.81.7.024.8240	2A	12V AC to 240V ACV	24V
34.81.7.012.8240	2A	12V AC to 240V ACV	12V
Standard - DC Ouput Switching			
41.81.7.012.9024	5A	1.5V DC to 24V DCV	12V
41.81.7.024.9024	5A	1.5V DC to 24V DCV	24V
Standard - AC Ouput Switching			
41.81.7.012.8240	3A	12V AC to 240V ACV	12V
41.81.7.024.8240	3A	12V AC to 240V ACV	24V

240635

Mftrs. List No.	Input Voltage	Order Code	Price Each 1+	25+	100+	250+
Slim - DC Ouput Switching						
34.81.7.005.9024	5V	**132-9715**				
34.81.7.012.9024	12V	NEW **194-7883**				
34.81.7.024.9024	24V	**116-9344**				
Slim - AC Ouput Switching						
34.81.7.005.8240	5V	**132-9717**				
34.81.7.012.8240	12V	NEW **194-7882**				
34.81.7.024.8240	24V	**132-9718**				
Standard - DC Ouput Switching						
41.81.7.012.9024	12V	NEW **194-7899**				
41.81.7.024.9024	24V	NEW **194-7900**				
Standard - AC Ouput Switching						
41.81.7.012.8240	12V	NEW **194-7896**				
41.81.7.024.8240	24V	NEW **194-7897**				
Accessories - Sockets						
93.01.7.024	DIN Rail mount	**132-9719**				
93.11	PCB Mount	**132-9720**				

Solid State Relays - Omron

5A to 40A Surface Mounting

G3NA Series

- AC or DC output switching
- AC or DC control available
- Built in varistor protection
- Operation indicator (red LED) enables monitoring
- Protective cover for greater safety
- **UL** Recognised, **CSA** approved

L=58, W=43, H=27
Fixing centres 47.5, dia 4.5

Input Voltage 200 - 240V ac (ac series)200240V
5 - 24V dc (dc series)524V
Isolation 2500V ac2.5kV

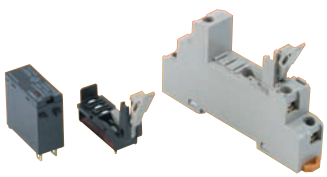
Load Current (A)	Load Voltage	Output Device	Mftrs. List No.	Order Code
AC Input - 240V ac Output				
10	19 - 264V ac	Triac	G3NA-210B 200-240VAC	118-1254
20	19 - 264V ac	Triac	G3NA-220B 200-240VAC	118-1255
DC Input - 240V ac Output				
5	19 - 264V ac	Triac	G3NA-205B 5-24DC	118-1258
10	19 - 264V ac	Triac	G3NA-210B 5-24DC	118-1259
20	19 - 264V ac	Triac	G3NA-220B 5-24DC	118-1260
40	19 - 264V ac	Triac	G3NA-240B 5-24DC	118-1261
DC Input - 200V dc Output				
10	- 220V dc45	Transistor	G3NA-D210B 5-24DC	118-1262

207052

Load Current	Order Code	Price Each 1+	20+	100+
AC Input - 240V ac Output				
10A	**118-1254**			
20A	**118-1255**			
DC Input - 240V ac Output				
5A	**118-1258**			
10A	**118-1259**			
20A	**118-1260**			
40A	**118-1261**			
DC Input - 200V dc Output				
10A	**118-1262**			

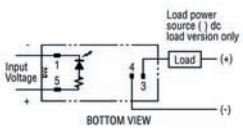
G3R Series

Solid State Relays



G3R SSR - L = 29, W = 13, H = 28 PCB Socket - L = 85.5, W = 16, H = 61 DIN Socket - L = 32, W = 14, H = 41

Compact SSR's for I/O Interface with High Dielectric Strength Requirements



- High speed with optimum input ratings
- Same footprint as G2R Series relays
- Coupler approved by VDE 0884 assuring an I/O dielectric strength of 4 kV
- Incorporates an easy-to-see monitoring indicator
- **UL** Recognised. Approved by **CSA** and **TUV**

G3R Solid State Relays

Control Voltage	4-32V (dc)
Input resistance	1500ohm
Isolation	2.5kV
Load voltage	75-264V ac (118-1363) 75-264V dc (118-1364)

G3R Solid State Relays

Load current	0.1-2A (118-1363) 0.1-2A (118-1364)
Temperature range	-30°C to 80°C

333918

Mftrs. List No.	Order Code	Price Each 1+	20+	100+	250+	500+
DC Input, AC Output - G3R-0A202SZN						
G3R-OA202SZN 5/24DC	**118-1363**					
DC Input, DC Output - G3RD-0DX02SN						
G3R-ODX02SN 5/24DC	**118-1364**					
Sockets						
Surface/DIN rail P2RF-05-E	**134-0954**					
PCB P2R-057P	**137-2576**					

AQH Series - 600mA/1.2A

- Compact DIP type SSR that's ideal for AC load control
- Handles both 100 and 200 V AC loads
- High dielectric strength: 5,000 V AC

NEW

H=9.78, W=6.4, D=3.4mm

RoHS Compliant / Non-compliant

On State Current	Off State Voltage	Switching Mode	Mftrs	Order Code
600mA	600V	Zero Crossing	AQH1213J	209-5714
600mA	600V	Zero Crossing	AQH1213AJ	209-5712
600mA	600V	Random Turn On	AQH1223AJ	209-5715
900mA	600V	Zero Crossing	AQH2213AJ	209-5716
1.2A	600V	Zero Crossing	AQH3213J	209-5717
1.2A	600V	Random Turn On	AQH3223J	209-5719
1.2A	600V	Random Turn On	AQH3223AJ	209-5718

659033

Input Voltage	Order Code	Price Each 1+	25+	50+
AQH1213J	209-5714●			
AQH1213AJ	209-5712●			
AQH1223AJ	209-5715●			
AQH2213AJ	209-5716●			
AQH3213J	209-5717●			
AQH3223J	209-5719●			
AQH3223AJ	209-5718●			

AQG Series - 2A

Panasonic ideas for life

NEW

- Space saving, Vertical size with a maximum thickness of 4.5 mm
- High dielectric strength of 3,000V AC
- Snubber circuit integrated

H=24.5, W=4.5, D=20.5mm

Load Current	Load Voltage	Input Voltage	1 cycle Surge	Mftrs	Order Code
2A	75V AC to 264V AC	4V DC to 6V DC	30A	AQG22105J	209-5710
2A	75V AC to 264V AC	9.6V DC to 14.4V DC	30A	AQG22112J	209-5711

659030

Input Voltage	Order Code	Price Each 1+	25+	50+
4V DC to 6V DC	209-5710●			
9.6V DC to 14.4V DC	209-5711●			

AQA Series - 40A

Panasonic ideas for life

NEW

- Compact Size
- With terminal cover for safety
- Mounting pitch 47.5 mm
- Built in varistor for excellent surge absorption
- With LED indication for operation status verification

H=58, W=40, D=25.5mm

Load Current	Load Voltage	Input Voltage	Operating Temperature
40A	75V to 250V AC	4V DC to 32V DC	-20°C to 80°C

659036

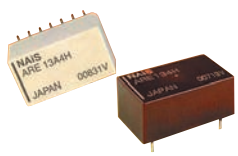
Switching Mode	Mftrs. List No.	Order Code	Price Each 1+	25+	50+
Random Turn On	AQA621VL	209-5720●			
Zero Crossing	AQA611VL	209-5721●			

High Frequency Relays - Panasonic

Panasonic

High Sensitivity Microwave

2.6GHz 75Ω



This range of high frequency relay's has single side stable type contacts. The relay turns on when the coil is energised and turns off when de-energised.

- Low insertion loss
- High isolation
- Low VSWR performance
- SMD and Through Hole Devices available

H = 8.9(THD) - 9.6(SMD), W = 20.2, D = 11.2 mm

Contact arrangment	1 Form C
Contact rating, Resistive	10mA, 24V dc
Contact carrying power (max)	10W @ 2.6GHz
Insertion loss	max. to 2.6GHz
VSWR	1.5 max.
Isolation	60dB/900MHz, 30dB/2.6dB max.
Contact resistance	100mohm
Insulation resistance	100M @ 500V dc
Life, mechanical (operations min)	1000000

622734

COIL Volts	Ω	Mftrs. List No.	Order Code	Price Each 1+	10+	25+	50+
RE Type - Single Sided Stable							
4.5V dc	101	ARE134H	377-2998●				
12V dc	720	ARE1312	377-3000●				
4.5V dc	101	ARE13A4HZ	SMD 377-3024●				
12V dc	720	ARE13A12Z	SMD 377-3036●				

High Frequency Relays - Teledyne

DPDT Sensitive Coil - TO5

TELEDYNE RELAYS A Teledyne Technologies Company

732 Series

The TO-5 style relay has become one of the industry standards for switching from low level to 1 ampere. This sensitive coil version has gold plated precious metal alloy contacts that ensure reliable switching from low level to full rated load.
By virtue of the low intercontact capacitance and circuit losses these relays are ideal for switching frequency ranges well into the UHF spectrum. Applications are to be found wherever transmit receive switching is required and space is at a premium.

- High reliability
- Small size
- Low coil power consumption
- Low inter-contact capacitance
- High resistance to shock and vibration
- All welded construction

Contact arrangement	DPDT / 2 Form C	Insulation resistance	
Contact rating	1A @ 28V dc	Operate/Release time	6.0 / 3ms
Contact resistance	150mohm	Temperature range	-55°C to +85°C
Contact life	10,000,000 cycles	Interconnect capacitance	0.4pF

Order Code	Mftrs. List No.	Order Code	Mftrs. List No.
990-6851	732-5	990-6860	732-12

414572

COIL Volts	Ω	Order Code	Price Each 1+	10+	25+
5V	100	990-6851●			
12V	850	990-6860●			

DPDT Standard

TELEDYNE RELAYS A Teledyne Technologies Company

172 Series

The 172 relay is an ultra miniature, hermetically sealed, armature relay for commercial applications. Its low profile height of 7.11mm and 2.54mm grid spaced terminals, makes it an ideal choice where extreme packaging density and/or close PCB spacing are required. The relay operates well into the UHF spectrum making it ideal for applications including telecommunications, test equipment, mobile communications and attenuators.

- High reliability
- Compact size
- Low coil power consumption
- High resistance to shock and vibration
- All welded construction

Contact arrangement	DPDT / 2 Form C	Insulation resistance	
Contact rating	1A @ 28V dc	Operate/Release time	6 / 3ms
Contact resistance	150mohm	Temperature range	-55°C to +85°C
Contact life	5,000,000 cycles	Interconnect capacitance	0.4pF

Order Code	Mftrs. List No.	Order Code	Mftrs. List No.
990-6894	172-5	990-6908	172-12

414582

COIL Volts	Ω	Order Code	Price Each 1+	10+	25+
5V	64	990-6894●			
12V	400	990-6908●			

DPDT Surface Mount

TELEDYNE RELAYS A Teledyne Technologies Company

2.5 GHz - GRF172

The GRF172 surface-mount relay is an ultra-miniature, hermetically sealed, armature relay for 2.5 GHz RF applications. Its low profile height (8.38mm) and small (2.54mm) grid spaced terminals make it an ideal choice where extreme packaging density and/or close PC board spacing are required.
The GRF172 features a unique ground shield that isolates and shields each lead to ensure excellent contact-to-contact and pole-to-pole isolation. This ground shield produces improved high-frequency performance as well as parametric repeatability.

- All welded construction
- High magnetic efficiency and mechanical rigidity
- High resistance to mechanical shock and vibration
- High isolation between control and signal paths

Contact arrangement	DPDT / 2 Form C	Insulation resistance	
Contact rating	1A @ 28V dc	Operate time	6.0ms
Contact resistance	150mohm	Temperature range	-55°C to +85°C
Coil consumption	360mW	Interconnect capacitance	0.4pF

High Frequency Relays - Teledyne - continued

DPDT Surface Mount - continued

2.5 GHz - GRF172 - continued

Order Code	Mftrs. List No.
990-6800	GRF172-12

414550

COIL Volts	Ω	Order Code	Price Each 1+	10+	25+
12V	400	SMD 990-6800●			

DPDT High Repeatability TO-5

TELEDYNE RELAYS
A Teledyne Technologies Company

3 GHz - RF300 Series

Designed to provide improved RF insertion loss repeatability over the entire frequency range by balancing the aggregate insertion loss elements of the relays design. Suitable for use in all high performance applications in which high speed signals must be transferred. These relays feature broad bandwidth, metal enclosure for EMI shielding, ground pin option to aid in case grounding. Unique construction features and manufacturing techniques provide excellent resistance to envioronmental exrtemes and high reliability.

- High repeatability
- Broad bandwidth
- EMI shielded
- High resistance to ESD
- High isolation between control and signal paths

Contact arrangement	DPDT / 2 Form C	Insulation resistance	
Contact rating	1A @ 28V dc	Operate time	4.0ms
Contact resistance	150mohm	Temperature range	-55°C to +85°C
Coil consumption	450mW	Interconnect capacitance	0.4pF

Order Code	Mftrs. List No.
990-6789	RF300-5

414548

COIL Volts	Ω	Order Code	Price Each 1+	10+	25+
5V	50	990-6789●			

DPDT Standard - TO5

TELEDYNE RELAYS
A Teledyne Technologies Company

712 Series

DPDT Standard TO-5 style relay with gold plated precious metal alloy contacts to ensure reliable switching from low level to full rated load. Designed for high-density PCB mounting they are among the most versitile ultraminature relays available because of their compact size and low coil power dissipation.

- High reliability
- Compact size
- Low coil power consumption
- High resistance to shock and vibration
- All welded construction

Contact arrangement	DPDT / 2 Form C	Insulation resistance	
Contact rating	1A @ 28V dc	Operate/Release time	4 / 3ms
Contact resistance	150mohm	Temperature range	-55°C to +85°C
Contact life	10,000,000 cycles	Interconnect capacitance	0.4pF

Order Code	Mftrs. List No.	Order Code	Mftrs. List No.
990-6878	712-5	990-6886	712-12

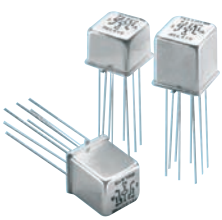
414574

COIL Volts	Ω	Order Code	Price Each 1+	10+	25+
5V	50	990-6878●			
12V	390	990-6886●			

DPDT High Repeatability

TELEDYNE RELAYS
A Teledyne Technologies Company

0.3 MHz to 4 GHz - RF100 Series



Designed to provide improved RF insertion loss repeatability over the frequency range by balancing the aggregate insertion loss elements of the relays' design. Suitable for use in all high performance applications in which high speed signals must be transferred. The relays feature broad bandwidth, metal enclosure for EMI shielding to ensure that control and signal paths are highly resistant to ESD. Applications include attenuators and other precision RF circuits

- High repeatability
- Broad bandwidth
- EMI shielded
- High resistance to ESD
- High isolation between control and signal paths

Contact arrangement	DPDT	Insulation resistance	
Contact rating	10 to 50μA / 10 to 50mV	Operate time	4.0ms
Contact resistance	100mohm	Temperature range	-55°C to +85°C
Coil consumption	500mW	Interconnect capacitance	0.4pF

Order Code	Mftrs. List No.	Order Code	Mftrs. List No.
990-6762	RF100-5	990-6770	RF100-12

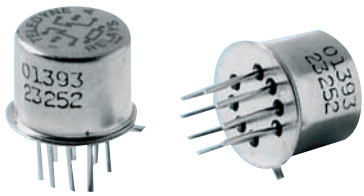
414544

COIL Volts	Ω	Order Code	Price Each 1+	10+	25+
5V	50	990-6762●			
12V	390	990-6770●			

DPDT - TO5

TELEDYNE RELAYS
A Teledyne Technologies Company

ER412 Series



The TO-5 style relay has become one of the industry standards for switching from low level to 1 ampere. Gold plated precious metal alloy contacts assure reliable switching from low level to full rated load. These relays are ideal for switching high frequency ac or high speed digital signals with applications wherever transmit receive switching is required.

- High reliability
- Low inter-contact capacitance
- High magnetic efficiency
- High resistance to shock and vibration
- All welded construction

Contact arrangement	DPDT / 2 Form C	Insulation resistance	
Contact rating	1A @ 28V dc	Operate/Release time	2.0 / 1.5ms
Contact resistance	100mohm	Temperature range	-65°C to +125°C
Contact life	10,000,000 cycles	Interconnect capacitance	0.4pF

Order Code	Mftrs. List No.	Order Code	Mftrs. List No.
990-6835	ER412-5	990-6843	ER412-12A/G

414569

COIL Volts	Ω	Order Code	Price Each 1+	10+	25+
5V	50	990-6835●			
12V	390	990-6843●			

DPDT Low Profile

TELEDYNE RELAYS
A Teledyne Technologies Company

ER114 Series

Low inter-contact capacitance and contact circuit losses allows for reliable signal transfer well into the UHF spectrum. The 114 series relays are low profile (6.9mm), ultra-miniature, hermetically sealed, armature relay with 2.54mm grid spaced terminals. Gold plated precious metal alloy contacts assure reliable switching from low level to full rated load. These relays are ideal for switching high frequency ac or high speed digital signals.

- High reliability
- Low inter-contact capacitance
- High resistance to shock and vibration
- All welded construction

Contact arrangement	DPDT / 2 Form C	Insulation resistance	
Contact rating	1A @ 28V dc	Operate/Release time	2.0 / 1.5ms
Contact resistance	100mohm	Temperature range	-65°C to +125°C
Contact life	10,000,000 cycles	Interconnect capacitance	0.4pF

Order Code	Mftrs. List No.
990-6827	ER114-12

414555

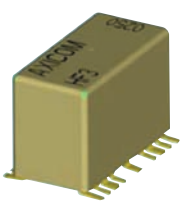
COIL Volts	Ω	Order Code	Price Each 1+	10+	25+
12V	390	990-6827●			

High Frequency Relays - Tyco Electronics

1A Single Pole

Tyco Electronics

HF3 Series, 50Ω



- DC to 3 GHz frequency range
- 2A maximum switching current
- Polarized coil
- Low power consumption ≤140 mW
- Immersion cleanable

H=10, W=14.6, D=7.2mm

Contact arrangement	SPDT - 1 Form C	Switching capacity	100mA
Frequency range	DC to 3GHz	Contact Material	Gold
Impedance	50ohm	Coil consumption	140mW
VSWR @ 3 GHz	1.2	Operate/Release	3 / 3ms typical
Continuous contact current	2A @ max. ambient temperature	Temperature range	-55 to 85°C

Order Code	Mftrs. List No.	Order Code	Mftrs. List No.	Order Code	Mftrs. List No.
991-3580	HF3-52	185-5480	HF3 01	185-5489	HF3 56S
185-5483	HF6 53	185-5476	HF3 02	185-5484	HF3 57S
991-3599	HF3-56	185-5481	HF3 03	185-5488	HF3 92S
185-5477	HF3 93	185-5482	HF3 06	185-5486	HF3 93S
185-5478	HF3 95	185-5485	HF3 53S		

414018

COIL Volts	Ω	Order Code	Price Each 1+	20+	50+	100+
4.5V dc	145ohm	SMD 991-3580				
5V dc	178ohm	NEW 185-5483				
12V dc	1.028kohm	SMD 991-3599				
Bistable - 2 Coil - 50Ω Version						
5V dc	178ohm	NEW 185-5477				
9V dc	574ohm	NEW 185-5478				
Monostable - 1 Coil - 75Ω Version						
3V dc	64ohm	NEW 185-5480				
4.5V dc	145ohm	NEW 185-5476				
5V dc	178ohm	NEW 185-5481				
12V dc	1.028kohm	NEW 185-5482				
Monostable - 1 Coil - 50Ω Version - High Performance						
5V dc	178ohm	NEW 185-5485				
12V dc	1.028kohm	NEW 185-5489				
24V dc	4.114kohm	NEW 185-5484				
Bistable - 2 Coil - 50Ω Version - High Performance						
4.5V dc	145ohm	NEW 185-5488				
5V dc	178ohm	NEW 185-5486				

Shielded High Frequency Relay

Tyco Electronics

HF6 Series

- Y-Design
- Frequency range from DC to 6 GHz
- Impedance 50Ω
- 50 W hot switching
- 50 W RF power carry capacity
- Small dimensions
- Immersion cleanacle
- Low power consumption of ≤140 mW

H = 10, W = 16, D = 7.6mm

Contact arrangement	SPDT	Contact Resistance, max.	100mohm
Contact Rating, current	2A	Coil Resistance	140mW
Contact Rating, voltage	250VAC / 220VDC	Max. Continuous RF-power	50 W
Capacity Switching, max.	60W / 62.5VA	Temperature Range	-55 to +85°C

Order Code	Part Number	Mftrs. List No.	185-5479	1-1462052-0	HF6 73
162-9103	1462052-3	HF6 53	162-9108	2-1462052-0	HF6 96
162-9105	1462052-6	HF6 56			

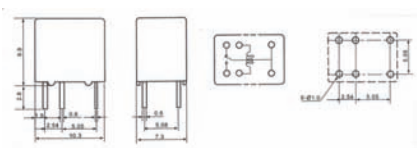
519570

Coil Volts	Ω	Order Code	Price Each 1+	20+	50+	100+	250+
Monostable - 1 Coil							
5V	178ohm	SMD 162-9103					
12V	1.028kohm	SMD 162-9105					
5V	357ohm	185-5479 NEW					
12V	1.028kohm	SMD 162-9108					

Signal Relays - SPC MultiComp

Subminiature - HRA Series

multicomp



- SPCO Series of relays
- Small size & light weight
- Plastic sealed (washable)
- DIL pitch terminal

Contact arrangement	SPCO	Life Elect.	100,000 operations
Contact rating	1A @ 24Vdc/120Vac	Life Mech.	10,000,000 Operations
Voltage Switching Max.	30Vdc/120Vac	Resistance Insulation	
Contact material	Gold / Silver	Strength Dielectric	500VAC 1min between open contacts
Current Switching Max.	2.0A		1,000V ac 1min, contacts to coil
Power Switchins Max.	120VA/30W	Temperature range	-25°C to 70°C
Resistance Contact	50mohm	Operate/Release	6ms Max./4ms Max

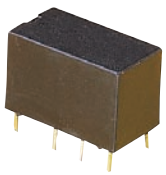
Order Code	Coil Voltage (V dc)	Coil Resistance (Ω's)	Coil Operate Voltage	Coil Release Voltage	Coil Power Consumption (mW)
948-0137	5	55	3.5V dc	0.25V dc	450
948-0145	12	320	8.4V dc	0.60V dc	450
948-0153	24	1.28	16.8V dc	1.20V dc	450
948-0161	5	75	3.5V dc	0.25V dc	330
948-0170	12	440	8.4V dc	0.60V dc	330
948-0188	24	1.56	16.8V dc	1.20V dc	380

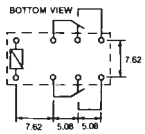
244120

COIL Volts	Order Code	Price Each 1+	+	+	+
SPCO - 1 Form C					
5V dc	948-0137				
12V dc	948-0145				
24V dc	948-0153				
SPCO - 1 Form C High Sensitivity					
5V dc	948-0161				
12V dc	948-0170				
24V dc	948-0188				

Subminiature - High Sensitivity

multicomp





L=21.2,W=10.8,H=12

- Low profile
- Fully sealed
- Sensitive coil - 200mW
- **UL** Recognised

Contact arrangement	DPCO	Coil consumption	200mW sensitive
Contact rating	1A @ 24V dc/120V ac		6ms4ms
Contact material	Gold clad Silver	Operate/Release	/-40°C85°C
Dielectric strength	1000V ac (coil-contact)V/m	Temperature range	to +

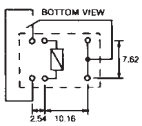
207035

COIL Volts	Ω	Order Code	Price Each 1+	25+	50+	100+	250+	500+
5V dc	125	948-0196						
9V dc	405	948-0200						
12V dc	720	948-0218						
24V dc	2.88	948-0226						

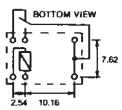
Subminiature High Sensitivity - MCS1H Series

multicomp

D=10.5, W=15.5, H=11.8mm



MCS1HS



MCS1KHS

- Low profile
- High coil sensitivity
- Fully sealed
- **UL** Recognised

Contact arrangement	SPCO	Coil consumption	200mW
Contact rating	1A @ 24V dc/120V ac1A	Release	5ms
Contact material	AgAu	Temperature range	-25°C to +55°C
Dielectric strength	1000V ac (coil-contact)		-25°C55°C

207036/405690

COIL Volts	Ω	Order Code	Price Each 1+	25+	50+	100+	250+	500+
SPCO - MCS1H-S Series								
5V dc	120	948-0269						
12V dc	700	948-0277						
24V dc	2.8k	948-0285						
SPCO - MCS1KH-S Series								
5V dc	125	948-0293						
12V dc	720	948-0307						
24V dc	2.88k	948-0315						

Signal Relays - NEC

Subminiature Telecom - EA2/EB2 Series

NEC

PCB and Surface Mount

- 1500V FCC surge
- High sensitivity (140mW)
- Fully sealed
- **UL** Recognised & **CSA** approved

Contact arrangement	DPCO	Contact material	Silver Alloy, Gold Overlay
Contact rating:		Coil consumption	140mW
Max. current	2A	Operate/Release	2ms/1ms
Max. voltage	220V dc/250V ac	Coil operating range	75 - 150%
Max. power	30W/62.5VA	Temperature range	-40°C to +85°C

Signal Relays - NEC - continued

Subminiature Telecom - EA2/EB2 Series - continued

PCB and Surface Mount - continued

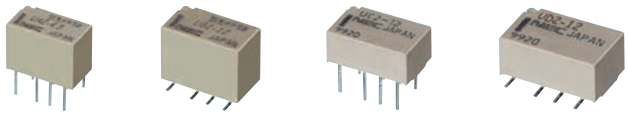
207064

COIL Volts	Ω	Order Code	Price Each 1+	50+	100+	250+	500+
DPCO - EA2 Series							
5V dc	178	**109-4030●**					
12V dc	1.028	**109-4031●**					
24V dc	2.88	**109-4032●**					
DPCO - EB2 Series							
5V dc	178	SMD **109-4033●**					
12V dc	1.028	SMD **109-4034●**					
24V dc	2.88	SMD **109-4035●**					

Subminiature - Signal

NEC

DPCO - 1A, 220V dc/250V ac

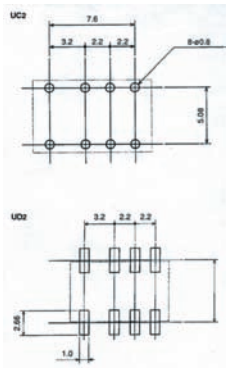


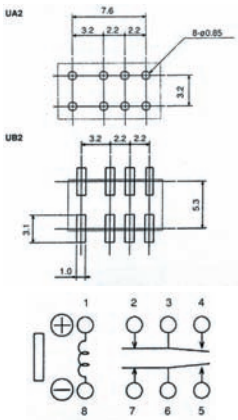
UA2 Type: H = 8.0mm, W = 10.6mm, D= 5.7mm

UB2 Type: H = 8.8mm, W = 10.6mm, D = 5.7mm

UC2 Type: H = 5.5mm, W = 10.6mm, D = 6.5mm

UD2 Type: H = 5.5mm, W = 10.6mm, D= 6.5mm





- Compact and light weight
- 2 Form C contact arrangement
- Low power consumption (140mW)
- **UL** recognised, **CSA** certified
- Super high density mounting
- Meets Bell-Core standard requirements
- Meets **IEC950/UL1950/EN60950** insulation distance

Contact arrangement	DPCO	Time, operate/release	4ms/4ms (without diode)
Current, switching (max)	1A	Resistance, contact	100mΩ max.
Voltage, switching (max)	220Vdc/250Vac	Operating range, temp.	-40°C to 85°C
Power, switching (max)	30W / 37.5VA	Insulation Resistance	
Material, contacts	Silver alloy, gold alloy overlay		

Order Code	Mftrs. List No.	Coil Voltage (V dc)	Coil Resistance (Ω's)	Order Code	Mftrs. List No.	Coil Voltage (V dc)	Coil Resistance (Ω's)
109-4048	UA2-5NU	5	178	109-4055	UC2-5NU	5	178
109-4049	UA2-12NU	12	1.028	109-4056	UC2-12NU	12	1.028
109-4050	UA2-24NU	24	2.504	109-4058	UD2-5NU	5	178
109-4052	UB2-5NU	5	178	109-4059	UD2-12NU	12	1.028
109-4053	UB2-12NU	12	1.028				

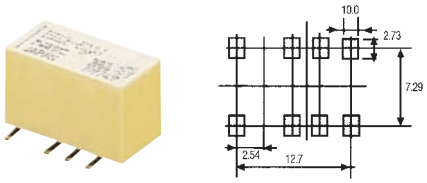
246090

Order Code	Price Each 1+	50+	100+	250+	500+
DPCO - Through Hole UA2 type					
109-4048●					
109-4049●					
109-4050●					
DPCO - Surface Mount UB2 type					
SMD **109-4052●**					
SMD **109-4053●**					
DPCO - Through Hole UC2 type					
109-4055●					
109-4056●					
DPCO - Surface Mount UD2 type					
SMD **109-4058●**					
SMD **109-4059●**					

Subminiature Telecom - EE2

NEC

Surface Mount



- 2500V surge
- Sensitive (140mW) coil
- Fully sealed
- **UL** Recognised and **CSA** approved

Contact arrangement	DPCO	Contact material	Silver Alloy, Gold Overlay
Contact rating:		Coil consumption	140mW (200mW 24Vdc)
Max. current	2A	Operate/Release	2ms/1ms
Max. voltage	220V dc/250V ac	Coil operating range	75 - 150%
Max. power	30W/125VA	Temperature range	-40°C to +85°C

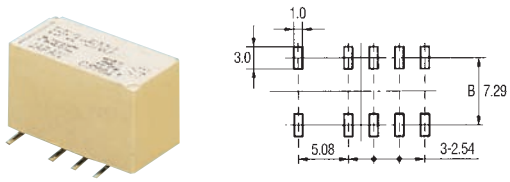
207061

COIL Volts	Ω	Order Code	Price Each 1+	50+	100+	250+	500+
DPCO - EE2 Series							
5V dc	178	SMD **109-4036●**					
12V dc	1.028	SMD **109-4037●**					
24V dc	2.88	SMD **109-4039●**					

High Sensitivity Telecom - EF2 Series

NEC

Surface Mount



- 2500V surge
- High Sensitivity (50mW) coil
- Fully sealed
- **UL** Recognised and **CSA** approved

Contact arrangement	DPCO	Contact material	Silver Alloy, Gold Overlay
Contact rating:		Coil consumption	50mW (60mW 12Vdc, 70mW 24Vdc)
Max. current	1A	Operate/Release	3ms/2ms
Max. voltage	220V dc/250V ac	Coil operating range	80 - 150%
Max. power	30W/62.5VA	Temperature range	-40°C to +70°C

207067

COIL Volts	Ω	Order Code	Price Each 1+	50+	100+	250+	500+
DPCO - EF2 Series							
5V dc	500	SMD **109-4041●**					
24V dc	8.229	SMD **109-4043●**					

Signal Relays - Omron

1A Signal Relay

OMRON

G6J-Y Series

L=10.6, H=9, W=5.7mm

- Ultra-compact and Slim
- Single-winding latching models to save energy
- Conforms to FCC Part 68
- Dielectric strength of 1500 VAC and an impulse with-stand voltage of 2,500 V for 2 x 10 µs

Contact arrangement	DPDT
Contact Rating	300mA @ 250VAC 1A @ 28 VDC
Dielectric Strength	1500 VAC @ 50/60Hz
Contact Material	Ag
Operate/Release	1.6ms/1ms
Coil Consumption	100mW

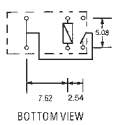
Mftrs. List No.	Order Code
G6J-2FL-Y 12DC	179-8618

608982

Coil Volts.	Ω	Order Code	Price Each 1+	10+	25+	50+	100+
12	976.8	**179-8618●**					

Subminiature - High Sensitivity - G5V-1 Series

OMRON



L=12.3, W=7.3, H=9.9

- SPCO contacts
- High sensitivity 150mW coil
- Wide switching capacity of 1mA to 1A
- Fully sealed
- **UL** Recognised and **CSA** approved
- Conforms to **FCC Part 68**

Contact arrangement	SPCO	Coil consumption (nom.)	150mW
Contact rating	1A @ 24V dc, 500mA @ 125V ac	Operate/Release (max.)	5ms/5ms
		Coil operating range	80% - 200% (@ 55°C)%
Contact material	Silver, Gold Clad5ms	Temperature range	-40°C to +70°C

RoHS ● Compliant ▲ Non-compliant

206983

COIL Volts	Ω	Order Code	Price Each 1+	+	+	+	+
SPCO - G5V-1 Series							
3V dc	60	NEW **206-5727**					
5V dc	167	**994-9577**					
6V dc	240	NEW **206-5728**					
9V dc	540	NEW **206-5729**					
12V dc	960	**994-9585**					
24V dc	3.84kohm	**994-9593**					

Miniature Signal - G6E Series

OMRON

- SPCO contacts
- **UL** Recognised and **CSA** approved
- Fully sealed

Contact arrangement	SPDT/SPDT	Coil consumption:	200mW (400mW for 48V dc)
Contact rating	2A @ 220V, 400mA @ 250V	Operate/Release:	5ms/5ms
Contact material	Ag (Au-Alloy)	Temperature range	-40°C to +70°C

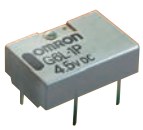
207140

COIL Volts	Ω	Order Code	Price Each 1+	20+	100+	250+	500+
SPCO Single Coil - G6E-134P Series							
5V	125	NEW **207-6246**					
5V	125	**994-9160**					
9V	405	NEW **207-6247**					
12V	720	NEW **207-6243**					
12V	720	**994-9178**					
24V	2.88kohm	**994-9186**					
48V	5.76kohm	NEW **207-6245**					
SPCO Single Coil Low Sensitivity - G6E-134PL Series							
5V	125	NEW **207-6242**					
12V	720	NEW **207-6241**					
24V	2.88kohm	NEW **207-6239**					
SPCO Single Coil Latching - G6EK-134P Series							
5V	125	**118-1045**					
5V	125	NEW **207-6249**					
12V	720	NEW **207-6248**					
SPCO Double Coil Latching - G6EU-134P Series							
5V	125	NEW **207-6253**					
12V	720	NEW **207-6250**					
24V	2.88kohm	NEW **207-6252**					

SPST 1A

G6L Series

OMRON



THT - H = 3.8, W = 10.6, D = 7mm
SMD - H = 4.2, W = 10.6, D = 7mm

- High density mounting
- Dielectric strength of 1000V ac between coil and contacts
- High dielectric strength of 750V ac between contacts of the same polarity
- Conforms to FCC Part 68
- Approved to **CSA C22.2 No. 60950** and **UL** Recognised
- Use of lead completely eliminated

Contact arrangment	Single-side Stable
Mechanical life	5,000,000 Operations
Electrical life	100,000 operations min. (rated load)
Coil power	180mW
Contact resistance (initial)	100mohm max.
Rated carry current	1A
Max. switched voltage	125V, 60V
Max. switched current	1A
Rated load	0.3A @ 125V ac, 1A @ 24V dc
Operating temperature	-40 to 70°C

Order Code	Mftrs. List No.	Rated Current
444-6264	G6L-1P 3DC	60mA
444-6288	G6L-1P 5DC	36mA
444-6331	G6L-1F 5DC	36mA
444-6355	G6L-1F 24DC	9.6mA

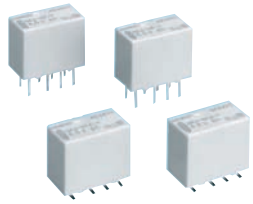
311839

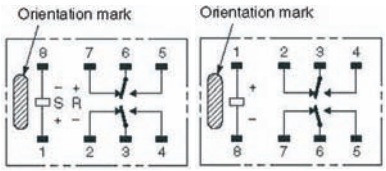
COIL Volts	Ω	Order Code	Price Each 1+	20+	50+	100+	250+
Single-sided stable							
3V	50	**444-6264**					
5V	139	**444-6288**					
5V	139	SMD **444-6331**					
24V	2.504	SMD **444-6355**					

DPDT 1A

G6J Series

OMRON





THT - H = 9, W = 10.6, D = 5.7mm
SMD - H = 10, W = 10.6, D = 5.7mm

- Ultra-compact and slim
- Dielectric strength of 1500V ac
- Conforms to North American Telcordia specifications (formerly Bellcore)
- Conforms to FCC Part 68
- Single-winding latching models to save energy
- **CSA** Approve and **UL** Recognised

Contact arrangment	Single-side Stable or Single-winding Latching
Dielectric strength - Coil to contact	1500VAC
Impulse withstand voltage	2500V for 2 x 10µs
Coil power - Stable	140mW (230mW 24V version)
Coil power - Latching	100 (100mW 24V version)
Contact resistance (initial)	100mohm max.
Rated carry current	1A
Max. switched voltage	110VDC, 125VAC
Max. switched current	1A
Rated load	300mA @ , 1A @ 30 V dc
Operating temperature	-40 to 85°C

Order Code	Mftrs. List No.	Order Code	Mftrs. List No.	Order Code	Mftrs. List No.
989-9529	G6J-2FSY 5DC	989-9570	G6J-2PY 5DC	989-9545	G6J-2PY 24DC
989-9499	G6J-2FSY 24DC	989-9537	G6J-2PY 12DC	989-9626	G6JU-2FSY 5DC
989-9553	G6J-2PY 3DC				

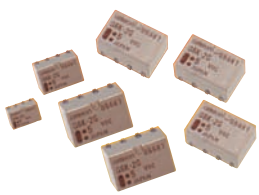
414420

COIL Volts	Ω	Order Code	Price Each 1+	20+	50+	100+	250+
Single-sided stable							
5V	173.1	SMD **989-9529**					
24V	2.601	SMD **989-9499**					
3V	62.5	**989-9553**					
5V	173.1	**989-9570**					
12V	976.8	**989-9537**					
24V	2.601	**989-9545**					
Single-winding latching							
5V	245.5	SMD **989-9626**					

DPDT 1A

G6K Series

OMRON



- Low profile and weight for improved mounting efficiency
- Low power consumption
- Dielectric strength of 1500V ac
- Conforms to FCC Part 68
- Approved to **CSA C22.2 No. 950** and **UL** Recognised

THT - H = 5, W = 10, D = 6.5mm
SMD - H = 5.2, W = 10, D = 6.5mm

Contact arrangment	DPDT	Rated carry current	1A
Mechanical life	50,000,000 Operations	Max. switched voltage	125V, 60V
Electrical life	100,000 operations min. (rated load)	Max. switched current	1A
		Rated load	0.3A @ 125V ac, 1A @ 30V dc
Coil power	100mW		
Contact resistance (initial)	100mohm max.	Operating temperature	-40 to 70°C

Order Code	Mftrs. List No.	Rated Current	Order Code	Mftrs. List No.	Rated Current
444-6069	G6K-2P 3DC	33mA	444-6197	G6K-2P 3DC	9.1mA
444-6082	G6K-2P 5DC	21.1mA	444-6203	G6K-2P 5DC	4.6mA
444-6094	G6K-2P 12DC	9.1mA	444-6215	G6K-2P 12DC	33mA
444-6100	G6K-2P 24DC	4.6mA	444-6239	G6K-2P 24DC	21.1mA
444-6136	G6K-2PY 5DC	21.1mA	206-8192	G6K-2PY 5DC	11.3mA
444-6148	G6K-2PY 12DC	9.1mA	444-6240	G6K-2PY 12DC	9.1mA
444-6150	G6K-2PY 24DC	4.6mA	444-6252	G6K-2PY 24DC	4.6mA
118-1065	G6KU-2PY 3DC	33mA	118-1070	G6KU-2PY 3DC	33mA
444-6161	G6K-2F 3DC	33mA	206-8195	G6K-2F 3DC	33mA
444-6185	G6K-2F 5DC	21.1mA	206-8196	G6K-2F 5DC	23.2mA
206-8190	G6K-2F 9DC	11.3mA	206-8193	G6K-2F 9DC	9.1mA
206-8191	G6K-2F-RF 9DC	11.3mA	206-8194	G6K-2F-RF 9DC	4.6mA

311836

COIL Volts	Resistance	Order Code	Price Each 1+	+	+	+	+
Single-sided stable							
3V	91ohm	**444-6069**					
5V	237ohm	**444-6082**					
12V	1.315kohm	**444-6094**					
24V	5.22kohm	**444-6100**					
3V	91ohm	SMD **444-6161**					
5V	237ohm	SMD **444-6185**					
9V	795ohm	NEW **206-8190**					
9V	795ohm	NEW **206-8191**					
12V	1.315kohm	SMD **444-6197**					
24V	5.22kohm	SMD **444-6203**					

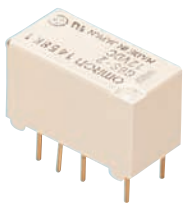
DPDT 1A - continued

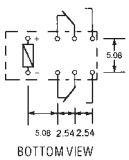
G6K Series - continued

COIL Volts	Resistance	Order Code	Price Each 1+	+	+	+	+
Single-side stable Bellcore							
5V	237ohm	**444-6136**					
12V	1.315kohm	**444-6148**					
24V	5.22kohm	**444-6150**					
3V	91ohm	SMD **444-6215**					
5V	237ohm	SMD **444-6239**					
9V	795ohm	NEW **206-8192**					
12V	1.315kohm	SMD **444-6240**					
24V	5.22kohm	SMD **444-6252**					
Single-sided stable Gullwing							
3V	91ohm	NEW **206-8195**					
4.5V	194ohm	NEW **206-8196**					
12V	1.315kohm	NEW **206-8193**					
24V	5.22kohm	NEW **206-8194**					
Single Winding Latching							
3V	91ohm	**118-1065**					
3V	91ohm	SMD **118-1070**					

Subminiature - High Sensitivity - G6S Series

OMRON





- DPCO contacts
- Satisfies BELL-CORE requirements for 2.5K coil/contact isolation
- Lower power consumption
- Fully sealed
- **UL** Recognised and **CSA** approved

L=14.8, W=7.3, H=10.8

Contact arrangement	DPCO	Coil consumption (nom.)	140mW (5V, 12V), 200mW (24V)
Contact rating	2A @ 30V dc, 500mA @ 125V ac	Operate/Release	2.5ms/1.5ms
Contact material	Silver, Gold Plated	Coil operating range	75 - 140% (@ 70°C)%
Max. switch voltage	220VDC,240VAC	Temperature range	-40°C to +85°C

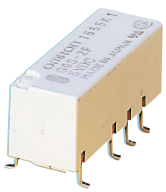
206980

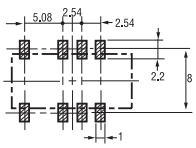
COIL Volts	Ω	Order Code	Price Each 1+	+	+	+	+
DPCO - G62-2 Series							
5V dc	178	**995-0052**					
12V dc	1.028	**995-0060**					
24V dc	2.88	**995-0079**					

Subminiature - G6S Series

OMRON

High Sensitivity





Top View

L=15, W=7.5, H=9.4

- Long terminals for soldering and mounting reliability
- High dielectric withstand voltage 2kV coil-contact, 1.5kV contact-contact
- High coil sensitivity (140mW)
- **UL** Recognised and **CSA** approved
- Y version is certified to **EN60950/EN41003**

Contact arrangement	DPCO	Coil operating range	75% - 170%
Contact rating	500mA @ 125V ac, 2A @ 30V dc	Operate/Release	4ms/4ms
Contact material	Silver, Gold Plated	Temperature range	-40°C to +85°C
Coil consumption	140mW		

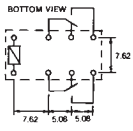
207033

COIL Volts	Ω	Order Code	Price Each 1+	+	+	+
DPCO Outside L Terminals - G6S-2F Series						
4.5V dc	145ohm	NEW **207-6220**				
4.5V dc	145ohm	NEW **207-6224**				
5V dc	178ohm	NEW **207-6221**				
5V dc	178ohm	NEW **207-6223**				
6V dc	180ohm	NEW **207-6225**				
12V dc	1.028kohm	NEW **207-6218**				
12V dc	1.028kohm	NEW **207-6222**				
24V dc	2.88kohm	NEW **207-6219**				

COIL Volts	Ω	Order Code	Price Each 1+	+	+	+
DPCO Inside L Terminals - G6S-2G Series						
3V dc	90ohm	NEW **207-6228**				
4.5V dc	145ohm	NEW **207-6229**				
5V dc	178ohm	NEW **207-6231**				
6V dc	180ohm	NEW **207-6232**				
9V dc	405ohm	NEW **207-6233**				
24V dc	2.88kohm	NEW **207-6227**				
48V dc	11.4kohm	NEW **207-6230**				
DPCO PCB Terminals - G6S-2 Series						
4.5V dc	145ohm	NEW **207-6216**				
6V dc	180ohm	NEW **207-6217**				
DPCO Outside L Terminals - G6S-2FY Series						
5V dc	178ohm	SMD **995-0028**				
12V dc	1.028kohm	SMD **995-0036**				
24V dc	2.88kohm	SMD **995-0044**				
DPCO PCB Terminals - G6S-2Y Series						
3V dc	90ohm	NEW **207-6234**				
4.5V dc	145ohm	NEW **207-6235**				
5V	125ohm	**118-1055**				
24V	2.504kohm	**118-1057**				
6V dc	180ohm	NEW **207-6236**				
9V dc	405ohm	NEW **207-6237**				

Subminiature - G5V-2 Series

OMRON



- DPCO contacts
- Fully sealed
- 10mA to 2A switching
- Bifurcated contacts ideal for signal switching
- **UL** Recognised and **CSA** approved
- Conforms to **FCC Part 68**

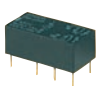
Contact arrangement	DPCO	Coil consumption	500mW
Contact rating	2A @ 30V dc, 500mA @ 125V ac	High sensitivity	150mW
		Operate/Release	7ms/3ms
Contact material	Silver, Gold Clad	Coil operating range	75% - 120%
Dielectric strength	1000V ac (coil-contact)	Temperature range	-25°C to +65°C

206957

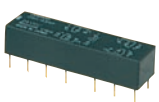
COIL Volts	Ω	Order Code	Price Each 1+	+	+	+	+
DPCO - G5V-2 Series							
4.5V dc	40	**994-9810**					
5V dc	50	**994-9488**					
9V dc	162	**994-9828**					
12V dc	288	**994-9496**					
24V dc	1.152kohm	**994-9500**					
48V dc	4kohm	**994-9836**					
High Sensitivity DPCO - G5V-2-H Series							
5V dc	167	NEW **206-5723**					
12V dc	960	NEW **206-5720**					
24V dc	3.84kohm	NEW **206-5722**					
Ultra Sensitivity DPCO - G5V-2-HI Series							
3V dc	60	NEW **206-5724**					
5V dc	166	**994-9844**					
6V dc	240	NEW **206-5726**					
9V dc	540	**994-9852**					
12V dc	960	**994-9860**					
24V dc	2.88kohm	**994-9879**					
48V dc	7.68kohm	NEW **206-5725**					

High Sensitivity - G6A Series

OMRON



G6A-234P
L=20.2, W=10.1, H=8.0



G6A-434P
L=35.4, W=10.1, H=8.0

- DPCO and 4PCO bifurcated contacts
- Fully sealed, suitable for immersion cleaning
- Satisfies **CCIT** lighting test requirement
- Permanent magnet construction, coil polarity must be observed

Contact arrangement	DPCO/4PCO	Coil consumption:	G6A-234P/G6AK-234P	200mW / 180mW
Contact rating	300mA @ V ac 1A @ 60V dc		G6A-434P/G6AK-434P	360mW / 320mW
		Operate/Release:	G6A-234P/G6AK 234P	5ms/5ms
Contact material	Ag (Au-Alloy)		G6A-434P/G6AK 234P	7ms/5ms
Coil operating range	70 - 150%	Temperature range	-25°C to +70°C	

207098

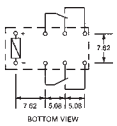
COIL Volts	Ω	Order Code	Price Each 1+	20+	100+	250+	500+
DPCO - G6A-234P Series							
4.5VDC	101	**994-8988**					
5VDC	125	NEW **206-8202**					
12VDC	720	**994-8996**					
24VDC	2.88kohm	**994-9003**					
DPCO - G6A-274P Series							
5VDC	125	NEW **206-8203**					

RoHS ● Compliant ▲ Non-compliant

COIL Volts	Ω	Order Code	Price Each 1+	20+	100+	250+	500+
DPCO Latching - G6AK-234P Series							
5VDC	139 + 139	**118-1048**					
12VDC	800 + 800	**118-1049**					
12VDC	800 + 800	**207-6387**					
24VDC	3.2kohm + 3.2kohm	**207-6388**					
DPCO Latching - G6AK-274P Series							
5VDC	139 + 139	**207-6389**					
24VDC	3.2kohm + 3.2kohm	**207-6390**					

High Isolation - G6A-BS Series

OMRON



L=20.2, W=10.1, H=8.0

- DPCO contacts
- Approved to **BABT BS6301**
- Fully sealed
- 2KVrms isolation coil/contact and 2.5mm creepage/clearance
- Suitable for telecoms and office equipment

Contact arrangement	DPCO	Coil consumption	280mW
Contact rating	300mA @ 110V ac 1A @ 60V dc	Operate/Release	5ms/3ms
		Coil operating range	70 - 150%%
Contact material	Gold overlay Silver Palladium	Temperature range	-10°C to +70°C

207144

COIL Volts	Ω	Order Code	Price Each 1+	+	+	+	+
DPCO - G6A-234P-BS Series							
5V dc	89	**994-9100**					
12V dc	514	**994-9119**					
24V dc	2.057	**994-9127**					

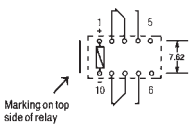
Signal Relays - Panasonic

Subminiature - TQ2/TQ2-L2 Series

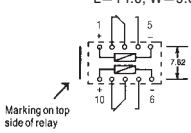
Panasonic

Latching/Non-latching, High Sensitivity PCB and Surface Mounts

L=14.0, W=9.0, H=4.75. Pin spacing=2.54



TQ2 Non-latching



TQ2-L2 Latching

Diagram shows the 'reset' position when terminals 6 and 10 are energised.
Energise terminals 1 and 5 to transfer contacts.

- DPCO subminiature relay fully sealed to **IP67**
- Gold plated crossbar contacts ensure maximum reliability
- Insertion loss below 0.1dB at 100MHz
- Sealed to **IP67**
- **UL** Recognised and **CSA** approved
- Surface mount version available

Contact arrangement	DPCO, bifurcated contacts
Contact rating	500mA @ 125V ac, 1A @ 30V dc
Switched current range	10μA - 1A
Switched voltage range	10mV - 125V
Max. power	300W/100VA
Contact material	Silver, Gold Plated
Coil consumtion (nom.)	140mW (non latching), 200mW (latching)
Operate/Release	3ms/3ms
Coil operating range	75 - 130% @ 40°C
Temperature range	-40°C to +70°C (PCB type) -40°C to +85°C (SM type)

207158

COIL Volts	Ω	Order Code	Price Each 1+	25+	50+	100+	500+
DPCO - TQ2 Series							
5V dc	178	**117-5716**					
12V dc	1.028	**120-0949**					
24V dc	2.88	**117-5717**					
Latching DPCO - TQ2-L2 Series							
5V dc	125+125	**117-5718**					
12V dc	720+720	**117-5719**					
24V dc	1.92+1920	**117-5720**					
Surface Mount - DPCO - TQ2SA Series							
4.5V dc	145	NEW SMD **209-5590**					
5V dc	178	SMD **112-4054**					
12V dc	1.028	SMD **112-4056**					
24V dc	2.88	SMD **112-4057**					
Surface Mount - Latching DPCO - TQ2SA-L2 Series							
5V dc	178+178	SMD **625-760**					
12V dc	1.028+1028	SMD **112-4058**					

Miniature - TN/TNL/TNL2 Series

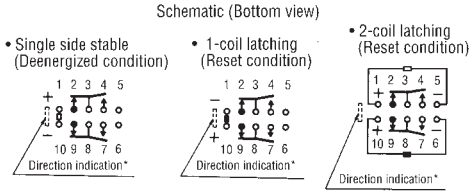
Panasonic

Non Latching/1 Coil Latching/2 Coil Latching

- Ultra slim telecoms relay with 5.6mm width for minimal PCB mounting requirements
- Small header area makes higher density packaging possible
- High coil sensitivity
- Fully sealed construction
- High surge voltage resistance - 1500V **FCC Part 68**
- **UL** Recognised and **CSA** approved

L=14, W=5.6, H=9.8,
Pin spacing 2.54,
PCB hole dia=1.0

Schematic (Bottom view)



*Orientation stripe located on top of relay

Contact arrangement	DPCO
Contact rating	500mA @ 125V ac, 1A @ 30V dc
Contact material	Silver, Gold Plated
Coil consumtion	140mW (non latching), 100mW (1 coil latching), 200mW100mW200mW (2 coil latching)
Coil operating range	75 - 150%
Operate/Release	2ms/1ms
Temperature range	-40°C to +70°C

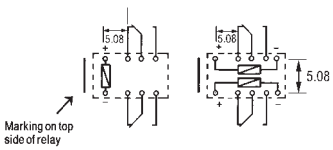
207129

COIL Volts	Ω	Order Code	Price Each 1+	25+	50+	100+	500+
DPCO - TN Series							
5V dc	178	**120-0955**					
12V dc	1.028	**120-0956**					
24V dc	2.88	**910-405**					
1 Coil Latching DPCO - TN-L Series							
5V dc	250	**910-417**					
2 Coil Latching DPCO - TN-L2 Series							
5V dc	125	**910-442**					

Subminiature - High Sensitivity - TX2 Series

Panasonic

PCB and Surface Mount



L=15, W=7.4, H=8.2 PCB hole dia=1.0
Pin Spacing=2.54

- High contact capacity : 2A 30V dc
- High coil/contact breakdown voltage 2kV
- High insulation version conforming to **EN41003** available
- Surface mount versions available with gull wing contacts

Contact arrangement	DPCO	Operate/Release	4ms/4ms
Contact rating	2A @ 30V dc, 500mA @ 125V ac	Coil operating range	75 - 150%
Max. switching power (res)	60W60W	Temperature range	-40°C to +85°C
Min. switching capability	10μA - 10mV dc		
Contact material	Silver Alloy, Gold Clad		
Coil consumption (nom.)	Non-Latching: 140mmW Latching: 200mW		

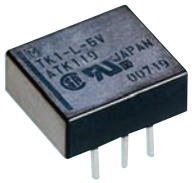
207013

COIL Volts	Ω	Order Code	Price Each 1+	25+	50+	100+	500+
DPCO - TX2 Series							
5V dc	178	**120-0950**					
9V dc	579	NEW **209-5591**					
12V dc	1.028	**120-0952**					
24V dc	4.114	**112-4059**					
Surface Mount - DPCO - TX2SA Series							
5V dc	178	**120-0957**					
12V dc	1.028	**910-480**					
Latching DPCO - TX2-L2 Series							
5V dc	125+125	**625-826**					
12V dc	720+720	**112-4060**					
24V dc	2.88+2880	**112-4061**					

4A Polarized

TK Series

Panasonic



- Low profile 4mm (0.157")
- High contact capacity 2A
- Surge withstand voltage between contact and coil 2500V (Telecordia)
- **UL** Recognised, **CSA** & **BSI** approved

H = 4, W = 10.6, D = 9mm

Switching voltage max.	220VDC	Contact material	Gold Clad Silver
Switching power max.	60W	Operate/Release	3ms/2ms
Carrying current max.	2A	Breakdown voltage	1500V FCC (Surge between open contacts)
Coil power	140mW	Temperature range	-40°C to +85°C

Mftrs. List No.		Order Code
TK1-5V	=	138-0960
TK1-12V	=	138-0961

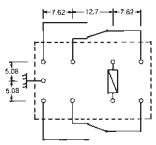
475496

COIL Volts	Ω	Order Code	Price Each 1+	25+	50+	100+	500+
SPDT - Single Side Stable - 1 Form C							
5V	178	**138-0960**●					
12V	1.028	**138-0961**●					

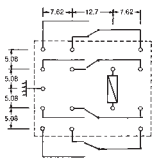
Low Profile - NF2EB/4EB Series

Sealed

Panasonic



NF2EB
L=29.6, W=19.6, H=10.8



NF4EB
L=29.6, W=24.2, H=10.8

- DPCO and 4PCO contacts
- Fully sealed
- **UL** Recognised
- **CSA** and **VDE** approved

Contact arrangement	DPCO/4PCO	Operate/Release	15ms/10ms
Contact rating	2A @ 30V dc, 50V ac	Coil operating range	70 - 175%%
Contact material	Silver, Gold Clad	Temperature range	-40°C to +65°C
Coil consumption	DPCO 290mW 4PCO 400mW		

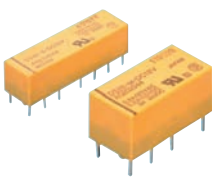
207103

COIL Volts	Ω	Order Code	Price Each 1+	50+	100+	250+	500+
DPCO - NF2EB Series							
12V dc	500	**120-0946**●					
24V dc	2	**117-5714**●					
4PCO - NF4EB Series							
5V dc	53	**120-0947**●					
12V dc	330	**117-5715**●					
24V dc	1.2	**120-0948**●					

Subminiature - DS2 Series

Latching/Non-latching

Panasonic



Switching voltage max.	220VDC, 250V ac
Switching power max.	60W/125VA
Carrying current max.	3A ac & dc
Contact material	Silver, Gold Clad
Operate/Release	3ms/2ms
Breakdown voltage	1500V FCC (Surge between open contacts)
Temperature range	-40°C to +70°C

- High sensitivity
- High switching capacity
- High breakdown voltage
- Can be used with IC socket
- **UL** Recognised, **CSA** & **BSI** approved

Order Code	Mftrs. List No.	Coil Power			
438-9920	DS2E-S-DC5V	200mW	138-0946	DS2E-M-DC5V	400mW
438-9931	DS2E-S-DC12V	200mW	138-0948	DS2E-M-DC12V	400mW
438-9943	DS2E-S-DC24V	200mW	138-0949	DS2E-M-DC24V	400mW

272334

COIL Volts	Ω	Order Code	Price Each 1+	25+	50+	100+	500+
DPDT - Single Side Stable - 2 Form C							
5V	125	**438-9920**●					
12V	720	**438-9931**●					
24V	2.88	**438-9943**●					
5V	62.5	**138-0946**●					
12V	360	**138-0948**●					
24V	1.44	**138-0949**●					
DPDT - 2 Coil Latching - 2 Form C							
5V	139+139	**438-9955**●					
12V	800+800	**438-9967**●					

Signal Relays - Tyco Electronics

1A Subminiature

P1 Series

Tyco Electronics

- SPCO sealed relay
- Suitable for data, telecomms, control or medical equipment
- **UL** Recognised, **CSA** and **CECC** approved

Contact arrangement	SPDT, 1 Form C	Coil consumption	60mW to 130mW65
Contact rating	1A @ 30V dc (30W), 500mA @ 110V ac (60VA)	Operate/Release	1ms/1ms
		Coil operating range	75 - 200%
Contact material	Rhodium	Temperature range	40°C to +70°C

Mftrs. List No:						
V23026-A1001-B201	= 5	117-4999	V23026-A1002-B201	= 12	117-5000
V23026-A1004-B201	= 24	117-5001			

206964

COIL Volts	Ω	Order Code	Price Each 1+	10+	25+	100+	500+	+
Monostable Single coil								
5V dc	370	**117-4999**●						
12V dc	2.25	**117-5000**●						
24V dc	4.5	**117-5001**●						

SPDT 1A

OUAZ Series

Tyco Electronics

- Contacts suitable for low loads
- Small size
- 2.54 terminal pitch - same as IC socket terminal pitch
- Sensitive coil, 200mW
- Immersion cleanable, sealed plastic case
- **UL** Recognised and **CSA** Approved

H=11.2, W=15.4, D=10.4mm

Contact arrangment	1 SPDT
Mechanical life	10,000,000 Operations (no load)
Electrical life	100,000 operations (rated load)
Minimum load	1mA @ 1V dc/240W
Contact resistance (initial)	50mohm @ 100mA, 6V dc
Contact ratings	1A @ 24V dc, 120VA ac (resistive)
Max. switched voltage	120V ac, 60V dc
Max. switched power	120VA, 30W
Dielectric strength (coil/contacts)	1000V ac 50/60Hz (1 min.)
Operating temperature	-30 to 75°C

Order Code	Mftrs. List No.	Order Code	Mftrs. List No.
119-7687	OUAZ-SH-112L	117-5096	OUAZ-SH-124L

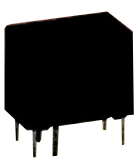
311797

COIL Volts	Ω	Order Code	Price Each 1+	20+	50+	100+	250+
12V	700	**119-7687**●					
24V	2.8	**117-5096**●					

Subminiature - TSC Series

High Sensitivity

Tyco Electronics



L=12.5, W=7.5, H=10

- High sensitive coil, 150mW
- IC Compatible
- Suitable for telecom applications
- Fully sealed
- **CSA** Approved, **UL** Recognised

Contact rating	1A @ 120V ac/24V dc
Contact material	AgNi 0.15 + Au overlay
Coil consumption	150mW
Operate/Release	5ms/5ms
Temperature range	-40°C to +85°C

207074

COIL Volts	Ω	Mftrs. List No.	Order Code	Price Each 1+	20+	50+	100+
SPCO - TSC Series							
5V	166	TSC-105L3H	**965-9668**●				
12V	960	TSC-112L3H	**117-5060**●				
24V	3.84	TSC-124L3H	**117-5061**●				

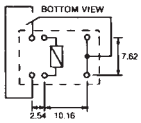
RoHS ● Compliant ▲ Non-compliant

Subminiature - V23101/5 Series

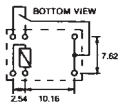
Tyco Electronics

V23101D
L=15.6, W=10.6, H=11.5,
PCB hole dia.=1

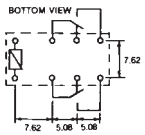
V123102C
L=20.2, W=10.0, H=10.7,
PCB hole dia.=0.8



Configuration A



Configuration B



Configuration C

- SPCO birfurcated contacts
- Sealed to **IP67** suitable for immersion cleaning

Contact arrangement	SPCO
Contact rating	
Max. current	1.25A (switching)/1.25A (continuous)1.25
Max. voltage	120V dc/125V ac
Max. power	30W/62.5VA
Contact material	Silver Palladium, gold plated
Operate time	5ms
Release time	3ms
Coil consumption	450mW
Coil operating range	75 - 143%
Temperature range	40°C to +85°C

Coil Voltage	Sensitive/ Standard	Terminal Config. Diagram	Mftrs. List No.	Order Code
SPCO Relays:				
12V dc	Standard	B	V23101-D0006-B201	117-5004
24V dc	Standard	A	V23101-D0007-A201	117-5006

206975

COIL Volts	Ω	Order Code	Price Each 1+	20+	50+	100+	250+
SPCO - V23101-D Series							
12V dc	320	**117-5004**●					
24V dc	1.28	**117-5006**●					

High Sensitivity - V23040 Series

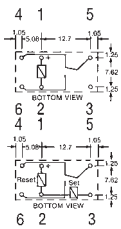
Tyco Electronics

Latching/Non-latching

Connections on latching type: When pin 2 is more +tive than pin 1 then the relay assumes the off position (contacts 4/5 closed). When pin 1 is more +tive than pin 2 (or pin 2 more than pin 3) the relay switches to the on position (contacts 5/6 closed).

V23040A L=20.0, W=10.0, H=8.2 PCB hole dia.=1.0

V23040B L=20.0, W=10.0, H=8.2PCB hole dia.=1.0



- SPCO bifurcated contacts
- 'Getter' protected chamber gives exceptional life 10^8 operations
- Low profile, fully encapsulated metal case
- **UL** Recognised and **CSA** approved

Contact arrangement	SPCO	Contact material	Rhodium
Contact rating:		Coil consumption	From 80mW - 5V version
Max. current	2A	Operate/Release	2ms/1ms
Max. voltage	150V dc/125V ac	Coil operating range	70 - 180%
Max. power	35W/60VA	Temperature range	-40°C to +70°C

207100

COIL Volts	Ω	Order Code	Price Each 1+	20+	50+	100+	250+	+
SPCO - V23040-A B201 Series								
5V dc	320	**117-4993**●						
12V dc	1.14	**117-4994**●						
24V dc	4.37	**117-4995**●						
Latching SPCO - V23040-B B201 Series								
5V dc	315+315	**117-4996**●						
12V dc	1.1+1100	**117-4997**●						

2A, Subminiature

Tyco Electronics

P2 V23079 Series

- Standard telecom relay (Ringing and test access)
- Through Hole Type and Surface Mount Type available
- 5A maximum switching current
- Bifurcated contacts
- High sensitivity - 140mW
- High mechanical shock resistance
- Immersion cleanable
- **UL** Recognised

L=15mm, B=7,5mm, H=9,9mm

Contact arrangement	DPDT - 2 C/0 (2 Form C)
Contact rating	2A Carry, 5A Switching @ 220V dc, 250V ac
Switching capacity	62.5 VA, 60W
Contact Material	Silver Nickel, Gold Overlay
Coil consumption	140 mW
Operate/Release	3/4 ms typical
Temperature range	-40°C to +85°C

Order Code	Mftrs. List No.	Type	Order Code	Mftrs. List No.	Type
421-9960	1393788-3	V23079-A1001-B301	422-0006	3-1393788-6	V23079B1203B301
117-5081	1-1393788-1	V23079-A1003-B301	Order Code	Mftrs. List No.	Type
117-5082	1-1393788-6	V23079-A1005-B301	422-0020	4-1393788-5	V23079C1101B301
421-9995	3-1393788-3	V23079B1201B301	162-9014	4-1393789-3	V23079D2001B301
			162-9015	4-1393789-5	V23079D2003B301

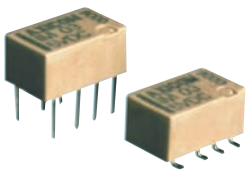
240021

COIL Volts	Ω	Order Code	Price Each 1+	20+	50+	100+
THT - Non-Latching - Standard Version, single coil						
5V dc	178	**421-9960**●				
12V dc	1.029	**117-5081**●				
24V dc	4.114	**117-5082**●				
THT - Latching - Standard Version, two coils						
5V dc	178	**421-9995**●				
12V dc	1.029	**422-0006**●				
THT - Latching - Standard Version, single coil						
5V dc	357	**422-0020**●				
SMT Long pins - Non-Latching - Overmolded single coil Version						
5V	178	SMD **162-9014**●				
12V	1.029	SMD **162-9015**●				

2A, Ultraminature

Tyco Electronics

IM Series



L = 10, W = 6, H = 5.65 mm

- Telecom/signal relay (Dry circuit, test access, ringing)
- Minimum board space 60mm^2
- Gold plated, bifurcated contacts
- Low power consumption
- High surge capacity meets Telecordia GR 1089, FCC Part 68 and ITU-T K20, 21, 45
- High mechanical shock resistance, up to 300 G functional, up to 500 G survival
- Hermetically sealed (RT V)
- Tested according to **CECC/IECQ** and certified in accordance with **IEC/EN 60950** and **UL 60950**

Contact rating	2A @ 250V ac, 220VDC	Operate/Release	3 ms/3 ms - max.
Switching capacity	62.5VA/240W	Temperature range	-40°C to +85°C
Contact Material	PdRu + Au covering		

Order Code	Mftrs. List No.	Type	Order Code	Mftrs. List No.	Type
132-6155	0-1462037-4	IM01TS	162-9009	9-1462037-9	IM06CGR
117-5066	1-1462037-8	IM03TS	162-9011	9-1462038-9	IM03DGR
117-5067	2-1462037-7	IM06TS	162-9012	1-1462039-8	IM06DGR
421-9211	3-1462037-0	IM07TS	162-9006	2-1462039-9	IM23GR
177-0584	1-1462038-3	IM03NS	162-9007	3-1462039-1	IM26GR
177-0586	1-1462038-6	IM06NS	162-9004	3-1462039-0	IM23TS
177-0587	1-1462038-7	IM07NS	162-9005	3-1462039-2	IM26TS
132-6157	0-1462037-1	IM01GR	177-0594	5-1462039-5	IM03PGR
117-5068	0-1462037-9	IM02GR	177-0595	5-1462039-6	IM06PGR
117-5069	1-1462037-4	IM03GR	177-0596	5-1462039-9	IM03PNS
117-5070	2-1462037-3	IM06GR	177-0598	6-1462039-0	IM06PNS
132-6154	4-1462037-7	IM07GR	177-0599	1462041-7	IMB03CGR
177-0588	5-1462037-8	IM43TS	177-0600	1462041-3	IMB06CGR
177-0589	6-1462037-6	IM46TS	177-0601	1462041-8	IMB03CTS
177-0590	6-1462037-9	IM47TS	177-0602	1462041-6	IMB06CTS
177-0591	2-1462038-1	IM43NS	177-0604	1462042-8	IMC03GR
177-0592	2-1462038-4	IM46NS	177-0605	1462042-3	IMC06GR
177-0593	2-1462038-5	IM47NS	177-0606	1462042-7	IMC03TS
162-8996	5-1462037-9	IM43GR	177-0607	1462042-6	IMC06TS
162-8997	6-1462037-7	IM46GR	177-0608	1462043-3	IME03GR
162-8998	7-1462037-0	IM47GR	177-0609	1462043-4	IME06GR
162-9000	1462039-4	IM13GR	177-0610	1462043-7	IME03TS
162-9003	1462039-6	IM17GR	177-0611	1462043-8	IME06TS

239930

COIL Volts	Ω	Order Code	Price Each 1+	20+	50+	100+	250+
THT Standard - Non-Latching - DPDT							
3V	64	**132-6155**●					
5V	178	**117-5066**●					
12V	1.028k	**117-5067**●					
24V	2.88k	**421-9211**●					
THT Narrow - Non-Latching - DPDT							
5V	178	**177-0584**●					
12V	1.029k	**177-0586**●					
24V	2.88k	**177-0587**●					
SMT Gull Wing - Non-Latching - DPDT							
3V	64	SMD **132-6157**●					
4.5V	145	SMD **117-5068**●					
5V	178	SMD **117-5069**●					
12V	1.028k	SMD **117-5070**●					
24V	2.88k	SMD **132-6154**●					

2A, Ultraminature - continued

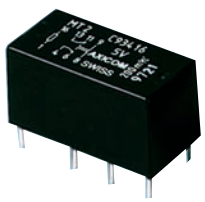
IM Series - continued

COIL Volts	Ω	Order Code	Price Each 1+	20+	50+	100+	250+
THT Standard - Latching - DPDT							
5V	250	**177-0588**					
12V	1.44k	**177-0589**					
24V	2.88k	**177-0590**					
THT Narrow - Latching - DPDT							
5V	250	**177-0591**					
12V	1.44k	**177-0592**					
24V	2.88k	**177-0593**					
SMT Gull Wing - Latching - DPDT							
5V	250	SMD **162-8996**					
12V	1.44k	SMD **162-8997**					
24V	2.88k	SMD **162-8998**					
SMT Gull Wings - Non-Latching - High Sensitive - DPDT							
5V	238	SMD **162-9000**					
24V	4.12k	SMD **162-9003**					
SMT Gull Wings - Non-Latching - High Dielectric - DPDT							
12V	1.028k	SMD **162-9009**					
SMT Gull Wings - Non-Latching - High Current/Low Contact Resistance - DPDT							
5V	178	SMD **162-9011**					
12V	1.028k	SMD **162-9012**					
SMT Gull Wings - Non-Latching - Ultra High Sensitive - DPDT							
5V	500	SMD **162-9006**					
12V	2.88k	SMD **162-9007**					
THT - Non-Latching - Ultra High Sensitive - DPDT							
5V	500	**162-9004**					
12V	2.88k	**162-9005**					
SMT Gull Wings - Non-Latching - High Contact Stability - DPDT							
5V	178	SMD **177-0594**					
12V	1.029k	SMD **177-0595**					
THT - Non-Latching - High Contact Stability - DPDT							
5V	178	**177-0596**					
12V	1.029k	**177-0598**					
SMT Gull Wings - Non-Latching - SPST-NO							
5V	178	SMD **177-0599**					
12V	1.029k	SMD **177-0600**					
THT - Non-Latching - SPST-NO							
5V	178	**177-0601**					
12V	1.029k	**177-0602**					
SMT Gull Wings - Non-Latching - SPDT							
5V	178	SMD **177-0604**					
12V	1.029k	SMD **177-0605**					
THT - Non-Latching - SPDT							
5V	178	**177-0606**					
12V	1.029k	**177-0607**					
SMT Gull Wings - Non-Latching - DPST-NO							
5V	178	SMD **177-0608**					
12V	1.029k	SMD **177-0609**					
THT - Non-Latching - DPST-NO							
5V	178	**177-0610**					
12V	1.029k	**177-0611**					

DPCO 2A

Tyco Electronics

MT2 Series, non-latching



- 2 pole telecom/signal relay
- THT type
- Non-polarized, non-latching coil
- Bifurcated contacts
- Immersion cleanable

H=11, W=20.2, D=10mm

Contact arrangement	DPDT - 2 Form C	Contact Material	Silver- Nickel, Gold Covered
Switching voltage max.	220VDC / 250VAC	Coil consumption	150 / 200 / 400 / 550mW
VSWR @ 900 MHz	1.31	Operate/Release	4 / 1ms typical
Continuous contact current	2A @ max. ambient temp.	Temperature range	-55 to 85°C
Switching capacity	2A		

Order Code	Mftrs. List No.	Order Code	Mftrs. List No.
991-3645	MT2-C93401	991-3696	MT2-C93419
991-3653	MT2-C93402	991-3700	MT2-C93422
991-3661	MT2-C93403	991-3718	MT2-C93424
991-3670	MT2-C93416	991-3726	MT2-C93425
991-3688	MT2-C93418	991-3742	MT2-C93432

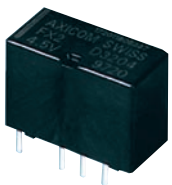
414027

COIL Volts	Ω	Order Code	Price Each 1+	20+	50+	100+
High sensitive version (150 mW)						
5V	168	**991-3645**				
12V dc	968	**991-3653**				
24V dc	3.872	**991-3661**				
Sensitive version (200 mW)						
5V	125	**991-3670**				
12V dc	720	**991-3688**				
24V dc	2.88	**991-3696**				
Standard version (400 mW)						
5V	63	**991-3700**				
12V dc	360	**991-3718**				
24V dc	1.44	**991-3726**				
Standard version (550 mW)						
12V	280	**991-3742**				

DPDT 2A

Tyco Electronics

FX2 Series, single coil



- 2 pole telecom/signal relay
- THT type
- Bifurcated contacts
- Robust construction - mechanical shock up to 300 G
- Immersion cleanable

H=10.7, W=14.93, D=7.27mm

Contact arrangement	DPDT - 2 Form C
Switching voltage max.	220VDC / 250VAC
VSWR @ 900 MHz	1.45
Continuous contact current	2A @ max. ambient temperature
Switching capacity	60W / 60VA
Contact Material	Palladium-Ruthenium - Gold Covered
Operate/Release	3 / 3ms typical
Temperature range	-55 to 85°C

Order Code	Mftrs. List No.	Part No.	Order Code	Mftrs. List No.	Part No.
991-3882	FX2-D3209	1462034-9	991-3920	FX2-D3226	2-1462034-4
991-3890	FX2-D3202	1462034-1	991-3939	FX2-D3227	2-1462034-5
991-3904	FX2-D3212	1-1462034-4	991-3947	FX2-D3243	3-1462034-0
991-3912	FX2-D3223	2-1462034-1			

414048

COIL Volts	Ω	Order Code	Price Each 1+	20+	50+
Non-latching Single coil					
5V	178	**991-3882**			
12V dc	1.028	**991-3890**			
24V dc	2.88	**991-3904**			
Non-latching Single coil - Sensitive version					
5V	313	**991-3912**			
12V dc	1.8	**991-3920**			
24V dc	4.114	**991-3939**			
Latching Single coil					
5V	250	**991-3947**			

High Sensitivity

Tyco Electronics

D2n Series

- DPCO contacts
- Fully sealed
- **UL** Recognised and **CSA** approved

Contact arrangement	DPCO	Coil consumption	200mW / 400mW
Contact Rating	3A @ 220V dc 3A @ 250V ac	Operate/Release time	6ms/4ms
		Coil operating range	70 to 150%
Contact material	Silver-nickel, Gold-covered	Temperature range	-25 to 70°C

622324

COIL Volts	Ω	Mftrs. List No.	Order Code	Price Each 1+	20+	50+	100+	250+
DPCO - V23105-3 Series - 200mW								
5	125	V23105-A5301-A201	**117-4983**					
12	720	V23105-A5303-A201	**117-4984**					
24	2.88	V23105-A5305-A201	**117-4985**					
DPCO - V23105-3 Series - 400mW								
5	62	1393793-6	**421-9582**					

BT 47 Type - 3A

Tyco Electronics

D2n Series

- DPCO contacts
- **BT Type 47W**, **UL** Recognised
- Suitable for private and public telecoms
- Sealed housing

L = 20.3, W = 10.4, H = 11.4

RoHS ● Compliant ▲ Non-compliant

Contact arrangement	DPCO	Coil consumption	500mW
Contact rating - Max.	3A	Operate/Release	10ms/10ms
Breaking capacity - Max.	60W / 125VA	Coil operating range	70 - 150%
Contact material	Gold Silver Alloy on Silver Palladium	Temperature range	-25°C to +70°C

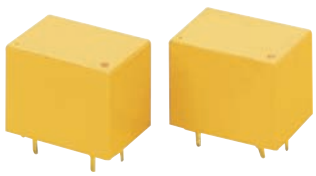
Order Code	Mftrs. List No.	Order Code	Mftrs. List No.
117-4986	V23105-A5475-A201	117-4989	V23105-A5477-A201
117-4987	V23105-A5476-A201	117-4991	V23105-A5478-A201

206954

British Telecom Code	COIL Volts	Ω	Order Code	Price Each 1+	20+	100+	250+
DPCO - V23105-4 Series							
47W/5	5V dc	36	**117-4986**				
47W/6	12V dc	280	**117-4987**				
47W/7	24V dc	1.050	**117-4989**				
47W/8	48V dc	4	**117-4991**				

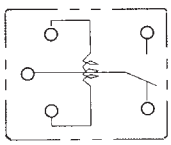
Power Relays - SPC MultiComp

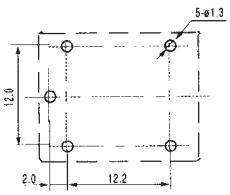
5A/10A Vertical - MCHRS4 Series



MCHRS4
H=15.8, W=15.5, D=19.0

MCHRS4E
H=17.0, W=15.5, D=21.5





- SPCO contacts
- Sealed to allow washing after flow soldering

Contact rating		Operate/release time
MCHRS4 Series	5A 240V ac / 24V	8ms/5ms
MCHRS4FH Series	10A 240V ac / 30V	10ms/5ms

207079/405694

COIL Volts	Ω	Order Code	Price Each 1+	20+	100+	250+
SPCO, 5A - MCHRS4 Series						
5V dc	50	**948-0102**				
12V dc	320	**948-0110**				
24V dc	820	**948-0129**				
SPCO, 10A - MCHRS4FH Series						
5V dc	70	**169-5972**				
12V dc	400	**169-5973**				
24V dc	1600	**169-5974**				

5A/10A/16A Vertical - MCHRM Series

Contact arrangement	SPST/SPDT/DPST
Contact Rating	SPST: 10A @ 250VAC/30VDC SPDT: 16A @ 250VAC/30VDC DPST: 5A @ 250VAC/30VDC
Dielectric Strength	1500VAC, 1min between open contacts 2500VAC, 1min between coil and contacts
Operate/Release	15ms/8ms

MCHRM: H=20.8, W=29, D=12.6mm
MCHRM1: H=20.8, W=29, D=12.6mm
MCHRM2: H=20.6, W=29, D=12.6mm
MCHRM3: H=25, W=24.4, D=10.4mm

- SPST, SPDT or DPST contacts
- Sealed to allow washing after flow soldering

207081/343556

COIL Volts	Ω	Order Code	Price Each 1+	+	+	+	+
SPST - Standard - 720mW - MCHRM Series							
5V dc	36	**948-0021**					
9V dc	115	**948-0030**					
12V dc	200	**948-0048**					
24V dc	820	**948-0056**					
SPST - High Sensitivety - 250mW - MCHRM3 Series							
5V dc	100	NEW **188-5597**					
12V dc	576	NEW **188-5598**					
24V dc	2.304k	NEW **188-5599**					

COIL Volts	Ω	Order Code	Price Each 1+	+	+	+	+
SPDT - Standard - 720mW - MCHRM2 Series							
5V dc	36	**948-0064**					
9V dc	115	**948-0072**					
12V dc	200	**948-0080**					
24V dc	820	**948-0099**					
SPDT - High Sensitivety - 540mW - MCHRM2 Series							
12V dc	267	NEW **188-5594**					
24V dc	1.067k	NEW **188-5596**					
DPST - Standard - 720mW - MCHRM1 Series							
5V dc	36	**947-9937**					
9V dc	115	**947-9945**					
12V dc	200	**947-9953**					
24V dc	820	**947-9961**					

5A and 10A - Miniature

MCHRS3T Series

NEW

Contact arrangement	SPST/SPDT
Contact Rating	SPST: 10A @ 125VAC, 5A @ 250VAC/30VDC SPDT: 5A/3A @ 250VAC/30VDC (NO/NC)
Dielectric Strength	1000VAC, 1min between open contacts
Operate/Release	8ms/5ms
Coil Consumption	450mW Standard
Operating Temperature	-40°C to 70°C

Dimensions: H=16, W=20.9, D=10.4mm

626665

COIL Volts	Ω	Order Code	Price Each 1+	20+	100+	250+	500+	1K+
SPST								
12V dc	320	**188-5590**						
24V dc	1.28K	**188-5591**						
SPDT								
12V dc	320	**188-5588**						
24V dc	1.28K	**188-5589**						

10A - Miniature

MCHRS3 Series

NEW

Contact arrangement	SPST
Contact Rating	10A @ 125VAC, 5A @ 250VAC/30VDC
Dielectric Strength	1000VAC, 1min between open contacts
Operate/Release	10ms/5ms
Coil Consumption	450mW Standard
Operating Temperature	-40°C to 85°C

Dimensions: H=16, W=18.6, D=10.4mm

626664

COIL Volts	Ω	Order Code	Price Each 1+	20+	100+	250+	500+	1K+
12V dc	320	**188-5586**						
24V dc	1.28K	**188-5587**						

30A - Sealed

MCCMP8 Series

NEW

Contact arrangement	SPDT
Contact Rating	SPDT: 20A @ 250VAC/24VDC (NO) SPDT: 15A @ 250VAC/24VDC (NC)
Dielectric Strength	1500VAC, 1min between open contacts 2500VAC, 1min between coil and contacts
Operate/Release	15ms/10ms
Coil Consumption	900mW
Operating Temperature	-30°C to 85°C

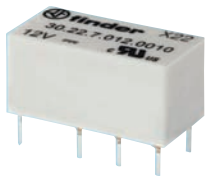
Dimensions: H=27, W=27.4, D=32mm

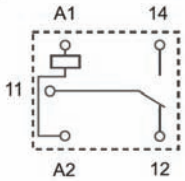
626666

COIL Volts	Ω	Order Code	Price Each 1+	20+	100+	250+	500+	1K+
12V dc	160	**188-5592**						
24V dc	640	**188-5593**						

2A Subminiature DIL Relays

30 Series





- 2 Pole changeover contacts
- Low level switching capability
- Subminiature - industry standard DIL package
- Sensitive DC coil - 200 mW
- Wash tight: RT III
- Cadmium Free contact material

Contact arrangement	DPDT - CO
Rated contact current/Max. peak current	2A / 3A
Rated contact voltage	125V
Contact Material	AgNi + Au
Operate/Release	6 / 2ms typical
Temperature range	-40 to 85°C

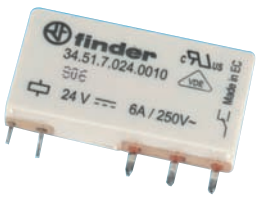
Order Code	Mftrs. List No.	Order Code	Mftrs. List No.
121-7368	30.22.7.005.0010	176-5075	30.22.7.048.0010
121-7369	30.22.7.012.0010	121-7371	30.22.9.024.0010
121-7370	30.22.7.024.0010		

548693

COIL Volts	Ω	Order Code	Price Each 1+	10+	50+	100+	250+
5	125	**121-7368**					
12	720	**121-7369**					
24	2.88K	**121-7370**					
48	11.52K	**176-5075**					
24	2.88K	**121-7371**					

6A Ultra-slim

34 Series



- Ultra slim, only 5mm wide
- Sensitive DC coil (170mW)
- 6kV insulation between coil and contacts

Contact arrangment	SPCO
Contact rating	6A @ 250V ac
Switching capacity	250V ac
Coil consumption/Power lost	0.17 mW

L = 28, W = 5, H = 15 mm

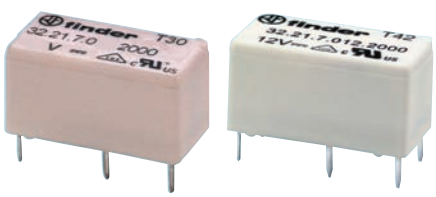
Order Code	Mftrs. List No.		
116-9338	34.51.7.005.0010	116-9343	34.51.7.024.5010
116-9339	34.51.7.012.0010	194-7878	34.51.7.005.0019
116-9340	34.51.7.024.0010	194-7879	34.51.7.012.0019
176-5076	34.51.7.048.0010	194-7880	34.51.7.024.0019
116-9341	34.51.7.005.5010	194-7881	34.51.7.048.0019

342151

COIL Volts	Ω	Order Code	Price Each 1+	25+	100+	250+
Flux Proof - Contact Material: AgNi						
5V dc	130	**116-9338**				
12V dc	840	**116-9339**				
24V dc	3.35K	**116-9340**				
48V dc	12.3K	**176-5076**				
Flux Proof - Contact Material: AgNi+Au						
5V dc	130	**116-9341**				
24V dc	3.35K	**116-9343**				
Flat Version - Contact Material: AgNi						
5V dc	130	NEW **194-7878**				
12V dc	840	NEW **194-7879**				
24V dc	3.35K	NEW **194-7880**				
48V dc	12.3K	NEW **194-7881**				
Accessories - Sockets						
DIN Rail mount		**132-9719**				
PCB Mount		**132-9720**				

6A Subminiature Relays

32 Series



- Low profile package
- THT type
- Sensitive coil - 200 mW
- Immersion cleanable: RT III

H=10.7, W=20.2, D=10mm

Rated contact current/Max. peak current	6A / 15A	Operate/Release	SPDT: 6 / 4ms typical
Rated contact voltage	250V		SPST-NO: 6 / 2ms typical
Contact Material	AgCdO	Temperature range	-40 to 85°C
Coil consumption	200mW		

Order Code	Mftrs. List No.	Order Code	Mftrs. List No.
132-9651	32.21.7.005.2000	194-7875	32.21.7.012.2300
132-9652	32.21.7.012.2000	194-7876	32.21.7.024.2300
132-9653	32.21.7.024.2000	194-7877	32.21.7.048.2300
194-7873	32.21.7.005.2300		

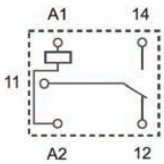
458021

COIL Volts	Ω	Order Code	Price Each 1+	10+	50+	100+	250+
SPDT							
5V	125	**132-9651**					
12V	720	**132-9652**					
24V	2.88k	**132-9653**					
SPST-NO							
5V	125	NEW **194-7873**					
12V	720	NEW **194-7875**					
24V	2.88k	NEW **194-7876**					
48V	11.52k	NEW **194-7877**					

10A Miniature PCB Relays

36 Series

NEW



- 1 Pole changeover contacts
- Miniature - "Sugar cube" package
- DC coil - 360 mW
- Wash tight: RT III
- Cadmium Free contact material

Contact arrangement	SPDT-CO	Coil consumption	360mW
Rated contact current/Max. peak current	10A / 15A	Operate/Release	9 / 3ms typical
Rated contact voltage	250V	Temperature range	-40 to 85°C

Order Code	Mftrs. List No.	Order Code	Mftrs. List No.
187-2937	36.11.9.012.4001	187-2939	36.11.9.005.4001
187-2938	36.11.9.024.4001	187-2940	36.11.9.048.4001

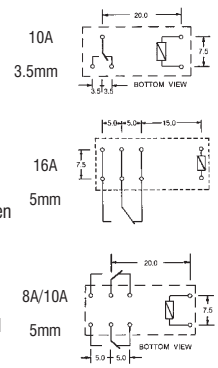
548646

COIL Volts	Ω	Order Code	Price Each 1+	10+	25+	50+	100+
12	400	**187-2937**					
24	1.6k	**187-2938**					
5	70	**187-2939**					
48	6.4k	**187-2940**					

8A/10A/16A Vertical - 40 Series

DC type AC type Latching

L=29.0, W=12.4, H=25.0 PCB hol dia.=1.5



- SPCO and DPCO contacts
- Low cost power relays with a 4kV-8mm isolation between coil and contacts
- Flux proof terminals facilitate flow soldering
- Fluxproof **IP40/RTII**
- **UL** Recognised

VDE, BEAB, CSA, SEV, NF, IMQ, SEMKO, DEMKO approved (**VDE, CSA,** & **IMQ,** 44.62 Series)

Contact arrangment	SPCO/DPCO		
Contact rating	SPCO 10A @ 240V ac,30V dcV	Coil consumption dc	650/500 mW Std./Sensitive
	16A @ 240V ac,30V dcV	Coil consumption ac	500mW1.2VA
	DPCO @ 240V ac,30V dc	Operate/Release	10ms/7ms
Contact material	10A @ 240V ac,30V dc	Coil operating range	80 - 150%
	10A/8A Silver Nickel	Temperature range	-20°C to + 70°C°C°C
	16A Silver Cadmium Oxide		

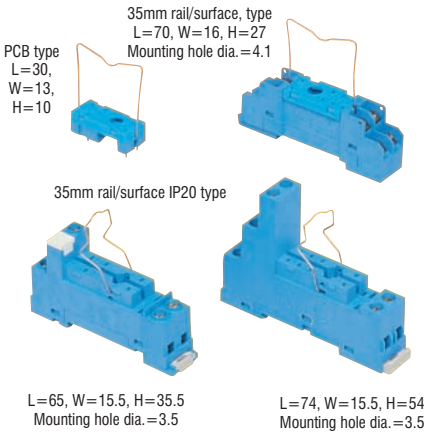
222076

COIL Volts	Ω	Order Code	Price Each 1+	25+	100+	250+	500+
SPCO, 10A - 40.31 Series							
24V ac	320	**116-9152**					
110V ac	6.9	**116-9155**					
240V ac	31.5	**116-9156**					
6V dc	55	**116-9157**					
12V dc	300	**116-9158**					
24V dc	1.2	**116-9159**					
48V dc	3.5	**116-9160**					

RoHS ● Compliant ▲ Non-compliant

COIL Volts	Ω	Order Code	Price Each 1+	25+	100+	250+	500+
SPCO, 16A - 40.61 Series							
24V ac	320	**116-9161●**					
110V ac	6.9	**116-9162●**					
240V ac	31.5	**116-9163●**					
6V dc	55	**116-9164●**					
12V dc	300	**116-9165●**					
24V dc	1.2	**116-9167●**					
48V dc	3.5	**116-9168●**					
DPCO, 8A - 40.52 Series							
24V ac	320	**116-9169●**					
110V ac	6.9	**116-9170●**					
240V ac	31.5	**116-9171●**					
6V dc	55	**116-9172●**					
12V dc	300	**116-9173●**					
24V dc	1.2	**116-9174●**					
48V dc	3.5	**116-9175●**					
DPCO, 10A - 44.62 Series							
6V dc	75	**116-9303●**					
12V dc	300	**116-9304●**					
24V dc	1.2	**116-9305●**					

35mm Rail Bases and Clips



- Sockets and clips for use with 3.5mm and 5mm pin spacing 'Vertical' style PCB power relays, including Finder 40 series
- PCB sockets are **UL** Recognised and **CSA** (10A) approved
- DIN rail/surface sockets Order Codes 116-9176 and 116-9177 are **UL** Recognised and **CSA** (5A) approved
- DIN rail/surface sockets Order Codes 116-9216 and 116-9230 have touchproof terminals to **IP20**. Both will accept an additional module to give the facilities of protection diode and/or LED indication, 116-9216 has an identification tab. Both are approved to **CSA, VL &FI.**

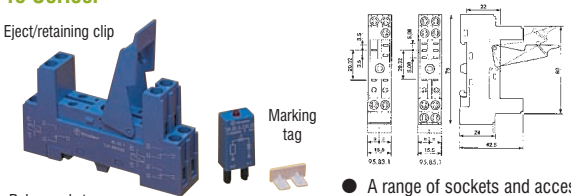
Load Rating 116-9217, 116-9518, 116-9176, 116-9177: 10A 250V ac (5A max. each circuit)10A250V
116-9216, 116-9230: 10A 250V ac10A250V
Housing Blue noryl, **UL94V-08**BlueUL94V-08

Mftrs. List No. 95.13.2SMA=116-9217 Mftrs. List No. 95.45SMA=116-9177
95.15.2SMA=116-9218 95.63SMA=116-9216
95.43SMA=116-9176 95.75SMA=116-9230

222075

	Order Code	Price Each 1+	25+	100+	250+	500+
3.5mm, PCB	**116-9217●**					
5mm, PCB	**116-9218●**					
3.5mm 35mm rail/surface	**116-9176●**					
5mm, 35mm rail/surface	**116-9177●**					
3.5mm 35mm rail/surface, IP20	**116-9216●**					
5mm, 35mm rail/surface, IP20	**116-9230●**					

35mm Rail Mount Socket & Accessories - 40 Series.



- A range of sockets and accessories to complement the 40 Series relays

Mftrs. List Nos: 95.83.3SXA =116-9369 095.80.3 =913-7696 99.80.0.230.50 =116-9335
95.85.3SMA =116-9370 99.80.3.000.00 =116-9333 99.80.9.024.99 =116-9302
095.91.3 =116-9371 99.80.0.230.08 =116-9334

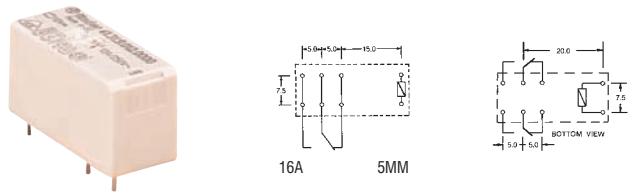
Load Rating 10A @ 250V ac10250 Housing Blue PA66

207023

	Sockets	Order Code	Price Each 1+	25+	100+
95.83.3SXA	3.5mm socket for 4031 relay	**116-9369●**			
95.85.3SMA	5mm socket for 4052 4061 relay	**116-9370●**			
	Order Multiple = 5		1+	25+	100+
095.91.3	Eject retaining clip for sockets	**116-9371●**			
095.80.3	Marking tag for sockets	**913-7696●**			
Order Multiple =			1+	25+	100+
Diode module 6-220VDC		**116-9333●**			
LED module 110-230V AC/DC		**116-9335●**			
Diode, LED module 6-24VDC		**116-9302●**			
8 Way Jumper Link		**132-9739●**			

8A/12A/16A Low Profile

41 Series



H=15.7 W=12.7 D=29

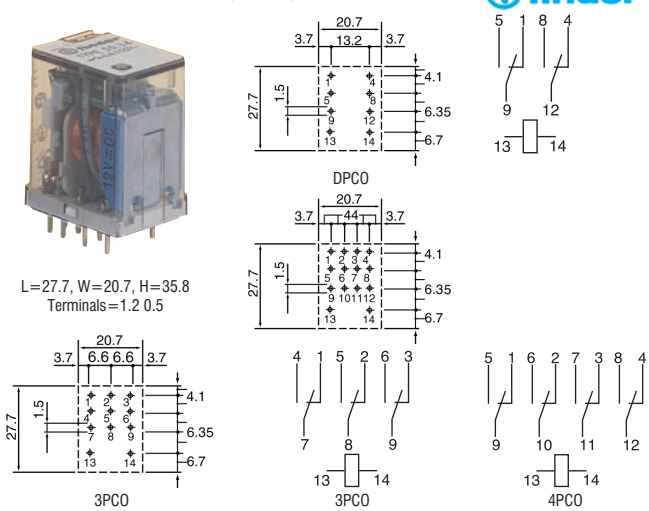
- Low profile only 15.7mm high
- SPCO and DPCO options
- 8mm between coil and contacts in accordance with **VDE0700**
- **CSA** and **VDE** approved, **UL** Recognised

Contact arrangement	SPCO/DPCO	Contact Material	AgNi
Contact RatingSPCO	SPCO 12A @ 240Vac,30Vdc	Coil Operating Range	75 - 150%
SPCO	SPCO16A @ 240Vac,30Vdc	Operate/ Release	5ms/4ms
	DPCO 8A @ 240Vac, 30Vdc	Temperature Range	-40°C to +85°C
Coil consumption	400mW		

227661

COIL Volts	Ω	Order Code	Price Each 1+	25+	100+	250+	500+
SPCO, 12A - 41.31 Series							
6V	90	**116-9306●**					
12V	360	**116-9307●**					
24V	1440	**116-9308●**					
SPCO, 16A - 41.61 Series							
12V	360	**116-9309●**					
24V	1440	**116-9310●**					
DPCO, 8A - 41.52 Series							
12V	360	**116-9311●**					
24V	1440	**116-9313●**					
Accessories - Sockets							
41.31 Series		**116-9217●**					
41.61 and 41.52 Series		**116-9218●**					

7A/10A Minature - 5512, 5513, 5514 Series



- Direct PCB mounting version of the Finder 55 Series miniature power relay
- Approved to **VDE, CSA, SEMKO, SEV** and **IMQ**,**UL** Recognised

Contact arrangment	DPCO/3PCO/4PCO	Contact material	Silver Nickel
Contact rating	DPCO and 3PCO: 10A @ 250V ac	Coil consumption	1.5VA, 1W
	4PCO: 7A @ 250V ac	Coil operating range	80 - 110%

Mftrs. List No.

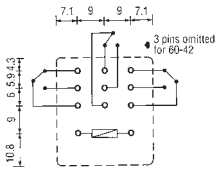
55.12.8.230.0000=	116-9249	55.13.9.012.0000=	116-9253	55.14.8.230.0000=	116-9255
55.12.9.012.0000=	116-9250	55.13.9.024.0000=	116-9254	55.14.9.012.0000=	116-9256
55.12.9.024.0000=	116-9251	55.14.8.024 0000=	132-9738	55.14.9.024.0000=	116-9258
55.13.8.230.0000=	116-9252				

7A/10A Minature - 5512, 5513, 5514 Series - continued

207096

COIL Volts	Ω	Order Code	Price Each 1+	25+	100+	250+	500+
DPCO, 10A - 5512 Series							
230V ac	-1.7	**116-9249●**					
12V dc	140	**116-9250●**					
24V dc	600	**116-9251●**					
3PCO, 10A - 5513 Series							
230V ac	-1.7	**116-9252●**					
12V dc	140	**116-9253●**					
24V dc	600	**116-9254●**					
4PCO, 7A - 5514 Series							
24V	-	**132-9738●**					
230V ac	-1.7	**116-9255●**					
12V dc	140	**116-9256●**					
24V dc	600	**116-9258●**					

10A - 60 42/43 Series



L=36.0, W=32.2, H=43.0
PCB hole dia=1.5

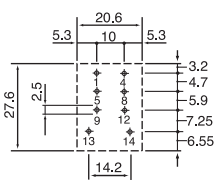
VDE, CSA, BEAB, IMQ, DEMKO (60.43 series), RINA, and **SEV** approved, **UL** Recognised

Contact arrangment	DPCO/3PCO	Max. Switching Voltage	400VACV dc
Contact rating	10A @ 250V ac/30Vdc30V	Dielectric strength	2000V rms
Switching capacity	2500VA	Operate/Release	15ms/15ms
Coil consumption	2.2VA ac, 1.3W dc	Coil operating range	80 - 110%
Max. Inrush current	20A	Temperature range	-40°C to +70°C°C°C

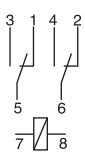
207117

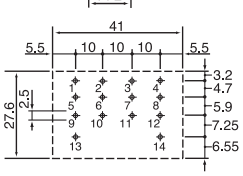
COIL Volts	Ω	Order Code	Price Each 1+	25+	100+	250+	500+
DPCO - 60 42 Series							
12V dc	110	**116-9181●**					
24V dc	445	**116-9182●**					
3PCO - 60 43 Series							
230V ac	7.25	**116-9183●**					
12V dc	110	**116-9184●**					
24V dc	445	**116-9185●**					

12A - 5642, 5644 Series

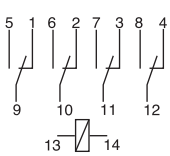


DPCO
L=27.6, W=20.6, H=35.5
Terminals=2 x 0.5





4PCO
L=27.6, W=41, H=35.5
Terminals=2 x 0.5



- Direct PCB mounting version of the Finder 56 Series power relay
- **UL** Recognised
- Approvals include **VDE, CSA, IMQ, LCIE** and **SEV**

Contact arrangement	DPCO/4PCO	Coil Consumption	DPCO 1.5VA, 1W
Contact Rating	12A@250Vac		4PCO 2VA, 1.3W
Contact Material	Silver Nickel	Coil Operating range	80-110%

Mftrs. List No.

56.42.8.230.0000 = 116-9272 56.42.9.024.0000 = 116-9274 56.44.9.024.0000 = 116-9276
56.42.9.012.0000 = 116-9273 56.44.9.012.0000 = 116-9275

207101

COIL Volts	Ω	Order Code	Price Each 1+	25+	100+	250+	500+
DPCO-5642 Series							
230V ac	17	**116-9272●**					
12V dc	140	**116-9273●**					
24V dc	600	**116-9274●**					
4PCO - 5644 Series							
12V dc	123	**116-9275●**					
24V dc	490	**116-9276●**					

16A Modular Latching-20 Series

- A range of latching relays with EN 50022, 17.5mm wide housing
- Mechanical indicator for each contact
- AC and DC operation
- 1 hour rated coils
- Offset terminals to facilitate wiring
- **IMQ, UR, NF, Lloyds Reg.** approved

H = 84, W = 17.4, D = 58.4mm

These relays have just one coil. Pulse to operate and latch, the next pulse will unlatch. They have a manual button on the unit; push to change the contact state then push again to reset the contacts.

Contact rating	16A @ 240V ac	Dielectric strength:	
Max. inrush current	30A	Coil to contact	3.5kV
Rated voltage	250V	Contact to contact	2kV
Max. Switch voltage	400V400V	Coil operating range ac/dc	85% - 110% / 90 - 110%
Temperature range	-40°C to +40°C		

207024

COIL Volts	Ω	Mftrs. List No.	Order Code	Price Each 1+	25+	100+	250+
SPNO - 20.21 Series							
24V ac	27	20.21.8.024.4000	**176-5063●**				
110V ac	590	20.21.8.110.4000	**176-5064●**				
12V dc	27	20.21.9.012.4000	**176-5065●**				
24V dc	105	20.21.9.024.4000	**176-5066●**				
DPNO - 20.22 Series							
110V ac	590	20.22.8.110.4000	**176-5067●**				
230V ac	2.5K	20.22.8.230.0000	**116-9288●**				
12V dc	27	20.22.9.012.0000	**116-9289●**				
24V dc	105	20.22.9.024.0000	**116-9290●**				
SPNO / SPNC - 20.23 Series							
230V ac	2.5K	20.23.8.230.0000	**116-9291●**				
12V dc	17	20.23.9.012.0000	**132-9744●**				
24V dc	105	20.23.9.024.0000	**132-9745●**				

Modular Contactors

22 Series

- Single and double pole versions 17.5mm wide
- Four pole versions 35mm wide
- Manual test push button
- AC or DC coil and AC/DC coil versions
- Rising clamp terminals
- **IP20** rating

H = 84, D = 58.4mm (20A) D = 60.8mm (25A)

207025

COIL Volts	Contact Current	Mftrs. List No.	Order Code	Price Each 1+	25+	100+	250+
SPNO - 22.21 Series							
110V ac	20A	22.21.8.110.4000	**176-5070●**				
12V dc	20A	22.21.9.012.4000	**176-5071●**				
DPNO - 22.22 Series							
24V ac	20A	22.22.8.024.4000	**116-9292●**				
230V ac	20A	22.22.8.230.4000	**116-9295●**				
12V dc	20A	22.22.9.012.4000	**116-9296●**				
24V dc	20A	22.22.9.024.4000	**116-9297●**				
SPNO / SPNC - 22.23 Series							
24V ac	20A	22.23.8.024.4000	**176-5072●**				
110V ac	20A	22.23.8.110.4000	**176-5074●**				
230V ac	20A	22.23.8.230.4000	**116-9298●**				
12V dc	20A	22.23.9.012.4000	**116-9299●**				
24V dc	20A	22.23.9.024.4000	**116-9301●**				

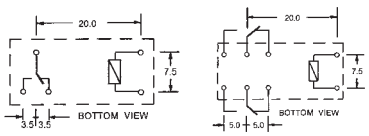
RoHS ● Compliant ▲ Non-compliant

COIL Volts	Contact Current	Mftrs. List No.	Order Code	Price Each 1+	25+	100+	250+
2 NO - 22.32 Series							
12V ac/dc	25A	22.32.0.012.4320	NEW **188-9089**				
24V ac/dc	25A	22.32.0.024.4320	NEW **188-9090**				
48V ac/dc	25A	22.32.0.048.4320	NEW **188-9091**				
120V ac/dc	25A	22.32.0.120.4320	NEW **188-9092**				
230V ac/dc	25A	22.32.0.230.4320	NEW **188-9093**				
1 NO + 1 NC - 22.32 Series							
12V ac/dc	25A	22.32.0.012.4520	NEW **188-9094**				
24V ac/dc	25A	22.32.0.024.4520	NEW **188-9095**				
48V ac/dc	25A	22.32.0.048.4520	NEW **188-9097**				
120V ac/dc	25A	22.32.0.120.4520	NEW **188-9098**				
230V ac/dc	25A	22.32.0.230.4520	NEW **188-9099**				
2 NC - 22.32 Series							
12V ac/dc	25A	22.32.0.012.4420	NEW **188-9100**				
24V ac/dc	25A	22.32.0.024.4420	NEW **188-9101**				
48V ac/dc	25A	22.32.0.048.4420	NEW **188-9103**				
120V ac/dc	25A	22.32.0.120.4420	NEW **188-9104**				
230V ac/dc	25A	22.32.0.230.4420	NEW **188-9105**				
4 NO - 22.34 Series							
12V ac/dc	25A	22.34.0.012.4320	NEW **188-9106**				
24V ac/dc	25A	22.34.0.024.4320	NEW **188-9107**				
48V ac/dc	25A	22.34.0.048.4320	NEW **188-9108**				
120V ac/dc	25A	22.34.0.120.4320	NEW **188-9109**				
230V ac/dc	25A	22.34.0.230.4320	NEW **188-9110**				
2 NO + 2 NC - 22.34 Series							
12V ac/dc	25A	22.34.0.012.4620	NEW **188-9111**				
24V ac/dc	25A	22.34.0.024.4620	NEW **188-9112**				
48V ac/dc	25A	22.34.0.048.4620	NEW **188-9113**				
120V ac/dc	25A	22.34.0.120.4620	NEW **188-9115**				
230V ac/dc	25A	22.34.0.230.4620	NEW **188-9116**				
3 NO + 1 NC - 22.32 Series							
12V ac/dc	25A	22.34.0.012.4720	NEW **188-9117**				
24V ac/dc	25A	22.34.0.024.4720	NEW **188-9118**				
48V ac/dc	25A	22.34.0.048.4720	NEW **188-9119**				
120V ac/dc	25A	22.34.0.120.4720	NEW **188-9120**				
230V ac/dc	25A	22.34.0.230.4720	NEW **188-9121**				

Power Relays - IMO

8A/12A Low Profile

SRRHN Series



12A 3.5mm 8A 5mm

- SPCO or DPCO contacts
- VDE 4kV isolation
- Fully sealed
- UL Recognised

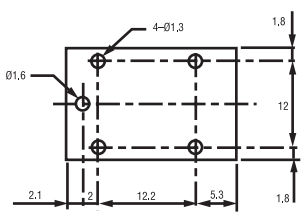
Contact arrangement	SPCO/DPCO	Coil Consumption	400mW
Contact Rating	SPCO, 12A @ 440V ac DPCO, 8A @ 440V ac	Operate/ Release Time	15ms/8ms
Switching Capacity	SPCO, 3000VA/360W DPCO, 2000VA/240W	Coil Operating Range	80% to 130%
Contact Material	Silver Tin oxide	Temperature Range	-40°C to 85°C

622425

COIL Volts	Ω	Mftrs. List No.	Order Code	Price Each 1+	50+	100+	250+	500+
SPCO, 12A - SRRHN-1C Series								
5V	62	SRRHN-1CN-SL-5VDC	**109-4011**					
12V	360	SRRHN-1CN-SL-12VDC	**109-4012**					
24V	1.44	SRRHN-1CN-SL-24VDC	**109-4013**					
SPCO, 8A - SRRHN-2C Series								
5V	62	SRRHN-2CN-SL-5VDC	**109-4015**					
12V	360	SRRHN-2CN-SL-12VDC	**109-4016**					
24V	1.44	SRRHN-2CN-SL-24VDC	**109-4017**					

10A, Miniature Power

SRM Series



BOTTOM VIEW

- Low profile
- Light weight
- Fully sealed
- UL Recognised, VDE approved

Contact arrangment	SPCO	Operate/Release time	10ms/5ms
Contact rating	10A @ 250V ac	Contact Material	Silver Tin Oxide
Coil consumption	360mW	Coil operating range	75% - 130%
Switching capacity	2770VA/210W	Temperature range	-40°C to +85°C

207065

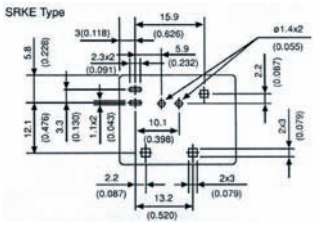
COIL Volts	Ω	Order Code	Price Each 1+	50+	100+	250+	500+
SPCO - 10A, SRM Series							
5V dc	70	**109-4018**					
12V dc	400	**109-4019**					
24V dc	1.6	**109-4020**					

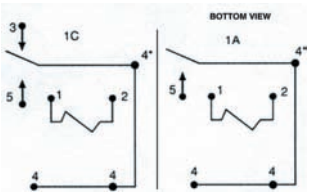
PCB Automotive Power

SPNO and SPCO 40A

- 40A, 14V dc rated
- Fully sealed

H = 22.3, W = 26.5, D = 22mm





Contact arrangement	SPNO/SPCO	Time, operate/release	5ms/3ms
Current, switching/carry max	SPNO 45A SPDT 45A(NO) SPCO 30A (NC)	Resistance, contact Resistance, insulation Temperature, operating	100mohm -40°C to 125°C
Voltage, switching max	30Vdc	Power, consumption (@rated load)	1.6W
Power, switching max	630W		

Order Code	Mftrs. List No.	Coil Resistance (Ω's)
109-4082	SRKE-1AT-SL-12VDC	90
109-4083	SRKE-1AT-SL-24VDC	362
109-4084	SRKE-1CT-SL-12VDC	90
109-4085	SRKE-1CT-SL-24VDC	362

246125

COIL Volts	Order Code	Price Each 1+	50+	100+	250+	500+
SPNO Type						
12V dc	**109-4082**					
24V dc	**109-4083**					
SPCO Type						
12V dc	**109-4084**					
24V dc	**109-4085**					

Power Relays - Omron

5A Miniature

G5NB-E Series - 10kV Withstand Voltage

- SPST contacts
- High sensitivity (200mW)
- Clearance/creepage distance of 7.1/7.2mm
- Tracking resistance CTI>250
- Approved to CSA & VDE, UL Recognised

Contact arrangement	SPST
Contact rating (Resistive) - AC	5A @ 250V
Contact rating (Resistive) - DC	3A @ 30V
Switching capacity	1250VA, 90W
Coil consumption (nom.)	200mW
Time - Operate/release	10ms/10ms
Dielectric strength - Coil and contacts	4000VAC
Temperature range	-40 to 85°C

H = 15.3, W = 20.5, D = 7.2mm

Mftrs.List No.		Order Code	Mftrs.List No.		Order Code
G5NB-1A-E12DC	=	133-3632	G5NB-1A-E24DC	=	133-3633

459017

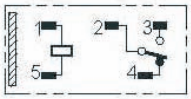
COIL Volts	Ω	Order Code	Price Each 1+	+	+	+	+
12V	720	**133-3632**					
24V	2.88	**133-3633**					

SPDT - 5A

G5SB Series

Contact arrangment	SPDT
Mechanical life	5,000,000 operations
Electrical life	10000operations: 5A (NO) / 3A (NC) @ 30V dc resistive load
Coil power	400mW
Contact resistance (initial)	100mohm max.
Rated carry current	5A (NO) / 3A (NC)
Max. switched voltage	250VAC, 30VDC
Max. switched current	5A (NO) / 3A (NC)
Operating temperature	-40 to 70°C

H = 15.8, W = 20.3, D = 10.3mm



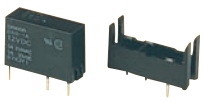
(No coil polarity)

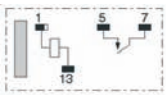
Order Code	Mftrs. List No.
991-9031	G5SB-14 5DC
991-9015	G5SB-14 12DC
991-9023	G5SB-14 24DC

414192

COIL Volts	Ω	Order Code	Price Each 1+	10+	25+	50+
5V	63	**991-9031**				
12V	360	**991-9015**				
24V	1.44	**991-9023**				

5A Subminiature - G6D Series





L=17.5, W=6.5, H=12.5
Socket L=19.7, W=6.9, H=6.0
(above PCB)

- SPNO contacts
- Dielectric strength of 3KV
- Low power consumption, 200mW
- Fully sealed
- **UL** Recognised and **CSA** approved

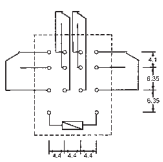
Mftrs.List No.	Mftrs.TypRéf. Fab.				
	P6D-04P	= 994-9631	G6D-1A-ASI 12DC	= 981-2679
	G6D-1A-ASI 5DC	= 981-2660	G6D-1A-ASI 24DC	= 981-2687

Contact arrangement	SPNO	Operate/release	10ms/5ms
Contact rating	5A @ 250V ac, 30V dc	Coil operating range	70 - 130%
Switching capacity	1250VA, 150W	Temperature range	-25°C to + 70°C
Coil consumption (nom.)	200mW		

206979

COIL Volts	Ω	Order Code	Price Each 1+	+	+	+	+
SPNO - G6D Series							
5V	125	**981-2660**					
12V	720	**981-2679**					
24V	2.88	**981-2687**					
PCB Socket		**994-9631**					

5A Miniature - MY4-02 Series



- Direct PCB mounting version of the Omron MY4 power relay
- **UL** Recognised

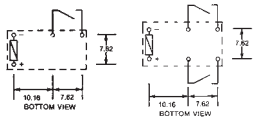
L = 28.0, W =21.5, H 35.5

Contact arrangment	4PCO	Operate/Release	20ms max
Contact rating	5A @ 240V ac, 30V dc (resistive)	Coil operating range	80 - 110%
Contact material	Silver, Gold plated	Temperature range	-25°C to +70°C°C°C
Coil consumption	0.9W1.2VA ac 1.2VA		

207106

COIL Volts	Ω	Order Code	Price Each 1+	20+	100+	250+	500+
4PCO - MY4-02 Series							
12V dc	160	**134-0945**					
24V dc	650	**134-0946**					
110V ac	4.43	**134-0947**					
240V ac	18.8	**134-0948**					

5A/8A Subminiature - G6B Series



G6B-2214P
L=20, W=11, H=11

G6B-1114P
L=20, W=10, H=10
G6B-1174P
L=20, W=10, H=12.5

P6B-04P
L=24, W=10, H=7
(above PCB)

- SPNO and DPNO contacts
- Fully sealed
- **UL** Recognised and **CSA** approved
- Permanent magnet construction, requires correct coil polarity
- PCB socket available for SPNO version

Contact arrangement	SPNO	SPNO	DPNO
Contact rating (resistive)	5A @ 250V ac, 30V dc	5A @ 250V ac, 30V dc	8A @ 250V ac, 30V dc
Switching capacity (max.)	1250VA, 150W	1250VA, 150W	2000VA, 240W
Coil consumption (normal)	200mW	300mW	200mW
Operate/Release (max.)	10ms	10ms	10ms
Coil opereating range (@23°C)	80 - 110%	80 - 110%	70 - 130%
Temperature range	-25°C to +70°C	-25°C to +70°C	-25°C to +70°C

Mftrs. List No. P6B-04P=994-9259 (Single Pole Socket)

207108

COIL Volts	Ω	Order Code	Price Each 1+	+	+	+	+
SPNO, 5A - G6B-1114P Series							
5V	125	**994-9089**					
12V	720	**994-9097**					
12V	720	NEW **207-6351**					
24V	2.88kohm	**124-3011**					
SPNO, 8A - G6B-1174P Series							
5V	125	**994-9542**					
12V	720	**994-9550**					
24V	2.88kohm	**994-9569**					
DPNO, 5A - G6B-2214P Series							
5V	83	**994-9224**					
12V	480	**994-9232**					
24V	1.92kohm	**994-9240**					
SPNO, 5A Dual Coil Latching - G6BK-1114P Series							
5V	89.2	NEW **207-6355**					
12V	515	NEW **207-6352**					
24V	2.06kohm	NEW **207-6353**					
Relay Sockets							
Single Pole Relay		**994-9259**					
G6B-2 Relays		**118-1039**					

SPST-NO & SPDT 10A

G5Q Series

- Compact, High Isolation
- Up to 10A switching on the NO contacts
- Withstand impulse voltage (between coil and contacts) 8000V
- Low coil consumption
- **UL** class F coil insulation
- **UL** recognised, **CSA** and **VDE** approved

H = 15.8, W = 20.3, D = 10.3mm

Contact arrangment	SPDT, SPST-NO	Max. switched voltage	277V, 30V
Mechanical life	10,000,000 Operations	Max. switched current	10A
Electrical life	50,000 operations: 10A (NO) @ 125V ac	Rated load	10A @ 125V ac [SPDT (NO) & SPST-NO] 5A @ 30V dc [SPDT (NO) & SPST-NO]
Coil power	400mW		
Contact resistance (initial)	100mohm max.		
Rated carry current	10A	Operating temperature	-40 to 105°C

Order Code	Mftrs. List No.	Rated Current	Order Code	Mftrs. List No.	Rated Current
118-1041	G5Q-1EU 5DC	80mA	444-6460	G5Q-14EU 24DC	16.7mA
444-6434	G5Q-1EU 12DC	33.3mA	118-1043	G5Q-1AEU 5DC	40mA
207-6392	G5Q-1 12DC	33.3mA	444-6471	G5Q-1AEU 12DC	16.7mA
444-6446	G5Q-1EU 24DC	16.7mA	444-6483	G5Q-1AEU 24DC	8.3mA
207-6393	G5Q-1 24DC	16.7mA	179-8617	G5Q-1A4-EU 12DC	16.7mA
118-1042	G5Q-14EU 5DC	80mA	444-6501	G5Q-1A4EU 24DC	8.3mA
444-6458	G5Q-14EU 12DC	33.3mA			

311846

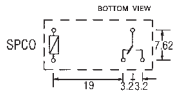
COIL Volts	Ω	Order Code	Price Each 1+	+	+	+	+
SPDT - Vented							
5V	63	**118-1041**					
12V	360	**444-6434**					
12V	360	NEW **207-6392**					
24V	1.44k	**444-6446**					
24V	1.44k	NEW **207-6393**					
SPDT - Sealed							
5V	63	**118-1042**					
12V	360	**444-6458**					
24V	1.44k	**444-6460**					

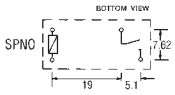
RoHS Compliant / Non-compliant

COIL Volts	Ω	Order Code	Price Each 1+	+	+	+	+
SPST - NO - Vented							
5V	125	**118-1043**					
12V	720	**444-6471**					
24V	2.88k	**444-6483**					
SPST - NO - Sealed							
12V	720	**179-8617**					
24V	2.88k	**444-6501**					

8A Low Profile - G6RN Series

OMRON





G6RN-1 series: L=30, W=10, H=14.5
G6RN-1A series: L=28.5, W=10, H=14.5

- SPCO and SPNO contacts
- 4kV isolation and 8mm creepage/ clearance
- Low power consumption, 220mW
- Fully sealed
- **VDE, IEC** and **CENELEC** approved

Contact arrangment	SPCO/SPNO	Coil consumption	220mW
Contact rating	8A @ 240V ac	Operate/Release	15ms/5ms
Contact material	AgNi + Gold plating	Coil operating range	70 - 110%
Switching capacity	2000VA	Temperature range	-40°C to +85°C

206987

COIL Volts	Ω	Order Code	Price Each 1+	20+	100+	250+	500+
SPCO - G6RN1 Series							
5V dc	114	**994-9933**					
12V dc	655	**994-9941**					
24V dc	2.62	**994-9950**					
SPNO - G6RN-1A Series							
5V dc	114	**994-9968**					
12V dc	655	**994-9976**					
24V dc	2.62	**994-9984**					

10A - Low Profile

OMRON

G6RL Series

- Low profile - 12.3mm
- Max. switching capacity 2500VA (NO)
- Dielectric strength 5 kV
- Clearance and creepage distance 10mm
- **VDE** Approved, **UL** Recognised

H = 12.3, W = 28.5, D = 10mm

Contact arrangment	SPDT/SPST
Contact (carry) ratings	10A @ 250VAC, 5A @ 24VDC
Contact material	AgNi
Switching capacity	2500VA
Coil consumption	220mW
Operate/Release	10ms/5ms
Coil operating range	10 - 70%
Temperature range	-40°C to +85°C

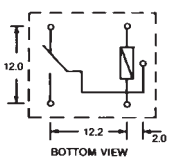
485376

COIL Volts	Ω	Mftrs. List No.	Order Code	Price Each 1+	20+	100+	250+
SPDT - G6RL-1 Series							
5V	113.6	G6RL-1 5DC	**145-5495**				
12V	654.5	G6RL-1 12DC	**145-5496**				
24V	2.618	G6RL-1 24DC	**145-5498**				

10A and 16A - Miniature

OMRON

G5LE Series



- SPCO contacts
- High impulse withstand voltage of 4.5kV coil/contacts
- Fully sealed or flux sealed construction
- **UL** Recognised and **CSA** approved

L = 21.6, W = 15.6, H = 18.5mm
PCB hole dia.=1.3mm

Contact arrangment	SPDT	Coil consumption	400mW
Contact rating	Standard 10A @ 120V / 30V High capacity 16A @ 250V	Operate/Release	10ms/5ms
		Temperature range	-40°C to +85°C

Order Code	Mftrs. List No.	Order Code	Mftrs. List No.
994-9887	G5LE-1 5DC	207-6255	G5LE-14 6DC
207-6254	G5LE-1 DC6	207-6256	G5LE-14 DC9
994-9895	G5LE-1 12DC	994-9798	G5LE-14 12DC
994-9909	G5LE-1 24DC	994-9801	G5LE-14 24DC
183-2577	G5LE-1VD 12DC	207-6260	G5LE-1A 5DC
183-2579	G5LE-1VD 24DC	207-6257	G5LE-1A 12DC
179-8616	G5LE-1-36 5DC	207-6258	G5LE-1A 24DC
179-8614	G5LE-1-36 12DC	207-6259	G5LE-1A 48DC
179-8615	G5LE-1-36 24DC	207-6264	G5LE-1A4 5DC
207-6266	G5LE-1A4 DC6	133-3640	G5LE-1E 5DC
207-6261	G5LE-1A4 12DC	133-3642	G5LE-1E 12DC
207-6262	G5LE-1A4 24DC	133-3643	G5LE-1E 24DC
207-6265	G5LE-1A4 DC48		

206955

COIL Volts	Ω	Order Code	Price Each 1+	20+	100+	250+	500+
Flux protection, SPDT, 10A , G5LE-1 Series							
5V	63	**994-9887**					
6V		NEW **207-6254**					
12V	360	**994-9895**					
24V	1.44kohm	**994-9909**					
Flux protection, SPDT, 10A , G5LE-1-VD Series (VDE Approved)							
12V	360	**183-2577**					
24V	1.44kohm	**183-2579**					
Flux protection, SPDT, 10A , G5LE-1-36 Series							
5V	70	**179-8616**					
12V	400	**179-8614**					
Fully sealed, SPDT, 10A, G5LE-14 Series							
6V		NEW **207-6255**					
9V	200	NEW **207-6256**					
12V	360	**994-9798**					
24V	1.44kohm	**994-9801**					
Flux Protection, SPCO, 10A, G5LE-1A Series							
5V	63	NEW **207-6260**					
12V	360	NEW **207-6257**					
24V	1.44	NEW **207-6258**					
48V	5.76	NEW **207-6259**					
Fully sealed, SPCO, 10A, G5LE-1A4 Series							
5V	63	NEW **207-6264**					
6V		NEW **207-6266**					
12V	360	NEW **207-6261**					
24V	1.44	NEW **207-6262**					
48V	5.76	NEW **207-6265**					
Flux protection, SPCO, 16A , G5LE-1E Series							
5V	62.5	**133-3640**					
12V	360	**133-3642**					
24V	1.44ohm	**133-3643**					

15A Sub-Miniature - Flat

OMRON

G5CA Series

- SPNO contacts
- Power consumption 200mW
- 15A @ 110V ac/ 10A @ 30V dc switching capacity
- **UL** Recognised, **CSA** and **TUV** approved

H = 11, W = 22, D = 16mm

Contact arrangement	SPST	Operate/release	10ms/10ms
Contact rating (Resistive)	15A @ 250V ac, 125V dc	Coil operating range	10 - 75%
Switching capacity	2500VA, 300W	Temperature range	-25 to 70°C
Coil consumption (nom.)	200mW		

Mftrs.List No.		Order Code			
G5CA-1AE 5DC	=	125-7565	G5CA-1AE 12DC	=	125-7566
			G5CA-1AE 24DC	=	125-7567

443908

COIL Volts	Ω	Order Code	Price Each 1+	10+	25+	50+	+
5V	125	**125-7565**					
12V	720	**125-7566**					
24V	2.88	**125-7567**					

7A/10A Low Profile - G6 Series

OMRON

- SPNO and SPNO+SPNC contacts
- Permanent magnet construction correct coil polarity must be observed
- **UL** Recognised, **CSA** and **SEV** approved

Contact arrangment	SPNO/SPNO	Coil consumption	200mW
Contact rating (resis)	SPNO: 10A @ 240V ac SPNO: 10A @ 240V ac	Operate/Release	10ms10ms
		Coil operating range	70 - 130%
Contact material	Ag Alloy	Temperature range	-10°C to +70°C

7A/10A Low Profile - - continued

G6 Series - continued

Sealed Construction

COIL Volts	Ω	Order Code	Price Each 1+	20+	100+	250+
Single Coil						
SPNO - G6C-1114 Series						
5V dc	125	**207-6439**				
5V dc	125	**207-6440**				
SPNO + SPNC - G6C-2114P Series						
5V dc	125	**207-6441**				
12V dc	720	**207-6442**				
24V dc	2.88kohm	**207-6443**				
Single Coil Latching						
SPNO - G6CU-1114P Series						
24V dc	2.88	NEW **207-6450**				
SPNO + SPNC - G6CU-2114P Series						
5V dc	125	NEW **207-6455**				
12V dc	720	NEW **207-6456**				
24V dc	2.88kohm	NEW **207-6454**				
Double Coil Latching						
SPNO - G6CK-1114P Series						
5V dc	89.3	**207-6447**				
12V dc	514	**207-6444**				
24V dc	2.056kohm	**207-6446**				
SPNO + SPNC - G6CK-2114P Series						
12V dc	514	**207-6448**				
24V dc	2.056kohm	**207-6449**				

207113

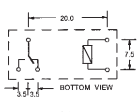
Semi Sealed Construction

COIL Volts	Ω	Order Code	Price Each 1+	20+	100+	250+
Single Coil						
SPNO - G6C-1117P Series						
12V dc	720	**994-9038**				
24V dc	2.88kohm	**994-9046**				
SPNO + SPNC - G6C-2117P Series						
5V dc	125	**994-9054**				
12V dc	720	**994-9062**				
24V dc	2.88kohm	**994-9070**				
Single Coil Latching						
SPNO - G6CU-1117P Series						
5V dc	125	NEW **207-6453**				
12V dc	720	NEW **207-6451**				
24V dc	2.88kohm	NEW **207-6452**				
SPNO + SPNC - G6CU-2117P Series						
5V dc	125	NEW **207-6460**				
12V dc	720	NEW **207-6458**				
24V dc	2.88kohm	NEW **207-6459**				
Double Coil Latching						
SPNO - G6CK-1117P Series						
5V dc	89.3	**118-1027**				
SPNO + SPNC - G6CK-2117P Series						
12V dc	514	**118-1031**				
Accessories						
Socket - PCB G6C Relays		**133-1562**				
Socket - PCB G6CK Relays		**133-1563**				
Clip, Plastic for G6 Relay Bases		**133-1564**				

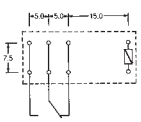
5A/10A/16A Vertical - G2R Series

OMRON

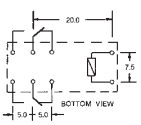
L=29.0, W=13.0, H=25.5



10A
3.5mm



16A
5mm



5A
5mm

- SPCO contacts
- Dielectric strength 5kV ac coil/contacts with creepage distance 8mm minimum
- Pin sealed base to facilitate flow soldering
- **UL** Recognised. **CSA** , **SEMKO** and **SEV** approved

Material, contacts	Silver	Operating Range, coil	70 - 110%
Consumption, coil	530mW	Temperature, operating	-40°C to +70°C
Operate/Release	15ms/15ms		

207116

COIL Volts	Ω	Order Code	Price Each 1+	+	+	+
SPCO, 10A - G2R-1 Series						
110V ac	4.6k	**994-9739**				
230V ac	26.85k	**994-9747**				
5V dc	47	**994-9372**				
12V dc	275	**124-3025**				
24V dc	1.1k	**994-9380**				
SPCO, 10A - G2R-1 Series						
5V dc	47	NEW **206-5709**				
SPST-NO, 10A - G2R-1A Series						
5V dc	47	NEW **206-5711**				
12V dc	275	NEW **206-5715**				
12V dc	275	NEW **183-2570**				
24V dc	1.1k	NEW **206-5716**				
24V dc	1.1k	NEW **183-2571**				
SPST-NO, 10A, Sealed- G2R-1A4 Series						
5V dc	47	NEW **206-5713**				
24V dc	1.1k	NEW **206-5712**				
SPCO, 16A - G2R-1E Series						
230V ac	26.85k	NEW **183-2572**				
5V dc	47	**994-9402**				
12V dc	275	**994-9410**				
24V dc	1.1k	**994-9429**				
48V dc	4.17k	**994-9437**				
SPCO, 16A, Sealed - G2R-1AE Series						
5V dc	47	NEW **206-5714**				
DPCO, 5A - G2R-2 Series						
24V acV	260	**994-9755**				
110V ac	4.6k	**994-9763**				
5V dc	47	**994-9445**				
6V dc	68	NEW **183-2573**				
12V dc	275	**994-9453**				
24V dc	1.1k	**994-9461**				
48V dc	4.17k	**994-9470**				
DPCO, 5A, Sealed - G2R-2A Series						
5V dc	47	NEW **206-8201**				
12V dc	275	NEW **206-8200**				
DPDT, 5A, Sealed - G2R-24 Series						
5V dc	47	NEW **206-8198**				
12V dc	275	NEW **206-8197**				

8A/12A/16A

OMRON

General purpose - Flux protection

H=15.7, W=12.7, D=29

H = 15.9, W = 12.6, D = 29.6(body) 40.3(O/A) mm

- SPCO and DCPO contacts
- Low profile 15.7mm in height
- High sensitivity 400mW coil
- Cadmium free contacts
- 10mm Creepage and clearance distance
- **UL** Recognised, **CSA** and **VDE** approved

Contact arrangment	SPCO/DPCO	Coil consumption	400mW
Contact rating	SPCO 12A @ 240V ac,30Vdc 16A @ 240V ac,30Vdc	Operate/Release	7ms/5ms
		Coil operating range	70 - 130% %
	DPCO 8A @ 240V ac,30Vdc	Temperature range	-40°C to 85°C°C°C
Contact material	AgNi		

207090

COIL Volts	Ω	Order Code	Price Each 1+	+	+	+	+
SPST-NO, 16A - G2RL-1A-E							
12V dc	360	NEW **183-2574**					
24V dc	1.44k	NEW **183-2575**					
SPDT, 12A - G2RL-1 Series							
5V dc	62.5	**995-0087**					
12V dc	360	**995-0095**					
24V dc	1.44k	**995-0109**					
SPDT, 16A - G2RL-1-E Series							
5V dc	62.5	**995-0125**					
12V dc	360	**995-0133**					
24V dc	1.44k	**995-0141**					
48V dc	5.358k	**995-0150**					
DPST-NO, 8A - G2RL-2 Series							
12V dc	360	NEW **183-2576**					
DPDT, 8A - G2RL-2 Series							
5V dc	62.5	**995-0168**					
24V dc	1.44k	**995-0184**					
48V dc	5.358k	**995-0192**					

RoHS ● Compliant ▲ Non-compliant

16A , Low Profile

G2RL Series

NEW OMRON

- Class B & F coil insulation available
- Low Profile (15.7mm height)
- **UL** Recognised

Dimensions (mm): H=15.7, W=29, D=12.7

Contact material	Ag Alloy (Cd free)	Operate/Release	15ms/5ms
Switching capacity	4000VA	Coil operating range	10 - 70%
Coil consumption	250mW	Temperature range	-40°C to +85°C

535724

Class B Insulation

Coil Volts	Ω	Order Code	Price Each 1+	10+	50+	100+	250+
Flux Protection, SPST-NO, 12A							
5V dc	62.5ohm	**206-5786**					
12V dc	360ohm	**206-5784**					
24V dc	1.44kohm	**206-5785**					
12V dc	360ohm	**206-5787**					
24V dc	1.44kohm	**206-5788**					
Fully Sealed, SPDT, 12A							
5V dc	62.5ohm	**206-5767**					
6V dc	90ohm	**206-5768**					
12V dc	360ohm	**206-5764**					
24V dc	1.44kohm	**206-5765**					
48V dc	5.358kohm	**206-5766**					
Fully Sealed, DPDT, 8A							
5V dc	62.5ohm	**206-5814**					
12V dc	360ohm	**206-5810**					
24V dc	1.44kohm	**206-5811**					
48V dc	5.358kohm	**206-5813**					
High Capacity, Flux Protection, SPST-NO, 16A							
5V dc	62.5ohm	**206-5793**					
High Capacity, Flux Protection, SPST-NO, 16A, QC Terminals							
12V dc	360ohm	**206-5797**					
24V dc	1.44kohm	**206-5798**					
48V dc	5.358kohm	**206-5799**					
High Capacity, Fully Sealed, SPDT, 16A							
5V dc	62.5ohm	**206-5778**					
12V dc	360ohm	**169-5877**					
12V dc	360ohm	**206-5775**					
48V dc	5.358kohm	**206-5777**					
24V dc	1.44kohm	**169-5878**					
24V dc	1.44kohm	**206-5776**					
High Capacity, Fully Sealed, SPST-NO, 16A							
5V dc	62.5ohm	**206-5791**					
24V dc	1.44kohm	**206-5789**					
48V dc	5.358kohm	**206-5790**					
High Sensitivity, Flux Protection, SPDT, 10A							
5V dc	100ohm	**206-5809**					
12V dc	576ohm	**206-5807**					
24V dc	2.304kohm	**206-5808**					
High Sensitivity, Flux Protection, SPST-NO, 10A							
5V dc	100ohm	**206-5796**					
24V dc	2.304kohm	**206-5795**					

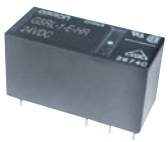
Class F Insulation

Coil Volts	Ω	Order Code	Price Each 1+	10+	50+	100+	250+
Flux Protection, SPST-NO, 12A							
48V dc	5.358kohm	**206-5792**					
Flux Protection, SPDT, 12A							
5V dc	62.5ohm	**206-5803**					
12V dc	360ohm	**206-5801**					
24V dc	1.44kohm	**206-5802**					
Flux Protection, DPDT, 8A							
12V dc	360ohm	**206-5817**					
48V dc	5.358kohm	**206-5818**					
Fully Sealed, SPDT, 12A							
5V dc	62.5ohm	**206-5774**					
12V dc	360ohm	**206-5771**					
24V dc	1.44kohm	**206-5772**					
48V dc	5.358kohm	**206-5773**					
Fully Sealed, DPDT, 8A							
5V dc	62.5ohm	**206-5816**					
12V dc	360ohm	**206-5815**					
High Capacity, Flux Protection, SPDT, 16A							
5V dc	62.5ohm	**206-5806**					
12V dc	360ohm	**206-5804**					
48V dc	5.358kohm	**206-5805**					
High Capacity, Fully Sealed, SPDT, 16A							
5V dc	62.5ohm	**206-5783**					
12V dc	360ohm	**206-5779**					
24V dc	1.44kohm	**206-5780**					
48V dc	5.358kohm	**206-5781**					

16A Low Profile

G5RL Series

OMRON



- SPST or SPDT contacts
- Power consumption 0.75VA
- Clearance/creepage distance (coil to contacts) of 8mm
- **UL** Recognised, **CSA** and **VDE** approved

H = 15.7, W = 29, D = 12.7mm

Contact arrangement	SPDT / SPDT	Coil consumption (nom.)	0.75VA
Contact rating (Resistive) - (NO)	16A @ 250V, 24V	Operate/release	20ms/20ms
Contact rating (Resistive) - (NC)	5A @ 250V ac, 24V dc	Coil operating range	15 - 75%
Switching capacity	4000VA, 384W	Temperature range	-40 to 70°C

Mftrs.List No.		Order Code	Mftrs.List No.		Order Code
G5RL-1E 230/240AC	=	125-7569	G5RL-1E-HR 12DC	=	133-3638
G5RL-1E-HR 5DC	=	133-3637	G5RL-1E-HR 24DC	=	133-3639

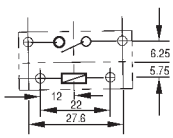
443920

COIL Volts	Ω	Order Code	Price Each 1+	+	+	+
AC Coil - SPDT						
230V	47.6	**125-7569**				
DC Coil - SPDT (High inresh version)						
5V	62.5	**133-3637**				
12V	360	**133-3638**				
24V	1.44	**133-3639**				

20A with Quick Connect Terminals

G4A Series

OMRON



Bottom View
PCB hole dia.=1.8

L=30.5, W=16, D=23.5 (case)
Output terminals 6.3 x 0.8

- SPNO contacts
- 5000VA switching capability
- Dielectric withstand voltage of 4.5kV with 80A surge current capacity
- Ideal for motor load and high power switching
- **CSA** and **TUV** approved, **UL** Recognised

Contact arrangement	SPST	Operate/Release	20ms/10ms
Contact Rating	20A@ 250V ac/30V dc 250V30V	Coil Consumption	900mW
Dielectric Strength	4500V ac(coil/contact) 1000V/m(contact/contact)	Coil Operating Range	70%-160%
		Operating Temperature	-20°C to60°C

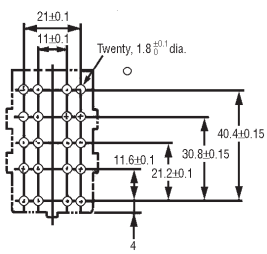
206989

COIL Volts	Ω	Order Code	Price Each 1+	+	+	+	+
SPNO - G4A-1A Series							
12V dc	160	**995-0249**					
24V dc	640	**995-0257**					

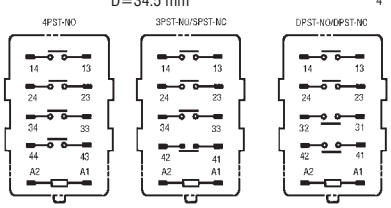
25A-G7J Series

Screw and PCB Termination

OMRON



Screw termination
Dimensions: H=64, W=51.5, D=34.5 mm



- High capacity, high withstand-voltage multi-pole relay
- Can be used like a contactor
- Miniature hinge for maximum switching capacity of motor loads as well as resistive and inductive loads
- PCB or Screw termination

25A-G7J Series - continued

Screw and PCB Termination - continued

- No contact chattering for momentary voltage drops up to 50% of rated voltage
- Withstands more than 4KV between coil/contacts and contacts of different polarity
- Fire resistant case (UL94V-0 qualifying)
- Approved to **CSA** and **UL** Recognised

Contact rating	NO, 25A @ 220Vac/30Vdc NC, 8A @ 220Vac/30Vdc	Coil operating range	75-110%
Coil consumption	2W		

622624

COIL Volts	Ω	Mftrs. List No.	Order Code	Price Each 1+	5+	10+	20+	50+
Screw Termination								
DPST-NO/DPST-NC, G7J-2A2 Series								
24V	288	G7J-2A2B-B 24DC	**118-1264**					
3PST-NO/SPST-NC, G7J-3A1 Series								
24V	288	G7J-3A1B-B 24DC	**118-1265**					
4PST-NO, G7J-4A Series								
24V	288	G7J-4A-B 24DC	**118-1266**					
PCB Termination								
Mounting Bracket		R9904	**118-1263**					

30A PCB Power Relay

G8P Series - Open Enclosure

- Complies with UL873 and UL508 column A spacings (⅛" through air, ¼" over surface)
- UL Class F insulation standard
- Compact, yet capable of switching up to 30A loads
- Ideal for home and industrial appliances, HVAC (heating, ventilating, and air conditioning), and many other applications
- Open enclosure rating

Contact Rating	30A @ 250VAC 20A @ 28 VDC	Operate/Release	15ms/10ms
Dielectric Strength	2500 VAC @ 50/60Hz	Coil Consumption	900mW
Contact Material	AgSnIn	Operating Temperature	-55°C to 105°C

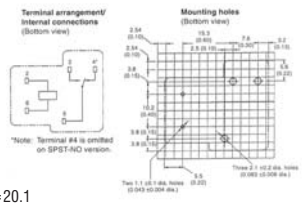
Mftrs. List No.	Order Code	Mftrs. List No.	Order Code
G8P-1AP 5DC	207-6398	G8P-1C2P DC12	207-6399
G8P-1AP 12DC	179-8619	G8P-1C2P DC24	207-6400
G8P-1AP 24DC	179-8620		

608974

Coil Volts.	Ω	Order Code	Price Each 1+	+	+	+	+
SPST-NO							
5	27	NEW **207-6398**					
12	155	**179-8619**					
24	660	**179-8620**					
SPDT							
12	155	NEW **207-6399**					
24	660	NEW **207-6400**					

30A SPNO/SPCO

G8P Series



Overall Dimensions L=32.1, W=27.7, H=20.1

- Heavy duty, capable of switching up to 30A loads
- SPNO or SPCO contact configuration
- Minimum 6kV impulse surge withstand
- Temperature range -55°C to +105°C
- **UL** Recognised and **CSA** approved

Contact arrangement	SPST/SPDT	Operate/Release	15ms/10ms
Contact Rating	30A@ 250V ac SPNO,SPCO	Coil Consumption	900mW
Dielectric Strength	1.5kV @ 50/60Hz	Operating Temperature	-55°C to 105°C
Contact Material			

241558

COIL Volts	Ω	Order Code	Price Each 1+	+	+	+
SPNO - PCB						
12V	155	**995-0206**				
24V	660	**995-0214**				
SPCO - PCB						
12V	155	**995-0222**				
24V	660	**995-0230**				
48V	2.48kohm	NEW **207-6401**				
SPNO - Quick Connect & PCB						
12V	155	NEW **207-6397**				
SPCO - Quick Connect & PCB						
12V	155	**118-1036**				
48V	2.48kohm	NEW **207-6402**				
SPNO - Quick Connect & Flange						
5V	27	NEW **207-6396**				
12V	155	NEW **207-6394**				
48V	2.48kohm	NEW **207-6395**				

100A DC Switching

G9EA-1 Series

- Compact size capable of interrupting high-voltage, high-current loads
- Sealed construction requires no arc space
- SPST-NO contacts

H = 67.2, W = 73, D = 36mm

	High current models		
Rated load - Standard models	60A @ 400V, 100A @ 120V dc	Coil consumption (nom.)	5W
Rated carry current	60A	Operate/release	50ms/30ms
Switching capacity	60A@ 400V	Coil operating range	8 - 75%
Switching voltage - Max.	400V	Temperature range	-40 to 70°C

Mftrs.List No.		Order Code					
G9EA-1B 12DC	=	125-7574	G9EA-1-B 100DC	=	207-6271	G9EA-1 DC48	= 207-6270
G9EA-1B 24DC	=	125-7575	G9EA-1 DC12	=	207-6268	G9EA-1 DC100	= 207-6267
			G9EA-1 DC24	=	207-6269		

443962

COIL Volts	Ω	Order Code	Price Each 1+	5+	10+	+	+
Screw Terminals							
12V	28.8	**125-7574**					
24V	115.2	**125-7575**					
100V	1.864	NEW **207-6271**					
Leads							
12V	28.8	NEW **207-6268**					
24V	115.2	NEW **207-6269**					
48V	469.3	NEW **207-6270**					
100V	1.864	NEW **207-6267**					

200A DC Switching

G9EC-1 Series

- Compact size capable of interrupting high-voltage, high-current loads
- Sealed construction requires no arc space
- M 3.5 screw terminals
- SPST-NO contacts
- **UL** / **CSA** Standard UL508 Approved

H = 86.7, W = 98, D = 44mm

	Standard models	Coil consumption (nom.)	11W
Rated load	200A @ 400V	Operate/release	50ms/30ms
Rated carry current	200A	Coil operating range	8 - 75%
Switching current - Max.	200A	Temperature range	-40 to 50°C
Switching voltage - Max.	400V		

Mftrs.List No.		Order Code	Mftrs.List No.		Order Code
G9EC-1B 12DC	=	125-7578	P9EC-C	=	125-7580
G9EC-1B 24DC	=	125-7579			

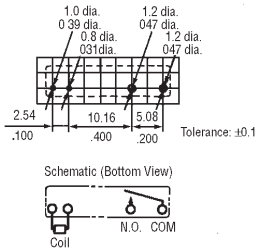
444317

COIL Volts	Ω	Order Code	Price Each 1+	5+	10+	+	+
12V	12.8	**125-7578**					
24V	51.2	**125-7579**					
Terminal Cover							
		125-7580					

RoHS ● Compliant ▲ Non-compliant

5A- Ultra Slim - PA Series.

Panasonic



L=20, W=5, H=12.5
PCB hole dia=1.0 (coil), 1.2 (contacts)

- Ultra slim package permits higher density mounting
- Wide switching capacity - 100mA, 100mV to 3A 250Vac
- High surge voltage resistance 4000V between coil and contacts
- SIL terminal layout
- **UL** Recognised and **CSA** approved

Contact arrangment	SPNO	Operate/Release	6ms/3ms
Contact rating	5A @ 250V ac/30Vdc	Coil operating range	70 - 120% %
Contact material	Silver Alloy, Gold Plated	Temperature range	-40°C to +70°C°C°C
Coil consumption	12V 120mW, 24V 180mW		

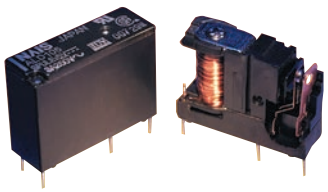
206952

COIL Volts	Ω	Order Code	Price Each 1+	10+	50+	100+	500+
SPNO — PA Series							
5V dc	280ohm	NEW **209-5694**					
12V dc	1.2kohm	**910-363**					
24V dc	3.2kohm	**910-375**					

3A @ 277V ac, 30V dc

LD Series SPST - NO

Panasonic



- Low operating power
- Long life expectancy
- High shock resistance
- High insulation resistance
- **CSA, VDE, TUV** approved, **UL** Recognised

H=15, W=20.3, D=7 mm

Contact arrangment	SPST-NO (1 N/O)	Coil consumption	200 mW
Contact rating	3A ac/dc	Shock resistance	30 G functional, 100 G destructive
Switching capacity	831VA/90W	Resistance, insulation	Min. 1,000 MΩ @ 500V dc
Contact Material	Silver alloy		

241412

COIL Volts	Ω	Mftrs List No.	Order Code	Price Each 1+	10+	25+	50+
SPST NO contacts - LD Series							
12V dc	720	ALD112	**372-7166**				
24V dc	2.88	ALD124	**372-7178**				

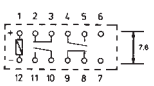
Miniature - S2/S4 Series

Latching/Non-latching

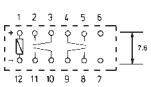
Panasonic

L=28.4, W=12.5, H=10.2
Pin spacing=5.08

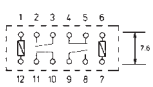
- Available as a monostable or bistable device with bifurcated contacts ensuring low contact resistance
- Unique five layer contact design permits load switching between 1nW and 1KVA
- Pivoting rotating armature ensures high shock and vibration resistance
- Permanent magnet field is used in conjunction with the coil force resulting in a high reliability, high sensitivity relay
- High frequency characteristics exhibit insertion losses of below 0.5dB at 100MHz
- Sealed to **IP67**



S2 Non-latching



S4 Non-latching



S2-L2 Latching

Correct coil polarity must be observed.

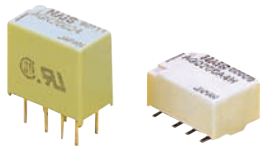
Contact arrangement	DPNO, 4NO
Contact rating	4A @ 250V ac, 3A @ 30V dc250
Max. power	90W/1000VA192
Contact material	Silver Alloy
Coil consumtion (nom.)	192mW
Operate/Release	15ms/10ms (S2), 9ms/5ms (S3), 10ms/5ms (S4)
Coil operating range	65 - 140%
Temperature range	-55°C to +65°C

207159

COIL Volts	Ω	Order Code	Price Each 1+	25+	50+	100+	500+
DPNO + DPNC - S2 Series							
5V dcS2-5VDC	130	**117-5721**					
12V dcS2-12VDC	720	**117-5722**					
24V dcS2-24VDC	2.85	**117-5723**					
4PNO - S4 Series							
5V dcS4-5VDC	130	**117-5724**					
12V dcS4-12VDC	720	**117-5726**					
24V dcS4-24VDC	2.85	**117-5727**					
Latching DPNO + DPNC - S2-L2 Series							
5V dcS2-L2-5VDC	130 + 130	**117-5728**					
12V dcS2-L2-12VDC	720 + 720	**117-5729**					
24V dcS2-L2-24VDC	2.85 + 2850	**117-5730**					

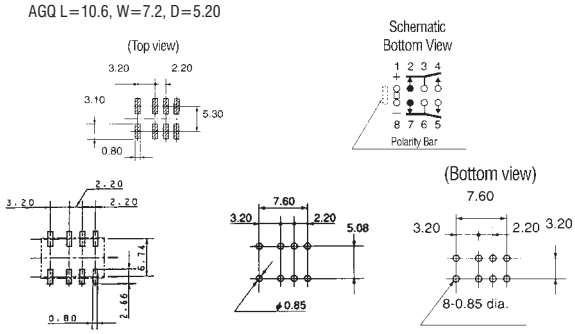
Ultraminiature - AGN/AGQ Series

Panasonic



AGN L=10.6, W=5.7, D=9.00
AGQ L=10.6, W=7.2, D=5.20

- Ultraslim and Ultraflat body styles available
- Through hole or surface mount options
- Twin crossbar contacts for high reliability
- High sensitivity coil (140mW)
- Satisfies BELL-CORE requirements for 2.5kV coil/contact
- Applications include Telecomms, Measuring instruments and Multimedia TVs



Contact arrangement	DPCO	Coil consumption	140mW
Contact rating	300mA @ 125V ac, 1mA @ 30V dc3001	Operate/Release	4ms/4ms
Contact material	Silver Palladium, Gold Clad	Temperature range	-40°C to +85°C

207084

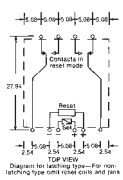
COIL Volts	Ω	Order Code	Price Each 1+	25+	50+	100+	500+
DPCO Slim - AGN Series							
4.5V dc	145	**310-4771**					
12V dc	1.028	**310-4783**					
DPCO Slim Surface Mount - AGN Series							
4.5V dc	145	**310-4795**					
9V dc	810	NEW **209-5587**					
12V dc	1.028	**310-4801**					
12V dc	1.44	NEW **209-5588**					
DPCO Flat - AGQ Series							
4.5V dc	145	**310-4813**					
12V dc	1.028	**310-4825**					
DPCO Flat Surface Mount - AGQ Series							
4.5V dc	145	**310-4837**					
12V dc	1.028	**310-4849**					
4.5V dc	202.5	NEW **209-5589**					

4A/5A Low Profile - NC2D/4D Series

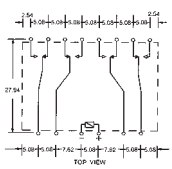
Latching/Non-latching

Panasonic

NC4D
L=38.1,
W=25.4,
H=10.9



NC2D
L=25.4,
W=25.4,
H=10.9



- DPCO and 4PCO bifurcated contacts
- Flux protected

Contact arrangment	DPCO/DPCO		DPCO 5A @ 250V ac
Contact rating	DPCO 5A @ 250V ac	Coil consumption	DPCO 800mW, DPCO 800mW

4A/5A Low Profile - - continued

Latching/Non-latching - continued

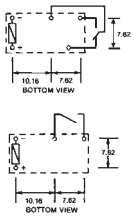
	DPCO latching 450mW-800mW		DPCO 80-135% %
Operate/Release	10ms/5ms	Temperature range	DPCO -40°C to +70°C
Coil operating range	DPCO 80-135%		DPCO -40°C to +70°C

207112

COIL Volts	Ω	Order Code	Price Each 1+	50+	100+
DPCO - NC2D JP Series					
12V dcNC2D JP 12VDC	400	**117-5707**			
24V dcNC2D JP 24VDC	1.6	**117-5708**			
4PCO - NC4D JP Series					
12V dc	200	**117-5711**			

5A Miniature - JQ Series

Panasonic



- Mains switching SPNO/SPCO relays in a compact package
- High electrical noise immunity
- High surge voltage resistance - 8000V between coil and contact
- High coil sensitivity - 200mW(NO), 400mW(CO)
- **UL** Recognised, **CSA**, **TUV** and **SEMKO** approved

Dimensions: L=20, W=10, H=15.6mm
PCB Hole dia.: 1.3mm

Contact arrangment	SPNO/SPCO	Operate/Release	6ms/4ms
Contact rating	5A @ 125V ac 2A @ 240V ac	Coil operating range	SPNO, 75-130% SPCO, 75-110%
Contact material	Silver alloy	Temperature range	-40°C to 85°C
Coil consumption	SPNO, 200mW SPCO, 400mW		

622631

COIL Volts	Ω	Mftrs. List No.	Order Code	Price Each 1+	25+	50+	100+	500+
SPNO - JQ1A Series								
5V dc	125	JQ1A5F	**119-1227**					
12V dc	720	JQ1A12F	**119-1228**					
24V dc	2.88	JQ1A24F	**119-1229**					
SPCO - JQ1 Series								
12V dc	360	JQ112F	**119-1230**					
18V dc	810	JQ1-18V-FT	NEW **209-5652**					
SPNO - JQ1A-B Series - Class B Insulation								
5V dc	125	JQ1A-B-5V-FT	NEW **209-5654**					
12V dc	720	JQ1A-B-12V-FT	NEW **209-5653**					
SPCO - JQ1-B Series - Class B Insulation								
12V dc	360	JQ1-B-12V-FT	NEW **209-5663**					
24V dc	1.44	JQ1-B-24V-FT	NEW **209-5664**					
SPNO - JQ1AP Series - High Capacity								
5V dc	125	JQ1AP-5V-FT	NEW **209-5657**					
12V dc	720	JQ1AP-12V-FT	NEW **209-5655**					
24V dc	2.88	JQ1AP-24V-FT	NEW **209-5656**					
SPCO - JQ1P Series - High Capacity								
5V dc	62.5	JQ1P-5V-FT	NEW **209-5667**					
12V dc	360	JQ1P-12V-FT	NEW **209-5665**					
24V dc	1.44	JQ1P-24V-FT	NEW **209-5666**					
SPNO - JQ1AP-B Series - High Capacity/Class B Insulation								
5V dc	125	JQ1AP-B-5V-FT	NEW **209-5662**					
12V dc	720	JQ1AP-B-12V-FT	NEW **209-5659**					
24V dc	2.88	JQ1AP-B-24V-FT	NEW **209-5661**					
SPCO - JQ1P-B Series - High Capacity/Class B Insulation								
5V dc	62.5	JQ1P-B-5V-FT	NEW **209-5672**					
12V dc	360	JQ1P-B-12V-FT	NEW **209-5668**					
24V dc	1.44	JQ1P-B-24V-FT	NEW **209-5669**					
48V dc	5.76	JQ1P-B-48V-FT	NEW **209-5670**					

5A - LKS Series - Slim

Panasonic ideas for life

Dimensions: L=24, W=11, H=25mm

NEW

- High sensitivity
- High insulation resistance between contact and coil
- High noise immunity realized by the card separation structure between contact and coil
- Popular terminal pitch in AV equipment field
- Space saving slim type

Contact Configuration	SPST-NO
Contact Rating	5A @ 277VAC / 30VDC
Contact material	$AgSnO_2$
Coil consumption	250mW
Operate/Release	15ms/5ms
Temperature range	-40°C to 70°C

658979

COIL Volts	Ω	Mftrs. List No.	Order Code	Price Each 1+	25+	50+	250+
24V dc	2.304K	LKS1AF-24V-T	**209-5693**				

5A - ALDP Series - Slim

Panasonic ideas for life

NEW

- Nominal switching capacity
- Excellent heat resistance and
- Slim type
- High insulation resistance

Contact Configuration	SPST-NO
Contact Rating	5A @ 277VAC / 30VDC
Contact material	AgNi
Coil consumption	200mW
Operate/Release	10ms/10ms
Temperature range	-40°C to 85°C

Dimensions: L=20.5, W=7.2, H=15.3mm

658966

COIL Volts	Ω	Mftrs. List No.	Order Code	Price Each 1+	25+	50+	250+
5V dc	125	ALDP105	**209-5636**				
12V dc	720	ALDP112	**209-5637**				
18V dc	1.62K	ALDP118	**209-5638**				
24V dc	2.88K	ALDP124	**209-5639**				

5A/8A - DSP Series - Polarized

NEW

Panasonic ideas for life

- Compact with high contact rating
- High switching capability
- High sensitivity
- High breakdown voltage
- Sealed construction allows automatic washing

Dimensions: L=20.2, W=11, H=10mm

	1 Form A	1 Form A 1 Form B	2 Form A
Contact Rating	8A @ 250VAC / 30VDC	5A @ 250VAC / 30VDC	5A @ 250VAC / 30VDC
Contact material	$AgSnO_2$	$AgSnO_2$	$AgSnO_2$
Coil consumption	300mW	300mW	300mW
Operate/Release	10ms/5ms	10ms/5ms	10ms/5ms
Temperature range	-40°C to 70°C	-40°C to 65°C	-40°C to 70°C

658965

COIL Volts	Ω	Contact Configuration	Mftrs. List No.	Order Code	Price Each 1+	25+	50+	250+
Single Side Stable								
3V dc	30	SPST-NO / SPST-NC	DSP1-DC3V-F	**209-5624**				
5V dc	83	SPST-NO	DSP1A-DC5V	**209-5625**				
12V dc	480	DPST-NO	DSP2A-DC12V-R	**209-5632**				
48V dc		DPST-NO	DSP2A-DC48V	**209-5633**				
1 Coil Latching								
5V dc	167	SPST-NO / SPST-NC	DSP1-L-DC5V-F	**209-5631**				
2 Coil Latching								
3V dc	30	SPST-NO	DSP1A-L2-DC3V	**209-5627**				
3V dc	30	DPST-NO	DSP2A-L2-DC3V	**209-5635**				
3V dc	30	SPST-NO / SPST-NC	DSP1-L2-DC3V-F	**209-5629**				
5V dc	83	SPST-NO / SPST-NC	DSP1-L2-DC5V-F	**209-5630**				
6V dc	120	SPST-NO	DSP1A-L2-DC6V	**209-5628**				
12V dc	480	SPST-NO	DSP1A-L2-DC12V	**209-5626**				

RoHS Compliant / Non-compliant

5A/10A - JW Series - Compact

NEW

Panasonic ideas for life

- Miniature package with universal terminal footprint
- High dielectric withstanding for transient protection
- Sealed construction
- VDE, TÜV, SEMKO, SEV, FIMKO, TV-5 approved

Dimensions: L=28.6, W=12.8, H=20mm

Contact Configuration	SPST-NO	Operate/Release	15ms/5ms
Switching Voltage	250VAC / 30VDC	Temperature range	-40°C to 85°C
Coil consumption	530mW		

658976

COIL Volts	Ω	Mftrs. List No.	Order Code	Price Each 1+	25+	50+	250+
SPNO - 5A							
12V dc	270	JW1AFSN-B-DC12V-FT	**209-5686**				
24V dc	1.1K	JW1AFSN-B-DC24V-FT	**209-5687**				
DPDT - 5A							
6V dc	68	JW2SN-DC6V-ULCSAT	**209-5690**				
12V dc	270	JW2SN-B-DC12V-ULCSAT	**209-5691**				
48V dc	4.4K	JW2SN-DC48V-ULCSAT	**209-5689**				
SPNO - 10A							
6V dc	68	JW1FSN-DC6V-ULCSAT	**209-5688**				

8A/10A - DK Series - Polarized

NEW

Panasonic ideas for life

- Compact with high capacit
- High capacity switching in a small package
- High sensitivity
- High breakdown voltage
- Sealed construction allows automatic washing

	1 Form A	1 Form A 1 Form B	2 Form A
Contact Rating	10A @ 250VAC / 30VDC	10A @ 250VAC / 30VDC	8A @ 250VAC / 30VDC
Coil consumption	100mW	200mW	200mW
Operate/Release	10ms/8ms	10ms/8ms	10ms/8ms
Temperature range	-40°C to 65°C	-40°C to 65°C	-40°C to 65°C

658937

COIL Volts	Ω	Contact Configuration	Mftrs. List No.	Order Code	Price Each 1+	25+	50+
Single Side Stable							
24V dc	2.88K	DPST-NO	DK2A-24V	**209-5623**			
24V dc	2.88K	SPST-NO / SPST-NC	DK1A1B-24V	**209-5613**			
1 Coil Latching							
3V dc	90	SPST-NO / SPST-NC	DK1A1B-L-3V	**209-5617**			
5V dc	250	SPST-NO	DK1A-L-5V-F	**209-5621**			
12V dc	1.44K	SPST-NO	DK1A-L-12V-F	**209-5618**			
12V dc	1.44K	SPST-NO / SPST-NC	DK1A1B-L-12V	**209-5614**			
24V dc	5.76K	SPST-NO / SPST-NC	DK1A1B-L-24V	**209-5616**			
2 Coil Latching							
12V dc	720	SPST-NO	DK1A-L2-12V-F	**209-5619**			
12V dc	720	SPST-NO / SPST-NC	DK1A1B-L2-12V	**209-5615**			
24V dc	2.88K	SPST-NO	DK1A-L2-24V-F	**209-5620**			

8A/10A - DE Series - Polarized

NEW

Panasonic ideas for life

- Conforms to European safety standards (VDE0700 and VDE0631)
- Surge voltage between contact and coil 12 kV
- Low operating power
- Compact body saves space

Dimensions: L=25, W=12.5, H=12.5mm

	1 Form A	1 Form A 1 Form B	2 Form A
Contact Rating	10A @ 250VAC / 30VDC	8A @ 250VAC / 30VDC	8A @ 250VAC / 30VDC
Contact material	$AgSnO_2$	$AgSnO_2$	$AgSnO_2$
Coil consumption	100mW	200mW	200mW
Operate/Release	10ms/5ms	10ms/5ms	10ms/5ms
Temperature range	-40°C to 70°C	-40°C to 70°C	-40°C to 70°C

658934

COIL Volts	Ω	Contact Configuration	Mftrs. List No.	Order Code	Price Each 1+	25+	50+
Single Side Stable							
24V dc	2.88K	SPST-NO / SPST-NC	DE1A1B-24V	**209-5593**			
5V dc	125	SPST-NO / SPST-NC	DE1A1B-5V	**209-5594**			
12V dc	720	DPST-NO	DE2A-12V	**209-5605**			
5V dc	125	DPST-NO	DE2A-5V	**209-5606**			
1 Coil Latching							
3V dc	90	SPST-NO / SPST-NC	DE1A1B-L-3V	**209-5597**			
4.5V dc	202	SPST-NO / SPST-NC	DE1A1B-L-4.5V	**209-5598**			
5V dc	250	SPST-NO / SPST-NC	DE1A1B-L-5V	**209-5599**			
12V dc	1.44K	SPST-NO	DE1A-L-12V	**209-5600**			
3V dc	90	SPST-NO	DE1A-L-3V	**209-5603**			
4.5V dc	202	SPST-NO	DE1A-L-4.5V	**209-5604**			
4.5V dc	202	DPST-NO	DE2A-L-4.5V	**209-5612**			
2 Coil Latching							
12V dc	720	SPST-NO / SPST-NC	DE1A1B-L2-12V	**209-5595**			
3V dc	45	SPST-NO / SPST-NC	DE1A1B-L2-3V	**209-5596**			
3V dc	45	SPST-NO	DE1A-L2-3V	**209-5601**			
5V dc	125	SPST-NO	DE1A-L2-5V	**209-5602**			
12V dc	720	DPST-NO	DE2A-L2-12V	**209-5607**			
3V dc	45	DPST-NO	DE2A-L2-3V	**209-5608**			
5V dc	125	DPST-NO	DE2A-L2-5V	**209-5611**			

10A - LKP Series - Slim

Panasonic ideas for life

NEW

- High switching capacity
- High insulation resistance between contact and coil
- High noise immunity realized by the card separation structure between contact and coil
- Popular terminal pitch in AV equipment field
- Space saving slim type

Dimensions: L=24, W=11, H=25mm

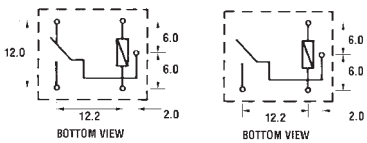
Contact Configuration	SPST-NO
Contact Rating	10A @ 277VAC / 30VDC
Contact material	$AgSnO_2$
Coil consumption	530mW
Operate/Release	15ms/5ms
Temperature range	-40°C to 70°C

658978

COIL Volts	Ω	Mftrs. List No.	Order Code	Price Each 1+	25+	50+	250+
24V dc	1.087K	LKP1AF-24V-T	**209-5692**				

6A/10A/15A Miniature - JS/JSM Series

Panasonic



L=22, W=16.4, H=16.4 (16 JSM)
PCB hole dia=1.3

- Miniature size with universal terminal footprint
- High switching capacity 10A @ 125Vac/6A 277Vac
- Fully sealed construction
- Automotive version available for high capacity DC switching 15A 16Vdc
- Approvals include **UL** and **CSA** and **TUV** for JS Series

Contact arrangment	SPNO/SPCO	Operate/Release	10ms/10ms
Contact rating	JS:-6A @ 277V ac /10A @ 125V JSM:-6A @ 30V dc	Coil operating range	JS: 70 - 130% JSM: 53-133%
Contact material	Silver Alloy	Temperature range	JS:-40°C to +70°C
Coil consumption	JS:-360mW; JSM:360mW		JSM:-40°C to +85°C°C°C

207130

COIL Volts	Ω	Order Code	Price Each 1+	25+	50+	100+	500+
SPNO,6A - JS1A Series							
12V dc	400	**119-1232**					
SPCO,6A - JS1 Series							
5V dc	69.4	**119-1233**					
12V dc	400	**120-0953**					
24V dc	1.6	**120-0954**					
48V dc	6.4	NEW **209-5673**					
SPNO,6A - JS1A-B Series - B Class Insulation							
24V dc	1.6	NEW **209-5674**					
SPCO,6A - JS1-B Series - Class B Insulation							
12V dc	400	NEW **209-5677**					
24V dc	1.6	NEW **209-5678**					
48V dc	6.4	NEW **209-5679**					
9V dc	225	NEW **209-5680**					
SPCO,6A - JS1F-B Series - Class B Insulation							
48V dc	6.4	NEW **209-5681**					
SPNO,6A - JS1APF-B Series - Long Endurance/Class B Insulation/Flux Protected							
12V dc	400	NEW **209-5675**					
24V dc	1.6	NEW **209-5676**					
SPCO Automotive 15A - JSM1 Series							
12V dc	225	**910-351**					

16A - DE Series - Low Profile

NEW

Panasonic ideas for life

- Low profile type
- High insulation resistance
- Anti-surge voltage is 10 kV and higher. (Supports European reinforced insulation requirement.)
- Superior heat resistance
- Low operating power
- UL/C-UL, VDE approved.
- Superior heat resistance and tracking resistance

Dimensions: L=28.8, W=12.5, H=15.7mm

Contact Rating 16A @ 250VAC / 30VDC Coil consumption 400mW Temperature range -40°C to 85°C
Contact material $AgSnO_2$ Operate/Release 15ms/5ms

658968

Volts	COIL Ω	Contact Configuration	Mfrs. List No.	Order Code	Price Each 1+	25+	50+	250+
Class B Insulation								
12V dc	360	SPDT	ALZ12B12T	**209-5643**				
12V dc	360	SPST-NO	ALZ52B12T	**209-5648**				
24V dc	1.44K	SPDT	ALZ12B24T	**209-5644**				
24V dc	1.44K	SPST-NO	ALZ52B24T	**209-5649**				
Class F Insulation								
12V dc	360	SPDT	ALZ12F12T	**209-5645**				
12V dc	360	SPST-NO	ALZ52F12T	**209-5650**				
24V dc	1.44K	SPDT	ALZ12F24T	**209-5647**				
24V dc	1.44K	SPST-NO	ALZ52F24T	**209-5651**				

16A - JVN Series - Flat Compact

Panasonic ideas for life

NEW

- For heater loads
- High 16 A capacity
- Compact, flat case
- High sensitivity at 200 mW
- Represses contact terminal heat
- UL/CSA, TÜV approved

Dimensions: L=22, W=16, H=10.9mm

Contact Configuration SPST-NO Coil consumption 200mW
Contact Rating 16A @ 125VAC / 30VDC Operate/Release 12ms/5ms
Contact material $AgSnO_2$ Temperature range -40°C to 70°C

658972

Volts	COIL Ω	Mfrs. List No.	Order Code	Price Each 1+	25+	50+	250+
5V dc	101	JVN1A-5V-FJ	**209-5684**				
12V dc	720	JVN1AF-12V-FJ	**209-5685**				
24V dc	2.88K	JVN1A-24V-FJ	**209-5682**				

16A @ 277V ac

Panasonic

LE Series SPST - NO

- Excellent heat resistance
- High insulation resistance
- Low operating power
- Approved to **CSA & TUV**, **UL** Recognised

Contact arrangment	SPST, 1 NO (1 Form A)
Contact rating	16 into resistive load
Switching Current, Min.	1.0A
Coil Power (nominal)	1.58W400mW
Contact Material	Silver
Temperature, operating	-40°C to 85°C
Insulation resistance	

H = 24.9, W = 28.6, D = 12.4 mm
TMP type. PCB side with 4 terminals

241416

Volts	Coil Ω	Mfrs. List No.	Order Code	Price Each 1+	10+	25+	50+
TMP type - PCB side with 4 terminals							
5V dc	63	ALE14B05	**372-7180**				
12V dc	360	ALE14B12	**372-7191**				
PCB type							
5V dc	63	ALE1PB05	**171-2521**				
12V dc	360	ALE1PB12	**171-2522**				
18V dc	810	ALE1PB18	NEW **209-5640**				
24V dc	1440	ALE1PB24	**171-2523**				

Power Relays for Home Appliances - 25A

Panasonic ideas for life

NEW

- Ideal for compressor and inverter loads
- High insulation resistance
- PCB and TMP types available
- Conforms to the various safety standards

Contact Configuration	SPST-NO
Contact Rating	25A @ 250V
Contact material	$AgSnO_2$
Coil consumption	900mW
Operate/Release	20ms/15ms
Temperature range	-40°C to 60°C

Dimensions: L=30.1, W=15.7, H=23.3mm

658967

Volts	COIL Ω	Mfrs. List No.	Order Code	Price Each 1+	25+	50+	250+
PCB Style							
12V dc	160	ALF1P12T	**209-5641**				
24V dc	640	ALF1P24	**160-8313**				
TMP Style							
12V dc	160	ALF1T12T	**209-5642**				

High Capacity LF-G Relays - 22A/31A

Panasonic

ALFG Series

NEW

- SPST (1 Form A)
- High Capacity
- Compact size
- Contact gap 1.5mm
- Energy saving - Low coil holding voltage
- High insulation resistance
- **VDE** Approved and **UL** Recognised

H = 23.3, W = 30.1, D = 15.7mm

620385

Volts	COIL Ω	Mfrs. List No.	Order Code	Price Each 1+	10+	25+	50+	100+
Standard Type - 22A @ 250V ac Switching Capacity								
9V dc	58	ALFG1PF09	**186-1590**					
12V dc	103	ALFG1PF12	**186-1592**					
18V dc	230	ALFG1PF18	**186-1593**					
24V dc	410	ALFG1PF24	**186-1594**					
High Capacity Type - 31A @ 250V ac Switching Capacity								
9V dc	58	ALFG2PF09	**186-1595**					
12V dc	103	ALFG2PF12	**186-1596**					
18V dc	230	ALFG2PF18	**186-1597**					
24V dc	410	ALFG2PF24	**186-1598**					

HE Power Relays - 48A

Panasonic

PV Type - HE 1a Series

NEW

- SPST (1 Form A)
- High Capacity
- Compact size
- Contact gap 2.5mm (VDE0126 compliant)
- Energy saving - Reduced coil holding voltage
- High insulation resistance
- High surge breakdown voltage between contacts and coil
- Wide terminal blade connection
- **VDE** Approved and **UL** Recognised

H = 36.3, W = 38, D = 33mm

620387

Volts	COIL Ω	Mfrs. List No.	Order Code	Price Each 1+	5+	10+	25+	50+
48A @ 250V ac Switching Capacity								
6V dc	18.8	HE1AN-P-DC6V-Y5	**186-1599**					
9V dc	42.2	HE1AN-P-DC9V-Y5	**186-1600**					
12V dc	75	HE1AN-P-DC12V-Y5	**186-1601**					
24V dc	300	HE1AN-P-DC24V-Y5	**186-1602**					

EP Power Relays - 80A

Panasonic

PV Type - HE 1a Series

NEW

- SPST (1 Form A)
- High voltage, high current control capability
- Compact package
- Low operating sound
- Enclosed contacts
- Arc space unnecessary
- High contact reliability
- Mounting direction not specified
- Provided with one female connecting wire

H = 79, W = 75.5, D = 40mm

620389

Volts	COIL Power	Mfrs. List No.	Order Code	Price Each 1+	5+	10+	+	+
80A @ 400V dc Switching Capacity								
12V dc	5W	AEP18012W	**186-1603**					
24V dc	5W	AEP18024W	**186-1604**					

RoHS ● Compliant ▲ Non-compliant

8A/12A/16A SPDT & DPDT RSB Series Relay Interface Modules

NEW

- Relays approved to CSA and UL
- 12A relays with C/O contact, 16A relays with 1 C/O contact and 8A relays with 2 C/O contacts
- Comprises sockets with separate contact terminals

Contact voltage	300V DC
Operating temperature	-40°C to +70°C
Mounting type	Plug-In
IP protection	IP40 conforming to EN/IEC 60529

H = 15.7mm, D = 29mm and W = 12.5mm

Order Code	Mftrs. List	Order Code	Mftrs. List	Order Code	Mftrs. List
205-6372	RSB1A160BD	205-6362	RSB2A080B7	205-6376	RSB2A080JD
205-6356	RSB1A120P7	205-6363	RSB2A080B7S	205-6377	RSB2A080P7
205-6360	RSB1A120B7	205-6364	RSB2A080P7S	205-6378	RSB2A080U7
205-6369	RSB1A120BD	205-6373	RSB2A080BD	205-6357	RSZE1S35M
205-6370	RSB1A120BDS	205-6374	RSB2A080BDS	205-6358	RSZL300
205-6371	RSB1A120JD	205-6375	RSB2A080F7	205-6359	RSZR215

640475

Nominal Coil voltage	Coil Resistance	Order Code	Price Per Pack 1+	5+	10+	25+	50+
SPDT, 16A - 1 C/O contact type							
24V dc	1.44kohm	**205-6372**					
SPDT, 12A - 1 C/O contact type							
230V ac	38.5kohm	**205-6356**					
24V ac	400ohm	**205-6360**					
24V dc	1.44kohm	**205-6369**					
24V dc	1.44kohm	**205-6370**					
12V dc	360ohm	**205-6371**					
DPDT, 8A - 2 C/O contact type							
24V ac	400ohm	**205-6362**					
24V ac	400ohm	**205-6363**					
230V ac	38.5kohm	**205-6364**					
24V dc	1.44kohm	**205-6373**					
24V dc	1.44kohm	**205-6374**					
120V ac	10.2kohm	**205-6375**					
12V dc	360ohm	**205-6376**					
230V ac	38.5kohm	**205-6377**					
240V ac	42.5kohm	**205-6378**					
Accessories							
Socket for 1 C/O relay RSZ		**205-6357**					
Label for relay socket RSZ		**205-6358**					
Maintaining clip for relay socket RSZ		**205-6359**					

RXM Series Miniature Plug-In Relay

NEW

H =40mm, D = 27mm and W = 21mm

- Relays approved to CSA and UL
- 12A relays with 2 C/O contacts, 10A relays with 3 C/O contacts, 6A relays with 4 C/O contacts
- Comprises sockets with mixed or separate contact terminals
- Locking components for plastic and metal maintaining clamps available

Operating temperature	-40°C to +55°C	IP protection	IP40 conforming to EN/IEC 60529
Mounting type	Plug-In	Contact material	Silver alloy (Ag/Ni)

Order Code	Mftrs. List	Order Code	Mftrs. List	Order Code	Mftrs. List
205-6366	RXM2AB2BD	205-6420	RXM4AB1E7	205-6438	RXM4GB2BD
205-6404	RXM2AB1B7	205-6421	RXM4AB1ED	205-6439	RXM4GB2P7
205-6405	RXM2AB1BD	205-6423	RXM4AB1F7	205-6361	RXM041FU7
205-6406	RXM2AB1F7	205-6424	RXM4AB1FD	205-6401	RXM021FP
205-6407	RXM2AB1P7	205-6425	RXM4AB1JD	205-6402	RXM021RB
205-6408	RXM2AB2B7	205-6426	RXM4AB1P7	205-6403	RXM040W
205-6411	RXM2AB2F7	205-6427	RXM4AB1U7	205-6368	RXZE2S108M
205-6412	RXM2AB2P7	205-6428	RXM4AB2B7TQ	205-6440	RXZ400
205-6413	RXM3AB1P7	205-6429	RXM4AB2BD	205-6441	RXZE2M114
205-6414	RXM3AB2B7	205-6430	RXM4AB2BDTQ	205-6442	RXZE2M114M
205-6415	RXM3AB2BD	205-6431	RXM4AB2E7	205-6443	RXZE2S111M
205-6416	RXM3AB2F7	205-6432	RXM4AB2ED	205-6444	RXZE2S114M
205-6417	RXM3AB2P7	205-6433	RXM4AB2F7	205-6445	RXZL420
205-6365	RXM4AB2B7	205-6435	RXM4AB2JD	205-6447	RXZR335
205-6418	RXM4AB1B7	205-6436	RXM4AB2P7	205-6448	RXZS2
205-6419	RXM4AB1BD	205-6437	RXM4AB2P7TQ		

640477

Nominal Coil voltage	Coil Resistance	Order Code	Price Each 1+	5+	10+	25+	50+
DPDT, 12A - 2 C/O contact type							
24V dc	650ohm	**205-6366**					
24V ac	180ohm	**205-6404**					
24V dc	650ohm	**205-6405**					
120V ac	4.43kohm	**205-6406**					
230V ac	15kohm	**205-6407**					
24V ac	180ohm	**205-6408**					
120V ac	4.43kohm	**205-6411**					
230V ac	15kohm	**205-6412**					
3PDT, 10A - 3 C/O contact type							
230V ac	15kohm	**205-6413**					
24V ac	180ohm	**205-6414**					
24V dc	650ohm	**205-6415**					
120V ac	4.43kohm	**205-6416**					
230V ac	15kohm	**205-6417**					
4PDT, 6A - 4 C/O contact type							
24V ac	180ohm	**205-6365**					
24V ac	180ohm	**205-6418**					
24V dc	650ohm	**205-6419**					
48V ac	770ohm	**205-6420**					
48V dc	2.6kohm	**205-6421**					
120V ac	4.43kohm	**205-6423**					
110V dc	11kohm	**205-6424**					
12V dc	160ohm	**205-6425**					
230V ac	15kohm	**205-6426**					
240V ac	15.5kohm	**205-6427**					
24V ac	180ohm	**205-6428**					
24V dc	650ohm	**205-6429**					
24V dc	650ohm	**205-6430**					
48V ac	770ohm	**205-6431**					
48V dc	2.6kohm	**205-6432**					
120V ac	4.43kohm	**205-6433**					
12V dc	160ohm	**205-6435**					
230V ac	15kohm	**205-6436**					
230V ac	15kohm	**205-6437**					
24V dc	650ohm	**205-6438**					
230V ac	15kohm	**205-6439**					
Accessories							
RC circuit for RPZ/RXZ sockets		**205-6361**					
Varistor 110-240V for RPZ/RXZ sockets		**205-6401**					
Varistor 6-24V for RPZ/RXZ sockets		**205-6402**					
Diode for RPZ/RXZ sockets		**205-6403**					
Socket for relay RXM2		**205-6368**					
Metal maintaining clamp		**205-6440**					
Socket, screw terminal for RXM2/4		**205-6441**					
Socket, connector terminal for RXM2/4		**205-6442**					
Socket, connector terminal for RXM3		**205-6443**					
Socket, connector terminal for RXM4		**205-6444**					
Clip-in legends for zelio relays		**205-6445**					
Maintaining clamp for RXZ sockets		**205-6447**					
Bus jumper for RXZ sockets		**205-6448**					

RUM Series Universal Plug-in Relays

NEW

- Relays approved to CSA and UL
- 10A relays with 2 and 3 C/O contacts
- Comprises sockets with separate contact terminals
- A metal maintaining clamp for all sockets

H = 55mm, D = 34mm and W = 34mm

Operating temperature	-40°C to +55°C	Contact material	Silver alloy (Ag/Ni)
Mounting type	Plug-In	Contact rating	10A
IP protection	IP40 conforming to EN/IEC 60529		

Order Code	Mftrs. List	Order Code	Mftrs. List	Order Code	Mftrs. List
205-6352	RUMF3AB2ED	205-6389	RUMC3AB1F7	205-6354	RUZSF3M
205-6382	RUMC2AB1B7	205-6390	RUMC3AB1P7	205-6381	RSZE1S48M
205-6383	RUMC2AB1BD	205-6391	RUMC3AB2BD	205-6397	RUZC2M
205-6384	RUMC2AB1F7	205-6393	RUMC3AB2F7	205-6398	RUZC3M
205-6385	RUMC2AB1P7	205-6394	RUMC3AB2P7	205-6396	RUZC200
205-6386	RUMC2AB2BD	205-6395	RUMF3AB2BD	205-6399	RUZS2
205-6387	RUMC2AB2P7	205-6353	RUZSC3M	205-6400	RUZSC2M
205-6388	RUMC3AB1BD				

640476

Nominal Coil voltage	Coil Resistance	Order Code	Price Per Pack 1+	5+	10+	25+	50+
3PDT - 3 C/O contact type							
48V dc	1.8kohm	**205-6352**					
24V dc	470ohm	**205-6388**					
120V ac	1.7kohm	**205-6389**					
230V ac	7.2kohm	**205-6390**					
24V dc	470ohm	**205-6391**					
120V ac	1.7kohm	**205-6393**					
230V ac	7.2kohm	**205-6394**					
24V dc	470ohm	**205-6395**					
DPDT - 2 C/O contact type							
24V ac	72ohm	**205-6382**					
24V dc	470ohm	**205-6383**					
120V ac	1.7kohm	**205-6384**					

Power Relays - Schneider - continued

RUM Series Universal Plug-in Relays - continued

Nominal Coil voltage	Coil Resistance	Order Code	Price Per Pack 1+	5+	10+	25+	50+
DPDT - 2 C/O contact type							
230V ac	7.2kohm	**205-6385**●					
24V dc	470ohm	**205-6386**●					
230V ac	7.2kohm	**205-6387**●					
Accessories							
Socket for relay RUMC3		**205-6353**●					
Socket for relay RUMC2/3		**205-6354**●					
Screw connector, socket RSZ		**205-6381**●					
Socket for relay RUMC2		**205-6397**●					
Socket for relay RUMC3		**205-6398**●					
Metal maintaining clamp for socket RUZ		**205-6396**●					
Bus jumper 2-pole		**205-6399**●					
Socket for RUMC2		**205-6400**●					

Power Relays - Tyco Electronics

SPNO 3A

Tyco Electronics

PCN Series

- Slim, only 5mm deep
- Load range 1mA to 3A
- Sensitive coil of 120mW
- Cadmium-free contacts
- Reinforced insulation, washtight
- Approved to **VDE**, **UL**(United States and Canada) Recognised

H = 12.5, W = 20, D = 5 mm

Contact arrangment	SPNO	Breaking voltage (max)	750VA
Type of contact	Bifurcated	Contact Material	AgNi
Contact rating	3A	Minium contact load	5V dc / 1mA
Rated voltage	250V		

Order Code	Mftrs. List No.	Order Code	Mftrs. List No.
444-4930	PCN-105D3MHZ	444-4954	PCN-124D3MHZ
444-4942	PCN-112D3MHZ		

311622

COIL Volts	Ω	Order Code	Price Each 1+	+	+	+	+
5V	208	**444-4930**●					
12V	1.2	**444-4942**●					
24V	4.8	**444-4954**●					

5A Miniature - PE Series Bistable

Tyco Electronics

- SPCO contacts
- Low profile, 10mm height
- 4 kV coil/contact insulation
- Sensitive coil, 200mW
- **VDE** approved, **UL** Recognised

L=20, W=10, H=1
PCB hole dia.=1.3

Contact arrangement	SPCO	Coil Consumption	200mW
Contact Rating	5A @240V	Mechanical life	5 x 10^6 operations
Contact Material	AgNi 90/10	Temperature Range	-40°C to +85°C

Mftrs. List No. PE014F05=991-3440 PE014F12=991-3459

413956

COIL Volts	Ω	Order Code	Price Each 1+	20+	50+	100+	250+
SPCO - PE bistable							
5V	125	**991-3440**●					
12V	650	**991-3459**●					

6A - Ultra Slim

Tyco Electronics

V23092 Series

- Ultra slim package, 5mm width
- Sensitive coil - 170mW
- 4kV dielectric strength, coil/contact
- SIL terminal layout
- Upright and Flatpack versions available
- **VDE** Approved, **UL** Recognised

L=28, W=5, H=15mm. PCB hole dia 1.3mm=contact, 1mm=coil

Contact arrangement	SPNO/SPCO	Operate/ Release	5ms/2.5ms
Contact Rating	6A @ 250V ac	Coil Operating Range	65-160%
Contact Material	AgSnO2	Temperature Range	-40°C to +85°C
Coil Consumption	170mW		

Order Code	Type No.	Mftrs. List No.	Order Code	Type No.	Mftrs. List No.
117-5047	V23092-A1905-A302	5-1393236-8	117-5052	V23092-A1012-A301	0-1393236-7
117-5048	V23092-A1012-A302	0-1393236-8	117-5053	V23092-A1024-A301	2-1393236-4
117-5049	V23092-A1024-A302	2-1393236-5	162-9031	V23092B1024A301	7-1393236-4
117-5050	V23092-A1905-A301	5-1393236-7			

207026

COIL Volts	Ω	Order Code	Price Each 1+	20+	50+	100+	250+
5V dc	148	**117-5047**●					
12V dc	848	**117-5048**●					
24V dc	3.39	**117-5049**●					
5V dc	148	**117-5050**●					
12V dc	848	**117-5052**●					
24V dc	3.39	**117-5053**●					
SPCO - V23092-B1xxx-A301 Series - Flat Pack							
24V	3.39	**162-9031**●					
xxx = coil voltage							

5A Miniature

Tyco Electronics

U Series

- Compact, low cost PCB mounting relays for switching supply voltages
- High switching capacity up to 1250VA
- Dielectric strength of 4000Vac
- Creepage and clearance distances in excess of 2.3mm
- Fully sealed

L=21.2, W=16.5, H=14.9
PCB hole dia =1.5 (contacts), 1.2 (coil)

Contact arrangement	SPCO	Operate/ Release	7ms/3ms
Contact Rating	5A @ 250V/26Vdc24V	Coil Operating Range	70-120%
Contact Material	AgNi 10	Temperature Range	-25°C to +70°C
Coil Consumption	330mW		

Mftrs. List No. V23148-A1105-A101=117-5042
V23148-A1107-A101=117-5043

206944

COIL Voltage	Ω	Order Code	Price Each 1+	10+	50+	100+	500+
SPCO - V23148 Series							
12V dc	440	**117-5042**●					
24V dc	1.78	**117-5043**●					

SPST-NO 5A

Tyco Electronics

PCJ Series

- Small size
- High dielectric capacity
- Immersion cleanable with vented (flux-tight) cover
- Cadmium-free contacts
- Approved to **CSA** and **VDE**, **UL** Recognised

H = 15, W = 20.4, D = 7mm

Contact arrangment	1 form A (1 SPNO)
Mechanical life	5,000,000 Operations (no load) 10,000,000 operations (rated load)
Minimum load	100mA @ 5V dc
Contact resistance (initial)	100mohm
Max. switched voltage	250VAC
Max. switched power	750VA
Dielectric strength (coil/contacts)	4000VAC
Operating temperature	-40 to 90°C

Order Code	Mftrs. List
117-7782	PCJ-105D3M
117-7784	PCJ-112D3M

311629

COIL Volts	Ω	Order Code	Price Each 1+	20+	50+	100+	250+
5V	125	**117-7782**●					
12V	720	**117-7784**●					

6A Miniature.

Tyco Electronics

RE Series.

- Single pole 6A 1NO contact
- Sensitive coil 200 mW
- Optimized height 10.6mm
- PCB area 200 mm^2
- Wash tight

H = 10.6, W = 20, D = 10mm

Contact arrangement	SPNO	Coil Consumption	200mW
Contact Rating	6A @ 250V ac	Temperature Range	-40 to +70°C(+85°C @ 4A)
Operate/ Release	6ms/2ms		

Order Code	Type No.	Mftrs. List No.	Order Code	Type No.	Mftrs. List No.
515-838	RE030005	0-1393217-1	162-9021	RE034012	2-1416010-6
515-840	RE030012	0-1393217-4	162-9022	RE034024	2-1416010-7
515-851	RE030024	0-1393217-8			

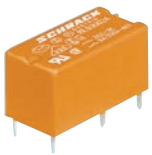
206991

COIL Volts	Ω	Order Code	Price Each 1+	20+	50+	100+
AgCdO Contact Material						
5V dc	125	**515-838**●				
12V dc	720	**515-840**●				
24V dc	2.88	**515-851**●				
AgNi 90/10 Contact Material						
12V	720	**162-9021**●				
24V	2.88	**162-9022**●				

SPST-NO - 6A @ 240V ac

Tyco Electronics

RE Series - Sensitive Coil



- Single Pole, 1 NO contact
- Sensitive coil 200 mW
- 4 kV coil-contact dielectric strength
- Wash tight
- Only occupies 200 mm^2 PCB area

H = 10.6, W = 20, D = 10mm

Contact arrangement	SPNO	Dielectric voltage between and contacts	1000VAC
Contact current rating	6A @ 240V ac		
Breaking capacity (max)	1500 VA	Contact material	AgNi 0.15
Power - Coil	200mW	Contact plating	Gold
Dielectric voltage between coil and contacts	4000VAC	Operating temperature	-40 to 70°C

Mftrs. List No.	Order Code	Mftrs. List No.	Order Code
RE032005	965-9676	RE032024	965-9692
RE032012	965-9684		

411866

COIL Voltage	Ω	Order Code	Price Each 1+	20+	50+	100+	250+
5V	125	**965-9676**●					
12V	720	**965-9684**●					
24V	2.88	**965-9692**●					

8A and 5A Low Profile/Vertical -

Tyco Electronics

Card E Series

Contact arrangment	SPCO
Max. continuous current	8A/5A with AgNi 0.15 contacts 250V
Contact material	AgNi 20/AgNi 0.15
Coil consumption	500mW
Operate/Release	7ms/6ms
Coil operating range	65 - 175%
Temperature range	-40°C to +70°C°C

- SPCO contacts
- Low profile or vertical packages
- 4kV coil-contact isolation
- Wash tight
- **VDE & CSA** approved, **UL** Recognised

207057

COIL Volts	Ω	Order Code	Price Each 1+	20+	50+	100+	250+
Low Profile - Fine Silver Nickel (AgNi 0.15) Contacts-V23057-AX-A101 (5A)							
12V dc	330	**117-5010**●					
24V dc	1.2	**119-7650**●					
Low Profile - Silver Nickel (AgNi 20) Contacts - V23057-AX-A201 (8A)							
12V dc	330	**119-7651**●					
Vertical - Fine Silver Nickel (AgNi 0.15) Contacts - V23057-BX-A101 (5A)							
12V dc	330	**119-7648**●					
24V dc	1.2	**119-7649**●					
Vertical - Silver Nickel (AgNi 20) Contacts - V23057-BX-A20 (8A)							
12V dc	330	**119-7652**●					
24V dc	1.2	**119-7653**●					

6A Miniature

Tyco Electronics

PT Series

- 4 pole contact arrangement
- Industry standard terminal layout
- Cadmium free AgNi contacts
- Mechanical Flag
- **VDE** approved

Order Code	Mftrs. List No.
307-2824	PT571024
307-3014	PT571730

L=28, W=22.5, H=29

Contact Rating	6A @ 230V ac	Coil Consumption	1VA ac, 750mW dc
Contact Material	AgNi 90/10	Temperature Range	-45°C to +70°C
Operate/ Release	15ms/10ms		

207075

COIL Volts	Ω	Order Code	Price Each 1+	20+	50+	100+	250+
4PCO - PT57 Series							
24V dc	777	**307-2824**●					
230V ac	19.465	**307-3014**●					

8A Low Profile

Tyco Electronics

MSR Series

- SPCO contacts
- 4kV isolation and 8mm creepage/clearance
- Gold contact version has minimum load of 1mA/6Vdc
- **VDE** and **CSA** approved, **UL** Recognised

L=30, W=10, H=15 PCB hole dia.=1.3

Contact arrangment	SPCO	Operate/Release	6ms/2.5ms
Contact rating	8A @ 250V ac/30V dc	Coil operating range	70 - 230%
Contact material	Silver Cadmium Oxide	Temperature range	-40°C to +85°C
Coil consumption	210 to 260mW		

Order Code	Mftrs. List	Order Code	Mftrs. List
102-3957	V23061B1003A301		
102-3958	V23061B1005A301	102-4038	V23061-B1005-A601
102-3959	V23061B1007A301		

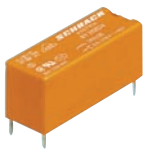
206962

COIL Volts	Ω	Order Code	Price Each 1+	10+	50+	100+	500+
SPCO - V23061-B100X-A301							
6V dc	165	**102-3957**●					
12V dc	650	**102-3958**●					
24V dc	2.27	**102-3959**●					
Gold Plated Contacts SPCO - V23061-B100X-A601							
12V dc	650	**102-4038**●					

Single Pole CO or NO - 8A @ 240V ac

Tyco Electronics

RY Series



Contact arrangement	SPCO / SPNO
Contact current rating	8A @ 240V ac
Breaking capacity (max)	2000 VA
Power - Coil	200mW
Dielectric voltage between coil and contacts	5000VAC
Dielectric voltage between and contacts	1000VAC
Contact material	AgNi 0.15
Operating temperature	-40 to 70°C

H = 12.3, W = 28.5,
D = 10.1mm

- Single Pole 8A, 1 x CO or 1 x NO contact
- Low height 12.3mm
- Reinforced insulation
- Wash tight

Mftrs. List No.	Order Code	Mftrs. List No.	Order Code
RY611005	965-9706	RYA31005	965-9730
RY611012	965-9714	RYA31012	965-9749
RY611024	965-9722	RYA31024	965-9757

411870

COIL Voltage	Ω	Order Code	Price Each 1+	20+	50+	100+	250+
1 x CO contact - 3.2mm pinning							
5V	112	**965-9706**●					
12V	627	**965-9714**●					
24V	2.35	**965-9722**●					
1 x NO contact - 5mm pinning							
5V	112	**965-9730**●					
12V	627	**965-9749**●					
24V	2.35	**965-9757**●					

8A Low Profile

Tyco Electronics

RY2 Series

- SPCO contacts
- 5 kV / 8mm coil-contact
- Low profile, 12.3mm height
- Reinforced insulation
- **VDE** Approved, **UL** Recognised

L=28.5, W=10.1, H=12.0, PCB hole dia.=1.3

Contact arrangement	SPCO	Operate/ Release	7ms/3ms
Contact Rating	8A @ 250Vac	Coil Consumption	220mW (nom)
Contact Material	Silver Cadmium Oxide / AgNi 0.15	Temperature Range	-40°C to +85°C

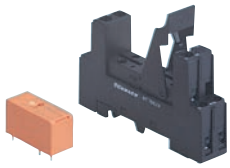
Order Code	Type No.	Mftrs. List No.	Order Code	Type No.	Mftrs. List No.
515-863	RY610005	0-1393225-7	162-9032	RY211005R	1-1956170-2
515-875	RY610012	1-1393225-0	162-9033	RY211012R	1-1956170-6
515-887	RY610024	1-1393225-4	162-9034	RY211024R	1956164-1

206990

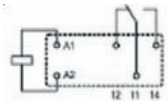
COIL Volts	Ω	Order Code	Price Each 1+	20+	50+	100+
3.2mm pinning, wash tight - AgCdO Contact Material						
5V dc	113	**515-863**●				
12V dc	620	**515-875**●				
24V dc	2.35	**515-887**●				
3.2mm pinning, flux proof - AgNi 0.15 Contact Material						
5V	112	**162-9032**●				
12V	627	**162-9033**●				
24V	2.35	**162-9034**●				

8A/10A/12A/16A

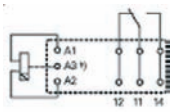
Tyco Electronics



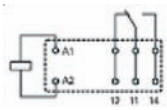
Relay: L=29, W=12.7, H=15.7mm
Socket: L=75.5, W=15.5, H (overall, incl. ejector)=60mm



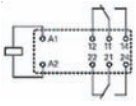
10A/12A SPCO



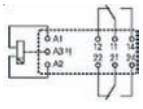
16A SPCO Bistable



16A SPCO



8A DPCO



8A DPCO Bistable

Relays:
- Fully sealed construction
- Cadmium-free contact material
- **IP20** protected terminals
- Coil/contact 5kV/10mm
- Sensitive coil 400mW(250mW high sensitivity)

Sockets: (Single coil version only)
- Relay Retainers + Ejectors available
- 15.5mm width only
- Protection category 2 to **VDE0700**

10/12A and 16A SPCO and 8A DPCO power relays with industry standard '3.5mm' and '5mm' footprints, but with a height of only 15.7mm. Approvals to **VDE, OVE, SEV, UL** and pending to **CSA, BEAB**. DIN rail sockets available for panel mount applications.

Contact arrangement	SPCO/DPCO	Operate/Release	7ms/3ms
Contact Rating SPCO	10/12/16A @ 250Vac	Coil Consumption	400mW(250mW high sensitivity)
DPCO	8A @ 250Vac	Temperature Range	-40°C to +70°C
Contact Material	Silver Nickel 90/10	Coil Operating Range	70-175%

Order Code	Mftrs. List No.	Order Code	Mftrs. List No.	Order Code	Mftrs. List No.
117-5013	RTB14012	162-9043	RT314005	117-5037	RTE24524
117-5015	RTB14024	162-9044	RT314012	117-5039	RTE24615
117-5035	RTB14615	162-9045	RT314024	117-5041	RTE24730
117-5036	RTB14730	162-9047	RT314524	162-9052	RT424005
162-9036	RT114012	162-9048	RT314615	162-9053	RT424012
162-9038	RT114024	162-9051	RT314730	162-9054	RT424024
162-9040	RT114524	177-0612	RT31C012	162-9055	RT424048
162-9041	RT114615	162-9018	RTH14012	162-9056	RT424524
162-9042	RT114730	117-5083	RT314F12	162-9057	RT424615
117-5044	RTB74005	117-5084	RT314F24	162-9058	RT424730
117-5045	RTB74012	117-5019	RTE24006	117-5085	RT424F12
117-5016	RTD14012	117-5020	RTE24012	117-5086	RT424F24
117-5017	RTD14024	117-5021	RTE24024	991-3548	RT17040
117-5018	RTD14048	117-5022	RTE24048	991-3521	RT78726

272823

COIL Volts	Ω	Order Code	Price Each 1+	20+	50+	100+
SPCO, 12A - RT11 Series						
12V dc	360	**162-9036●**				
24V dc	1.44k	**162-9038●**				
24V ac	350	**162-9040●**				
115V ac	8.1k	**162-9041●**				
230V ac	32.5k	**162-9042●**				
SPCO, 12A - RTB14 Series						
12V dc	360	**117-5013●**				
24V dc	1.44k	**117-5015●**				
115V ac	8.1k	**117-5035●**				
230V ac	23.5k	**117-5036●**				
SPCO, 16A - RTD14 Series						
12V dc	360	**117-5016●**				
24V dc	1.44k	**117-5017●**				
48V dc	5.52k	**117-5018●**				
SPCO, 16A - RTH14 Series - 105°C						
12V dc	360	**162-9018●**				
DPCO, 8A - RTE24 Series						
6V dc	90	**117-5019●**				
12V dc	360	**117-5020●**				
24V dc	1.44k	**117-5021●**				
48V dc	5.52k	**117-5022●**				
24V ac	350	**117-5037●**				
115V ac	8.1k	**117-5039●**				
230V ac	32.5k	**117-5041●**				
SPCO, 16A - RT31 Series						
5V dc	62	**162-9043●**				
12V dc	360	**162-9044●**				
24V dc	1.44k	**162-9045●**				
24V ac	350	**162-9047●**				
115V ac	8.1k	**162-9048●**				
230V ac	32.5k	**162-9051●**				

COIL Volts	Ω	Order Code	Price Each 1+	20+	50+	100+
SPCO, 16A - RT31 Series - Bifurcated						
12V dc	360	**177-0612●**				
SPCO, 16A - RT31 Series - Bistable						
12V dc	240	**117-5083●**				
24V dc	886	**117-5084●**				
DPCO, 8A - RT42 Series						
5V dc	62	**162-9052●**				
12V dc	360	**162-9053●**				
24V dc	1.44k	**162-9054●**				
48V dc	5.52k	**162-9055●**				
24V ac	350	**162-9056●**				
115V ac	8.1k	**162-9057●**				
230V ac	32.5k	**162-9058●**				
DPCO, 8A - RT42 Series - Bistable						
12V dc	360	**117-5085●**				
24V dc	360	**117-5086●**				
SPCO, 10A - RTB74 Series - High Sensitivity						
5V dc	100	**117-5044●**				
12V dc	576	**117-5045●**				
DIN Rail Sockets with Retainer/Ejector						
Retainer Clip - 3.5mm		**991-3513●**				
Retainer Clip - 5mm		**991-3521●**				
PCB Sockets and Clips						
3.5mm		**119-7679●**				
5mm		**119-7681●**				
Order Multiple = 5			5+	20+	50+	100+
Metal Clip		**119-7682●**				
Plastic Clip		**119-7683●**				
Marking Tag		**991-3548●**				

SPST-NO - 16A @ 240V ac

Tyco Electronics

RT1 Series

- Single Pole, 1 NO contact
- 10A / 250V ac making and breaking capacity (IEC 60669-1)
- 165A / 20 ms inrush peak current
- 5 kV / 10mm coil-contact
- Reinforced insulation

H = 15.7, W = 29, D = 12.7mm

Contact arrangement	SPST NO	Dielectric voltage between coil and contacts	4000VAC
Contact current rating	16A @ 240V ac	Dielectric voltage between and contacts	1250VAC
Inrush peak current rating	165A / 20 ms	Contact material	AgSnO2
Power - Coil	400mW		

Order Code	Type No.	Mftrs. List No.	Order Code	Type No.	Mftrs. List No.
162-9016	RTS3L012	1-1415898-9	177-0618	RTS3LA24	2-1415898-4
162-9017	RTS3L024	1-1415898-4	965-9560	RTS3T012	0-1415898-0
177-0617	RTS3LA12	2-1415898-3	965-9579	RTS3T024	0-1415898-1

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COIL Voltage	Ω	Order Code	Price Each 1+	20+	50+	100+	250+
Standard contact - Monostable Coil							
12V	360	**162-9016●**					
24V	1.44k	**162-9017●**					
Standard contact -Bistable Coil							
12V	360	**177-0617●**					
24V	1.44k	**177-0618●**					
Tungsten (W) pre-make contact - Monostable Coil							
12V	360	**965-9560●**					
24V	1.44k	**965-9579●**					

SPST-CO - 16A @ 250V ac

Tyco Electronics

- 1 pole 16 A, 1 NO contact
- For inrush peak currents up to 80 A
- Sensitive coil 400mW
- 5 kV / 10 mm coil-contact
- Reinforced insulation

Contact arrangement	SPST - NO	Dielectric voltage between coil and contacts	5000V rms
Contact current rating	16A @ 250V ac	Dielectric voltage between and contacts	1000V rms
Power - Coil	400mW	Contact material	$AgSnO_2$

Order Code	Mftrs. List No.	Order Code	Mftrs. List No.
177-0614	RT33L012	177-0616	RT33L024

549381

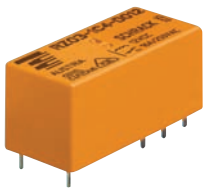
RoHS ● Compliant ▲ Non-compliant

COIL Volts	Ω	Order Code	Price Each 1+	20+	50+	100+	250+
12V dc	360	**177-0614**●					
24V dc	1.44k	**177-0616**●					

SPCO-CO 12A/16A

Tyco Electronics

RZ Series



H=15.7, W=29, D=12.7mm

- 1 pole 12 / 16 A
- 1 CO contact
- DC-coil 400mW
- 5 kV / 10 mm coil-contact, reinforced insulation
- Ambient temperature 85°C

Applications:

- Household appliances
- Boiler control
- Timers
- Garage door control
- POS automation

Rated voltage / max. switching voltage AC	250 / 400 VAC	
Rated current	12A	16A
Maximum breaking capacity AC	3000VA	4000VA
Contact material	AgNi 90/10	
Operate / release time DC coil	max 8 / 6 ms	

Order Code	Mftrs. List No.	Order Code	Mftrs. List No.
171-4771	RZ01-1C4-D012	171-4773	RZ03-1C4-D012
171-4772	RZ01-1C4-D024	171-4774	RZ03-1C4-D024

537267

COIL Volts	Ω	Order Code	Price Each 1+	25+	50+	100+	250+
SPCO - 12A - 3.5mm Pinning							
12V	360	**171-4771**●					
24V	1.44	**171-4772**●					
SPCO - 16A - 5mm Pinning							
12V	360	**171-4773**●					
24V	1.44	**171-4774**●					

Protection and Indication Modules

Tyco Electronics

H=23, W=13, D=9

- Plug-in modules for use with sockets Order Codes 625-619 and 625-620 detailed above
- Diode version provides protection for DC coils
- LED versions provide indiction for commisioning and monitoring purposes
- Modules are securely held in place once the relay is fitted

Mftrs. List No. PTMT00A0=991-3556
PTML0524=991-3564

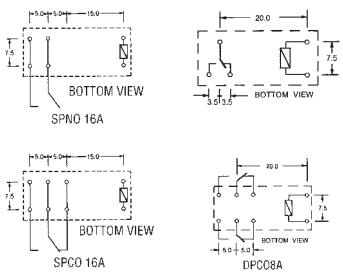
207016

Type	Operating Voltage	Order Code	Price Each 1+	20+	50+	+	+
Diode	A1+, A2-	**991-3556**●					
LED	6 to 24V ac/dc	**991-3564**●					

8A/12A/16A Vertical

Tyco Electronics

RP Series



Dimensions: L=29, W=12.6, H=25.5mm

- SPNO/SPCO or DPCO contacts
- Flux-tight or IP67 sealed version
- 4kV/8mm coil-contact isolation
- Vent hole which can be pierced after assembly

Contact arrangement	SPNO/SPCO/DPCO	Operate/ Release	8ms/2ms
Contact Rating	SPNO, 16A @ 250v ac SPCO, 12A @ 250v ac SPCO, 16A @ 250v ac DPCO, 8A @ 250v ac	Temperature Range	-40°C to 70°C
Contact Material	Silver Cadmium oxide		

622358

COIL Volts	Ω	Mftrs. List No.	Order Code	Price Each 1+	20+	50+	100+	250+
SPNO - 16A - RP33 Series								
12V	270	RP330012	**388-178**●					
24V	1.1	RP330024.	**388-180**●					
SPCO - 12A - RP41 Series								
12V	270	RP418012.	**388-191**●					
24V	1.1	RP418024.	**388-221**●					
SPCO - 12A, Sealed - RP81 Series								
12V	270	RP818012.	**388-270**●					
24V	1.1	RP818024.	**388-282**●					
SPNC - 16A - RP31 Series								
12V	270	RP310012.	**388-294**●					
24V	1.1	RP310024.	**388-300**●					
SPCO - 16A, Sealed - RP71 Series								
12V	270	RP710012	**388-312**●					
24V	1.1	RP710024.	**388-324**●					
DPCO - 8A - RP42 Series								
12V	270	RP420012.	**388-336**●					
24V	1.1	RP420024.	**388-348**●					
DPCP - 8A, Sealed - RP882 Series								
12V	270	RP821012	**117-5011**●					
24V	1.1	RP821024	**119-7647**●					

SPST-NO - 33A @ 12V dc

Tyco Electronics

Applications:

- ABS control
- Blower fans
- Cooling fan
- Engine control
- Fuel pump
- Glow plug
- Hazard warning signal
- Switched power supply

Dimensions: W=16, H=15.9, D=18.3mm

Contact Configuration	SPST-NO (1 Form A)	Max. Switching Current:		
Rated Voltage	12V		On	200A
Rated Current	33A		Off	40A
Contact Material:	Silver Based			

Mftrs. List No.	Order Code
V23201C1001A502	177-0634

549420

COIL Volts	Ω	Order Code	Price Each 1+	20+	50+	100+	250+
12V dc	176	**177-0634**●					

12A, Special Load

Tyco Electronics

RP3SL Series

- High inrush capability, 120A for 20ms
- Standard 5mm pinning
- Rated carry current of 12A@250Vac
- Protection category II to **VDE 0631** and **VDE 0700**
- Ideal for switching incandescent and fluorescent lamps and highly inductive/ capacitive loads
- **UL** Recognised, **VDE** approved

L=29, W=12.6, H=25.5mm

Contact arrangement	SPNO	Coil Consumption	500mW
Contact Rating	16A@250Vac/24Vdc	Inrush Current (max)	120A (20 ms)
Contact Material	AgSnO2	Temperature Range	-40°Cto +70°C
Operate/ Release	8ms/2ms		

Order Code	Mftrs. List No.	Order Code	Mftrs. List No.
117-5054	RP3SL012	117-5055	RP3SL024

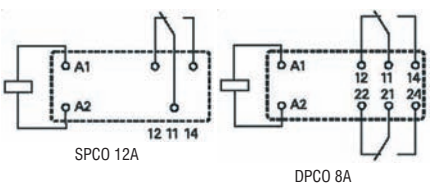
207027

COIL Volts	Ω	Order Code	Price Each 1+	20+	50+	100+	250+
SPNO - RP3SL Series							
12V dc (8.6-23.4)	270	**117-5054**●					
24V dc(17.3-46.8)	1.1	**117-5055**●					

8A/12A/16A RX Series

Tyco Electronics

AC and DC Versions of SPCO and DPCO



SPCO 12A

DPCO 8A

H = 15.7, W = 29, D = 12.7mm

- 4 kV/8 mm coil-contact
- Reinforced insulation (protection class II)
- Flux-tight case
- Transparent cover

Contact arrangement	SPCO/DPCO	Operate/ Release time - dc coil	7ms/2ms
Contact Rating	8 / 12 / 16A @ 250V	Temperature Range - SPCO dc coil	-40°C to 85°C
Contact Material	AgNi 90/10	Temperature Range -	-40°C to 70°C
Coil Consumption - ac coil/dc coil	500mW / 0.75VA	All other versions	

Order Code	Mftrs. List No.	Order Code	Mftrs. List No.
117-5054	RP3SL012	965-9307	RX424024C
965-9293	RX424012C	965-9315	RX424730C

8A/12A/16A RX Series - continued

AC and DC Versions of SPCO and DPCO - continued

411370

COIL Volts	Ω	Order Code	Price Each 1+	20+	50+	100+	250+
DPCO - 8A, 5mm pinning							
12V	270	**117-5054**●					
12V	274	**965-9293**●					
24V	1.095	**965-9307**●					
230V	32.5	**965-9315**●					

SPST-NO - 16A @ 240V ac

Tyco Electronics

Quick Connect Terminals - RF Series

Vertical terminals
H=16, W=29, D=13.2mm
(Body)

Horizontal terminals
H=16, W=29, D=13.2mm
(Body)

- Single Pole 16A NO contact
- Switching capacity 4000 VA
- Coil power 400 mW
- Quick connect terminals for load side
- Reinforced insulation

Contact arrangement	SPST NO
Contact current rating	16A @ 240V ac
Maximum switching voltage	400V ac
Maximum breaking capacity (ac)	4000 VA
Power - Coil	400mW
Dielectric voltage between coil and contacts	4000VAC
Dielectric voltage between and contacts	1500VAC
Contact material	AgNi 90/10
Operating temperature	-40 to 105°C

Mftrs. List No.	Order Code	Mftrs. List No.	Order Code
RFH34012WG	965-9587	RFHD4012WG	965-9617
RFH34024WG	965-9595		

411792

COIL Voltage	Ω	Order Code	Price Each 1+	20+	50+	100+	250+
Vertical terminals							
12V	360	**965-9587**●					
24V	1.44	**965-9595**●					
Horizontal terminals							
12V	360	**965-9617**●					

10A Miniature - SPCO

Tyco Electronics

T7N Series

- Popular footprint, lower height package
- Cadium-free contacts
- Flux-proof package
- Vent hole which can be pierced after assembly
- **VDE** and **CSA** approvals, **UL** Recognised

L = 21, W = 16, H = 16.3mm

Contact arrangement	SPDT
Contact Rating	10A @ 250V/30Vdc, 12A @ 125Vac
Contact Material	Silver Tin Oxide
Operate/ Release	10ms/5ms
Temperature Range	-40°C to +85°C

Mftrs. List No.	Order Code	Mftrs. List No.	Order Code
T7NS5D4-06	965-9641	T7NS5D4-24	121-8837
T7NS5D4-12	117-5012	T7NS5D4-48	965-9650

207003

COIL Volts	Ω	Order Code	Price Each 1+	20+	50+	100+	250+
SPCO - T7N Series							
6V	100	**965-9641**●					
12V dc	320	**117-5012**●					
24V dc	1.28	**121-8837**●					
48V	6.4	**965-9650**●					

10A @ 125V ac/5A @ 30V dc - Miniature

Tyco Electronics

PCH Series

- Compact size
- Sealed plastic case
- High surge voltage - 8000V
- **CSA** and **VDE** Approved, **UL** Recognised

H = 15.2, W = 19.8, D = 9.9 mm

Contact arrangement	SPST or SPDT
Contact current rating	10A @ 125V ac resistive 5A @ 30V dc
Power - Coil	200mW - SPST, 400mW - SPDT
Surge between coil and contacts	8000V
Contact material	AgSnO2

Order Code	Mftrs. List No.	Order Code	Mftrs. List No.
117-5073	PCH-112D2H	965-9323	PCH-105L2MH
117-5074	PCH-124D2H	965-9331	PCH-112L2MH
		965-9340	PCH-124L2MH

239948

COIL Volts	Ω	Order Code	Price Each 1+	20+	50+	100+	250+
SPDT-CO							
12V dc	360	**117-5073**●					
24V dc	1.44	**117-5074**●					
SPST-NO			1+	20+	50+	100+	250+
5V	125	**965-9323**●					
12V	420	**965-9331**●					
24V	2.8	**965-9340**●					

10A, Miniature

Tyco Electronics

PB Series

- Minimal footprint
- PCB Through Hole Type mounting
- **UL** recognised, **VDE** approved

Contact arrangment	SPDT- changeover (1 Form C)
Contact rating	10A
Contact Material	Silver Nickel
Coil consumption	360 mW

L = 15, W = 15, H = 20 mm

Order Code	Mftrs. List	Order Code	Mftrs. List
117-5076	PB114006	117-5077	PB114012
117-5078	PB114024		

239955

COIL Volts	Ω	Order Code	Price Each 1+	10+	50+	100+	500+
SPDT C/O contacts - PB Series							
6V dc	100	**117-5076**●					
12V dc	400	**117-5077**●					
24V dc	1.6	**117-5078**●					

10A/30A - PCB or Panel Mount

Tyco Electronics

T9A Series

- SPNO and SPCO contacts
- Quick connect power output terminals and PCB terminal for both coil and contact or
- All PCB terminal versions available
- Water-tight (Washable) plastic case
- **CSA** approved and **UL** Recognised

H (Quick Connect) = 27.94, (PCB Pins) = 20.4mm
W = 32.51, D = 27.43mm

Contact arrangement	SPNO/SPCO	Operate/Release	15ms/15ms
Contact rating, SPNO	30A @ 240V ac / 28V dc	Coil consumption	1mW
Contact rating, SPCO	20A @ 240V ac / 28V dc (N/C)	Coil operating range	75-110%
Contact material	Silver Cadmium Oxide / AgNi	Temperature range	-55°C to +85°C
Dielectric strength	2500VAC rms		

Order Code	Part No.	Mftrs. List No.	Order Code	Part No.	Mftrs. List No.
619-723	1-1419104-7	T9AS1D22-12	162-9066	6-1423091-8	T9AS1D24-24
619-735	2-1419104-1	T9AS1D22-24	619-747	3-1419104-3	T9AS5D22-12
162-9063	6-1423091-6	T9AS1D24-5	619-759	3-1419104-6	T9AS5D22-24
162-9064	6-1423091-7	T9AS1D24-12	162-9061	6-1423091-3	T9AS1D14-24

207008

COIL Volts	Ω	Order Code	Price Each 1+	25+	50+	100+
Quick Connect Terminals with PCB Mount Pins						
SPNO - Silver Cadmium Contacts						
12V dc	144	**619-723**				
24V dc	576	**619-735**				
SPNO - AgNi Contacts						
5V	25	**162-9063**				
12V	144	**162-9064**				
24V	576	**162-9066**				
SPCO - Silver Cadmium Contacts						
12V dc	144	**619-747**				
24V dc	576	**619-759**				
PCB Pin Terminals with PCB Mount Pins						
SPNO - AgNi Contacts						
24V	576	**162-9061**				

15A, Low Profile

PCD Series

Tyco Electronics

- Low profile (10mm)
- Sealed plastic case
- Sensitive coil (200mW)
- **UL** Recognised, **CSA, TUV** approved

L = 23, W = 16.1, H = 10.2 mm

Contact arrangment	SPST-NO (1 Form A)		
Contact rating	15A @ 125V ac resistive, 10A @ 24V dc resistive		
Switching capacity	1800VA/240W		
Contact Material	AgSnO	Order Code	Mftrs. List No.
Coil consumption	200 mW	177-0619	PCD-105D2M
Operate/Release	15 ms/8 ms max.	177-0620	PCD-112D2M
Coil operating range	75% to 10%	177-0621	PCD-124D2M
Temperature range	-30°C to +70°C	102-3960	PCD-112D2MH

239905

COIL Volts	Ω	Order Code	Price Each 1+	20+	50+	100+	250+
Flux Proof							
5V dc	125	**177-0619**					
12V dc	720	**177-0620**					
24V dc	2.88k	**177-0621**					
Wash Tight							
12V dc	720	**102-3960**					

SPST-NO - 25A @ 250V ac

Quick connect - PCF Series

Tyco Electronics

- Compact size
- High surge voltage
- Sensitive coil
- **CSA** and **TUV** Approved, **UL** Recognised

Contact arrangement	SPNO
Contact current rating	25A @ 250V ac resistive
Contact current rating	20A @ 250V ac inductive
Power - Coil	900mW
Surge between coil and contacts	10,000V
Dielectric voltage between coil and contacts	5,000V
Contact material	Silver Tin Oxide

H = 26.5, W = 30.4, D = 16mm

Mftrs. List No.	Order Code	Mftrs. List No.	Order Code
PCF-112D2M	965-9447	PCF-124D2M	965-9455

411723

COIL Voltage	Ω	Order Code	Price Each 1+	20+	50+	100+	250+
12V	160	**965-9447**					
24V	640	**965-9455**					

20/40A, Single Pole

V23076 Series

Tyco Electronics

- Immersion cleanable (waterproof)
- PCB terminals
- Power Relay K

Contact arrangment	SPDT, 1 C/O (1 Form C)
Contact rating	40A into resistive load
Switching Current, Min.	1.0A
Coil Power (nominal)	1.6W
Contact Material	Silver

L = 26.5, W = 21.5, H = 21.5 mm

Order Code	Mftrs. List No.	Order Code	Mftrs. List No.
102-4021	V23076A1001C133	102-4022	V23076A1022C133

239979

COIL Volts	Ω	Order Code	Price Each 1+	20+	50+	100+	250+
SPDT C/O contacts - V23076 Series							
12V dc	90	**102-4021**					
24V dc	362	**102-4022**					

Micro Power K - 30A

V23086 Series

Tyco Electronics

- Sealed to **IP67**
- PCB Terminals
- Immersion cleanable
- Small size with minimum weight
- Double version with two seperate systems

H = 9.9, W = 12, D = 12.9 mm H = 9.9, W = 23.6, D = 12.9 mm

Continuous current (NC @ 23°C)	25A	@ 85°C	15A
Switching current (on/off)	40A / 30A	Max. switching rate	50Hz
Power consumption (single/double)	0.55W / 0.57W	Operating temperature	-40 to 105°C
Contact Material	$AgSnO2_2$	Protection class	IP67

Order Code	Mftrs. List No.	Type	Order Code	Mftrs. List No.	Type
965-9013	V23086C1001A403	Single	965-9021	V23086C2001A403	Double

411407

COIL Volts	Ω	Order Code	Price Each 1+	20+	50+	100+	250+
SPDT							
12V	254	**965-9013**					
2 x SPDT							
12V	254	**965-9021**					

High Power - 100A

SPST - NO (1 Form X)

Tyco Electronics

- Hermetically sealed - Intrinsically safe
- No contamination or oxidation of contacts, including long periods of non-operation
- 8kV isolation between open contacts
- Designed and built in accordance with AIAG QS9000
- Flying leads (0.4m) for coil connections (Not shown)

H= 52.52mm (body), 57.96mm (OA)
Dia=39.5 (body) Mounting holes=46.3mm

Contact arrangement	(1 Form X)	Time, operate/release	40 / 10ms
Continuous contact current	100A	Life, mechanical	1 million cycles
Contact voltage range	9 to 16VDC	Temperature range	-40 to 85°C

480785

COIL Voltage	Mftrs. List No.	Order Code	Price Each 1+	5+	10+
Bottom Mount					
12V	LEV100A4ANG	**143-6198**			
Side Mount					
12V	LEV100A4ANH	**143-6199**			

High Power - 500A

SPST - NO

Tyco Electronics

- High contact rating - 2000A interupt at 320V dc
- Built in coil economiser - 1.7W holding power at 12V dc
- Hermetically sealed - Intrinsically safe
- No coil back EMF
- Auxillary contact version - Monitor for contact position
- **CE** marked and **UL** Recognised

H= 55.81mm (body), 72.3mm (OA)
Dia=51.9 (body) Mounting holes=68.28mm

Contact arrangement	SPST-NO - 1 Form A	Time, operate/release	15 / 12ms
Continuous contact current	500A @ max. 50°C	Life, mechanical	1 million operations
Contact voltage range	12 to 500V dc	Temperature range	-40 to 85°C

414056

COIL Voltage	Mftrs. List No.	Order Code	Price Each 1+	20+
SPST - NO				
9 to 36VDC	EV200AAANA	**991-3971**		
SPST - NO with aux. contacts (SPST-NO)				
9 to 36VDC	EV200HAANA	**991-3980**		

Automotive Relays

Single Pole

V23134 Series

Tyco Electronics

Contact Ratings - SPNO	12V - 240A on/70A off 24V - 240A on/25A off
Contact Ratings - SPCO	(12V & 24V) - 120A on/60A off
Switching Current, Min.	1.0A @ 5V
Coil Power (nominal)	1.58W
Contact Material	Silver

H=24.9, W=25.9, D=25.9mm

- Dust protected
- Plug-in terminals
- Power Relay F4
- IP 54 to IEC 529
- With or without mounting bracket

Order Code	Part No.	Mftrs. List No.	Order Code	Part No.	Mftrs. List No.
991-3785	1393304-9	V23134J1052D642	117-5079	5-1393302-8	V23134A1052C643
991-3793	1-1393304-1	V23134J1053D642	117-5080	6-1393302-3	V23134A1053C643
991-3769	7-1393303-3	V23134J52D642	208-5455	3-1393302-6	V23234A0001X038-EV-144
991-3777	9-1393303-7	V23134J53D642	162-9100	1-1414167-0	V23134A56X432

239988

COIL Volts	Ω	Order Code	Price Each 1+	20+	50+	100+	250+
SPNO contacts - with Mounting Bracket							
12V	91	**991-3785●**					
24V	332	**991-3793●**					
SPNO contacts							
12V	91	**991-3769●**					
24V	332	**991-3777●**					
SPCO contacts - with Mounting Bracket			1+	20+	50+	100+	250+
12V dc	91	**117-5079●**					
24V dc	332	**117-5080●**					
Coil Suppression Versions							
SPCO contacts - Diode Suppression							
12V	90	NEW **208-5455●**					
24V	268	**162-9100●**					

Automotive Relay Sockets

ISO - V2333 Series

Tyco Electronics

- Solderable connectors
- Enables relays with plug-in terminals to be mounted on leadframes
- Alows easy rellacement in case of maintenance
- 23°C ambient temperature
- 20 - 50% RH

Micro ISO
H = 14.5, W = 15.2,
D = 22.6mm

Mini ISO
H = 14.5, W = 24,
D = 26.5mm

Order Code	Part Number	Mftrs. List No.
162-9093	2-1904045-7	V23333Z0002B049
162-9094	2-1904045-4	V23134J1052D642

519459

Type	Order Code	Price Each 1+	20+	50+	100+	250+
Micro ISO	**162-9093●**					
Mini ISO	**162-9094●**					

10/20A, Single Pole

V23072 Series

Tyco Electronics

- Immersion cleanable (waterproof)
- PCB terminals
- Power Relay K

Contact arrangment	SPDT, 1 C/O (1 Form C)
Contact rating	5A into resistive load
Switching Current, Min.	1.0A
Coil Power (nominal)	1.11W
Contact Material	Silver

Order Code	Mftrs. List No.
102-4023	V23072C1062A303

L = 17.5, W = 15, H = 19.5 mm

239986

COIL Volts	Ω	Order Code	Price Each 1+	20+	50+	100+	250+
SPDT C/O contacts - V23072 Series							
24V dc	520	**102-4023●**					

High Current Automotive Relay

Star Point

Tyco Electronics

H = 17.5, W = 32,
D = 18mm

- Full, symmetric star-point disconnection of an electric (Power steering) motor
- Limiting continuous current 90A
- Disconnection of high over-currents up to 200A
- Contact arrangement fulfills 42V power net requirements
- Resistant to high ambient temperature up to 135°C
- Contact resistance typically less than 2 mR per path of load current 20A

Contact arrangement	3NO - 1 Tripple make contact/Form 3	Coil Voltage	12V
Contact Rating, current	NC - 15A, NO - 20A	Coil Resistance	1.5W
Contact Rating, voltage	12V	Temperature Range	-40 to +125°C
Operate/ Release Time	20ms/10ms		

Order Code	Part Number	Mftrs. List No.
162-9096	1-1414704-0	V23135W1001A309

519556

COIL Volts	Ω	Order Code	Price Each 1+	20+	50+	100+	250+
12V	150ohm	**162-9096●**					

Battery Disconnect Switch

Tyco Electronics

- Limiting continuous current 190 A at 85°C
- Electrically settable and resettable ON/OFF bistable device
- Suitable for voltage levels up to 42V
- High peak current carrying capability up to 1500 A

Dimensions: W=83, H=33, D=86mm

Applications:
- Preheating systems (e.g. for diesel engines, catalytic converters)
- Battery disconnection to prevent fire caused by short circuits during an accident
- Dual battery applications provide the start reliability by a separate starter battery
- Energy-management
- Seasonal, service and transport deactivation

Contact Configuration	Form X	Contact Material:	Silver Based
Rated Voltage	12V or 24V	IP Rating	54
Rated Current	190A		

Mftrs. List No.	Order Code	Mftrs. List No.	Order Code
V23130C2021A412	177-0635	V23130C2421A431	177-0636

549422

COIL Volts	Ω	Order Code	Price Each 1+	5+	10+
12V dc	4.7	**177-0635●**			
24V dc	19.9	**177-0636●**			

Automotive Power

SPCO - 30A

IMO

- 30A, 14V dc rated
- Plug-in quick connect terminals

H = 25.4, W = 23.0, D = 15.5mm

Contact arrangement	SPNO	Time, operate/release	10ms/10ms
Contact rating	30A @ 14V dc	Power, operating	1.2W
Power, switching max	540W	Resistance, insulation	
Voltage, switching max	27V dc	Temperature, operating	-40°C to 125°C

Order Code	Mftrs. List No.	Order Code	Mftrs. List No.
109-4086	SRZ-1CT-DL-12VDC	109-4088	SRZ-1CT-DL-24VDC

246162

COIL Volts	Ω	Order Code	Price Each 1+	50+	100+	250+	500+
SPCO Type							
12V dc	680	**109-4086●**					
24V dc	360	**109-4088●**					

RoHS ● Compliant ▲ Non-compliant

15/25A, Single Pole

V23074 Series

Tyco Electronics

- Dust protected
- Plug-in terminals
- Micro Power Relay A

Contact arrangment	SPDT, 1 C/O (1 Form C)
Contact rating	25A into resistive load
Switching Current, Min.	1.0A
Coil Power (nominal)	1.37W
Contact Material	Silver Tin Oxide

Order Code	Mftrs. List No.
119-7662	V23074A1001A403
177-0632	V23074A1002A403

L=23, W =15.5, H=25.4 mm

239987

COIL Volts	Ω	Order Code	Price Each 1+	20+	50+	100+	250+
SPDT C/O contacts - V23074 Series							
12V dc	105	**119-7662**					
24V dc	347	NEW **177-0632**					

Safety Relays

Safety Relays

Tyco Electronics

Dimensions: W=55, H=16.5, D=16.5mm

- 4 or 6 pole safety relay
- Rated current 8 A
- Forcibly guided contacts according to EN50205

Applications:

- Emergency shut-off
- Press control
- Machine control
- Elevator and escalator control
- Safety modules

Rated Voltage	250V ac	Contact Material:	
Rated Current	8A	800mW Versions	$AgSnO_2$ + 0,2 µm Au
Max. Breaking Capacity AC	2000 VA	1200Mw Versions	$AgSnO_2$

Mftrs. List No.	COIL Volts (V dc)	Ω	No. of Poles	Contact Configuration	Rated Coil Power (mW)
SR6D4012	12	120	4	2NO / 2NC	1200
SR6D4024	24	480	4	2NO / 2NC	1200
SR6M4024	24	480	4	3NO / 1NC	1200
SR6A6K12	12	180	6	3NO / 3NC	800
SR6B6K12	12	180	6	4NO / 2NC	800
SR6A6K24	24	720	6	3NO / 3NC	800
SR6B6K24	24	720	6	4NO / 2NC	800

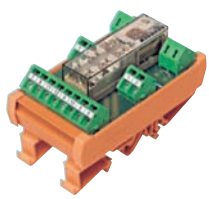
549418

Mftrs. List No.	Order Code	Price Each 1+	20+	50+	100+	250+
SR6D4012	**177-0622**					
SR6D4024	**177-0623**					
SR6M4024	**177-0625**					
SR6A6K12	**177-0626**					
SR6B6K12	**177-0628**					
SR6A6K24	**177-0629**					
SR6B6K24	**177-0630**					

8A PCB - SR6Z Safety Relay on DIN Rail

Forcibly Guided Contacts

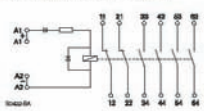
Tyco Electronics



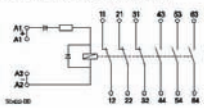
L = 87, W = 46, H = 58mm

- 6 pole safety relay
- Forcibly guided contacts to EN50205
- Rated current 8A
- 6 kV surge resistance between poles
- **CE** approved
- Spring connectors

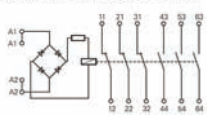
DC module, 4 NO+2 NC version



DC module, 3 NO+3 NC version



AC/DC module, 3 NO+3 NC version



Mftrs. List No.	SR6ZA024=991-3491
	SR6ZA730=177-0631
	SR6ZB024=991-3505

Contact Rating	8A	Mechanical life	10 x 10^6 operations
Contact Material	$AgSnO_2$	Temperature Range	-25°C to +50°C
Breaking Capacity - ac	2000 VA		

413973

Contact Configuration	Coil Volts	Order Code	Price Each 1+	20+	50+
3NO / 3NC	24V dc	**991-3491**			
3NO / 3NC	230V ac	**177-0631**			
4NO / 2NC	24V dc	**991-3505**			

6A, 2 Pole

V23047 Series

Tyco Electronics

- Low cost SR2M Safety Relay
- Forcibly guided contacts according to EN 50205 - Type B
- 700mW coil
- **UL** recognised, **TUV** approved, **VDE** Component mark

Contact arrangment	DPDT, 2 C/O (2 Form C)
Contact rating	6A @ 250V ac resistive
Contact Material	Silver Nickel Alloy
Relay Base	Order Code **119-7685**

L = 29, W = 12.6, H = 25.4 mm

Order Code	Mftrs. List No.	Order Code	Mftrs. List No.
117-5062	V23047-A1012-A501	117-5064	V23047-A1024-A501

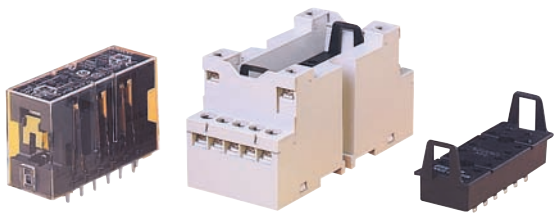
239929

COIL Volts	Ω	Order Code	Price Each 1+	20+	50+	100+	250+
DPDT C/O contacts - V23047 Series							
12V dc	206	**117-5062**					
24V dc	823	**117-5064**					

6A Plug-In G7S Series

G7S Series Positively Guided Contacts

OMRON



Relay: L=62, W=22.5, H=37
Din Rail Socket: L=90, W=40, H=47
PCB Socket

- 4NO + 2NC and 3NO + 3NC versions available
- Forcibly guided contacts
- Contact clearance of >70.5mm maintained at all times
- Conforms to **EN50205**

Mftrs. List No:	Order Code	Mftrs. List No:	Order Code
G7S-4A2B 24VDC	118-1248	P7S-14F	137-2570
G7S-3A3B 24VDC	118-1249	P7S-14P	137-2571

COIL Volts	Ω	Order Code	Price Each 1+	20+	100+
4NO+2NC					
24V dc24	800	**118-1248**			
3NO+3NC					
24V dc24	800	**118-1249**			
Sockets					
Rail DIN/Surface		**137-2570**			
PCB		**137-2571**			

207039

6A, SF4 Series

Positively Guided Contacts

Panasonic

- Low profile compact packages with PCB terminals
- Now with twin contacts (4NO + 4NC)
- **IP67, IP30**(breathing hole open) sealed
- Approved to **TUV, SEV** and **CSA**, **UL** Recognised
- Overvoltage category as per **IEC 60664-1 III/4 kV**
- Rated voltage in V as per **IEC 60664-1** basic insulation

SF4 Series : L=53.3, W=33.4, H=16.5

4 pole safety relays with forced operation contacts, such that in case of welding of one of the contacts, associated open contacts cannot close.

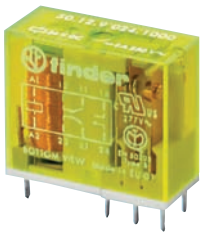
Contacts arrangement	4PCO	Max. switch frequency	10 Hz (without load)
Contact rating (max)	6A @ 250V ac/30V dc	Coil operating range	75 - 120%
Switch voltage (max)	440V	Temperature range	-40 to +70°C
Power consumption	500mW		

270977

COIL Volts	Ω	Mftrs. List No.	Order Code	Price Each 1+	20+	100+
12V dc	288	SF4-D-12	**438-8392**			
24V dc	1.152	SF4-D-24	**438-8409**			

DPCO 8A

50 Series - Forcibly Guided Contacts



- High physical seperation between adjacent contacts
- 8mm, 6 kV (1.2/50 µs) isolation, coil-contacts
- Flux proof: RT II
- Approved to **CE, IMQ** and **UL** Recognised

H = 25, W = 29, D = 12.4mm

Contact arrangement	DPDT - CO	Coil consumption	700mW
Rated contact current/Max. peak current	8A / 15A	Operate/Release	10 / 4ms typical
Rated contact voltage	250V	Temperature range	-40 to 70°C
Contact Material	AgNi		

Order Code	Mftrs. List No.	Order Code	Mftrs. List No.
176-5083	50.12.9.005.1000	132-9681	50.12.9.024.1000
132-9680	50.12.9.012.1000		

458256

COIL Volts	Ω	Order Code	Price Each 1+	10+	50+	100+	250+
5V	35	**176-5083●**					
12V	205	**132-9680●**					
24V	820	**132-9681●**					

8A, 4 Pole - Safety

SR4 Series

- Very small footprint
- Forcibly guided contacts according to EN 50205
- 2 N/O + 2 N/O and 3 N/O + 1 N/C versions available
- Washtight to **IEC 61810** RTIII
- **UL**(United States and Canada) Recognised and **VDE** approved

H = 16, W = 40, D = 13 mm

Type of contact	3NO / 1NC, 3NO / 1NC	Minimum contact load	>50mW
Continuous thermal load	8A	Contact resistance	≤100 mR/1A/24V dc ≤20 R/10mA/5V dc
Rated voltage	250V ac	Operating temperature	-25 to 70°C
Breaking voltage (max)	440V ac	Mechanical life	≥ 10,000,000 Operations
Max breaking capacity	2000 VA		

Order Code	Mftrs. List No.	Order Code	Mftrs. List No.
117-5092	SR4D4012	117-5094	SR4M4012
117-5093	SR4D4024	117-5095	SR4M4024

311624

COIL Volts	Ω	Order Code	Price Each 1+	20+	50+	100+	250+
2 N/O + 2 N/C contacts							
12V	180	**117-5092●**					
24V	720	**117-5093●**					
3 N/O + 1 N/C contacts							
12V	180	**117-5094●**					
24V	720	**117-5095●**					

10A PCB - SF2 Series

Positively Guided Contacts

- Low profile compact packages with PCB terminals
- 2NO + 2NC contacts
- **IP67** sealed
- Approved to **TUV, SEV** and **CSA**, **UL** Recognised
- Complies with **IEC255**

2 pole safety relays with forced operation contacts, such that in case of welding of one of the contacts, associated open contacts cannot close.

Contacts arrangement	DPCO	Max. switch frequency	10Hz
Contact rating (max)	10A10	Coil operating range	75-120%
Switch voltage (max)	440V	Temperature range	-40 to +70°C
Power consumption	500mW		

207011

COIL Volts	Ω	Mftrs. List No.	Order Code	Price Each 1+	25+	50+
12V dc	288	SF2-12V	**625-875●**			
24V dc	1.152	SF2-24V	**112-4064●**			

10A with Contact Indicator

MK-S Series

- DPDT and 3PDT contact
- Built in operation indicator
- Up to 10A switching on the NO contacts
- **UL** Recognised

Contact rating (resistive)	N.O. contact	10A @ 250V ac / 30V dc
	N.O. contact	5A @ 250V ac / 30V dc
Contact rating (inductive pf 0.4)	N.O. contact	7A @ 250V ac
Contact material		AgSnIn
Dielectric strength		2500V
Operate/Release		ac 20ms, dc 20ms/20ms
Coil consumption		2.7VA (ac), (dc)
Coil operating range		80% - 110%
Temperature range		-40°C to 60°C

H=52.5, W=34.5, D=34.5

535263

Mftrs. List No.	COIL Volts	Ω	Order Code	Price Each 1+	20+	100+	500+
DPDT							
MKS2PIAC24	24V dc	48.4	**169-1482●**				
MKS2PIAC230	230V dc	6.17k	**169-1484●**				
MKS2PIDC24	24V dc	430	**169-1485●**				
3PDT							
MKS3PI5AC24	24V dc	62	**169-1486●**				
MKS3PI5AC110	110V dc	1.24k	**169-1487●**				
MKS3PI5AC230	230V dc	6.17k	**169-1488●**				
MKS3PI5DC24	24V dc	430	**169-1489●**				

5A Plug In

R10 Series - Form C contacts

Order Code	Mftrs. List No.	Order Code	Mftrs. List No.
122-7085	R10-E1X2-V700	122-7092	R10-E1X4-V2.5
122-7089	R10-E1Y2-V700	122-7093	R10-E1Y4-V185
122-7090	R10-E1X4-V185	122-7094	R10-E1Y4-V700
122-7091	R10-E1X4-V700		

H = 30.15, W = 24.13, D = 18.67mm

Contact arrangement	DPCO / DPCO
Contact Style and Rating - X versions	Single Stud Contact - Max 5A @ 115VAC or 28VDC
Contact Style and Rating - Y versions	Single Stud Contact - Max 3A @ 115VAC or 28VDC
Power - Coil	500mW
Dielectric Strength	1000VAC
Case Style	Non-sealed - Polycarbonate
Terminals and Mounting	Solder/plug-in - Terminals with Plug-in / Solder Terminals
Operating Temperature	-55 to 75°C
Approvals	CSA and UL Recognised

443336

COIL Volts	Ω	Order Code	Price Each 1+	20+	50+	100+
DPCO, 5A						
24V	700	**122-7085●**				
DPCO, 3A						
24V	700	**122-7089●**				
4PCO, 5A						
12V	185	**122-7090●**				
24V	700	**122-7091●**				
48V	2.5	**122-7092●**				
4PCO, 3A						
24V	700	**122-7094●**				

Cradle Relay Sockets and Accessories

Terminal Type	PC
Grounding Provision	Yes
Contact Material	Copper Tin
Plating, Contact Mating Area	Silver
Body Material	Polycarbonate

2 pole PCB Socket & clip 6 pole PCB Socket & clip
4 pole PCB Socket & clip

241631

	Order Code	Price Each 1+	20+	50+	100+
Cradle Socket					
2 pole	**119-7663●**				
4 pole	**119-7664●**				
6 pole	**119-7665●**				
Clip, Cradle Sockets					
2 pole	**117-5089●**				
4 pole	**117-5090●**				

RoHS ● Compliant ▲ Non-compliant

5A Miniature Plug In - HY Series

IMO

- 4 Pole changeover with manual test button
- **CSA, TUV**, and **VDE** approved, **UL** Recognised
- Gold flashed silver nickel contacts for high reliability

Contact arrangement	4PCO	Operate/release time	25ms
Contact rating	5A @ 250V	Coil operating range	80% - 110%
Temperature range	-55°C - +70°C	Coil consumption	1.2VA

207089

COIL Volts	Ω	Order Code	Price Each 1+	20+	100+	250+	500+
4PCO with LED Indicator							
12V ac	46	**109-3978●**					
24V ac	184	**109-3979●**					
110V ac	4.55	**109-3980●**					
230V ac	14.4	**109-3981●**					
12V dc	160	**109-3982●**					
24V dc	650	**109-3983●**					
Sockets + Clips							
DIN Rail Socket		**993-9237●**					

5A/10A Miniature - MY2(S), MY2N(S), MY4N(S)

OMRON

With Mechanical and LED Indicators, Labelling Facility, Test Button, ac and dc Suppression

- Versatile, full featured miniature power relays
- DPCO and 4PCO contact arrangements
- All relays have mechanical flag indication and label facility
- Other features include - LED indication, push to test button, CR or diode suppression
- **VDE** and **CSA** approved, **UL** Recognised

L=28, W=21.5, H=36

Contact arrangement	DPCO/4PCO	Coil consumption	0.9-1.2VA ac, 0.9 W dc
Contact rating	DPCO, 10A @ 250V ac/30V dc 4PCO, 5A @ 250V ac/30V dc	Operate/release time	20ms
		Coil operating range	80% - 110%
Contact material	DPCO, Silver/4PCO, Silver, Gold Flashed Silver	Temperature range	-55°C - +70°C

207048

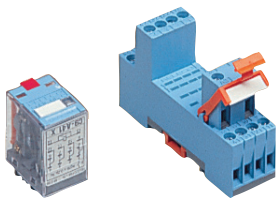
COIL Volts	Ω	Order Code	Price Each 1+	20+	100+	250+	500+
DPCO - MY2(S) Series							
12V dc	160	**186-235●**					
24V dc	636	**186-247●**					
12V ac	46	**186-259●**					
24V ac	180	**186-260●**					
220/240V ac	18.79	**186-284●**					
DPCO with LED Indication - MY2N(S) Series							
24V dc	636	**186-302●**					
240V ac	18.79	**186-340●**					
DPCO with LED Indicator and Push to Test Button - MY2IN(S) Series							
12V dc	160	**186-351●**					
24V dc	636	**186-363●**					
24V ac	180	**186-387●**					
240V ac	18.79	**186-405●**					
DPCO with LED Indicator and Diode Suppression - MY2N-D2(S) Series							
24V dc	636	**186-429●**					
DPCO Latching -MY2(K) Series							
	Set/Reset		1+	20+	100+	250+	500+
24V dc	470/940	**134-0951●**					
4PCO - MY4(S) Series							
12V dc	160	**186-454●**					
24V dc	636	**186-466●**					
48V dc	2.56	**315-8846●**					
110V dc	11.1	**315-8858●**					
6V ac	12.2	**315-8810●**					
12V ac	46	**186-478●**					
24V ac	180	**186-480●**					
50V ac	788	**315-8822●**					
120V ac	4.43	**186-491●**					
240V ac	18.79	**186-508●**					
Volts	Ω	**Order Code**	1+	20+	100+	250+	500+
4PCO with LED Indication - MY4N(S) Series							
24V dc	636	**186-521●**					
120V ac	4.43	**186-557●**					
240V ac	18.79	**186-569●**					

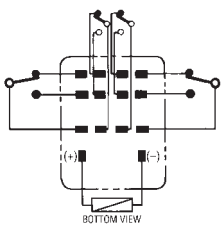
COIL Volts	Ω	Order Code	Price Each 1+	20+	100+	250+	500+
4PCO with LED Indication and Push to Test Button - MY4IN(S) Series							
24V dc	636	**186-582●**					
24V ac	180	**186-600●**					
120V ac	4.43	**186-612●**					
240V ac	18.79	**186-624●**					
4PCO with LED Indication and Diode Suppression - MY4N-D2(S) Series							
24V dc	636	**186-648●**					
Sockets							
DPCO Surface/DIN rail		**134-0952●**					
DPCO PCB		**118-1252●**					
4PCO Surface/DIN rail		**134-0953●**					
4PCO PCB		**118-1253●**					
Clips		**Order Multiple = 2**	2+	20+	100+		
DPCO Surface/DIN							
without test button (PK2)		**103-923●**					
Clips		**Order Multiple = 5**	5+	20+	100+		
DPCO Surface/DIN							
with test button		**186-685●**					
DPCO PCB		**186-703●**					
4PCO Surface/DIN rail (PK2)		**103-923●**					
4PCO PCB		**137-2565●**					
			2+	20+	100+		
		103-923●					
		186-685●					
		186-703●					
		103-923●					
		137-2565●					

5A Miniature - Full Featured

RELECO

QRC C9 series





H=37, W=21, D=28 H=46.5, W=22.5, L=75

A range of 4PCO relays with features including a colour lockable "Pull to test" button, lamp indication of coil status, mechanical flag indication of contact position and labelling facility.

The 24V dc version is also available with incorporated diodes to protect the relay from incorrect connection and to protect external equipment such as PLC's from spikes generated by the relay on switch off.

The sockets are a space saving 22.5mm wide allowing maximum packing density. The DIN rail socket features touch-proof terminals, retention clip with identification label, and bracket allowing surface or DIN rail mounting.

All relays and socket have **CSA**, **NEMKO**, **SETI**, **SEMKO**, **DEMKO** and **Lloyd's** approval and are **UL** Recognised

Contact arrangement	4PCO	Operate/release time	10ms/6ms
Contact rating	5A	Coil operating range	80% - 110%
Max. switched voltage	250V ac	Temperature range	-20°C to 60°C
Max. switched power	660VA/75W	Cover	Clear Polycarbonate, **UL94V-0**
Contact material	Silver Nickel, Gold Flashed	Relay base	Grey valox, **UL94V-0**
Coil consumption	1.5VA/1W	Socket	Blue noryl, **UL94V-1**

213429

COIL Volts	Ω	Mftrs. List No.	Order Code	Price Each 1+	20+	100+	250+
4PCO							
24V ac	160	C9-A41X24A	**108-6860●**				
115V ac	3.5	C9-A41X115A	**108-6861●**				
230V ac	13.8	C9-A41X230A	**108-6862●**				
24V dc	640	C9-A41X24D	**108-6863●**				
24V dc							
(diodes)	640	C9-A41FX24D	**108-6864●**				
Socket							
Surface DIN rail		S9-M	**108-6865●**				

6/10/12A Miniature - PT Series

Tyco Electronics

- 2, 3 and 4 pole contact arrangements
- Industry standard terminal layout
- Cadium free AgNi contacts
- Mechanical Flag
- VDE approved

Dimensions: L=28, W=22.5, H=29mm

6/10/12A Miniature - PT Series - continued

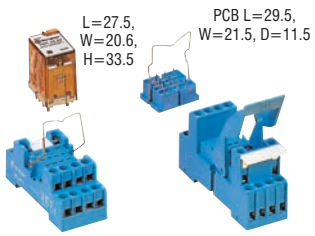
Contact rating	DPCO, 12A @ 240V ac 3PCO, 10A @ 240V ac 4PCO, 6A @ 240V ac	Operate/release time	15ms/10ms
Contact material	AgNi 90/10	Temperature range	-40°C to 70°C
Coil consumption	1VA ac, 750mW dc		

622586

COIL Volts	COIL Ω	Mftrs. List No.	Order Code	Price Each 1+	20+	50+	100+	250+
DPCO - PT27 Series								
24V	777	PT270024	**117-5056●**					
230V	19.465	PT270730	**117-5058●**					
3PCO - PT37 Series								
24V	777	PT370024	**307-2745●**					
230V	19.465	PT370730	**307-2770●**					
4PCO - PT57 Series								
24V	777	PT570024	**307-2782●**					
24V	192	PT570524	**117-5059●**					
115V	48.45	PT570615	**307-2800●**					
230V	19.465	PT570730	**307-2812●**					
PCB Mount Socket for PT Relays								
4 Pole Relay Socket		PT78604	**113-2590●**					
Clip for 4 Pole Relay Socket		PT28802	**119-7655●**					
Surface/DIN Sockets								
2PCO		PT78720	**991-3807●**					
3PCO		PT78730	**991-3815●**					
4PCO		PT78740	**991-3823●**					
2PCO logical		PT78722	**991-3858●**					
4PCO logical		PT78742	**991-3866●**					
Clips								
Metal		PT28800	**307-3063●**					
Plastic		PT17016	**991-3831●**					
Marking Tab		PT17040	**991-3840●**					
Modules								
Diode		PTMT00A0	**991-3556●**					
LED 24V ac/dc		PTML0524	**991-3564●**					
LED 155/230V ac		PTML0730	**991-3572●**					

7A Miniature - 5534 Series

With Contact Indicator, Test Button, Module Facility



Screw Term.
L=75, W=27, H=43
Mounting holes=3.2 dia

35mm rail/surface socket - Clamp
L=66, W=29.2, H=29.5
Mounting holes=3.2 dia.

- 4 pole changeover with manual test button and mechanical flag indicator
- Standard 35mm rail/surface socket has touch proof terminals to IP20 and accepts one module for added facilities
- Slim line 35mm rail/surface socket has rising clamp terminals, leaf connection for positive relay connection and accepts standard 40 series modules page 735723
- All sockets are complete with clips
- DIN rail sockets have a user legendable removable identification tab
- Relays approved to **IMQ**, **SEMKO**, **CSA**, **DEMKO**, **VDE**, **SEV** and **UL** Recognised
- Sockets approved to **CSA** and UL Recognised. PCB type also **SEV** approved

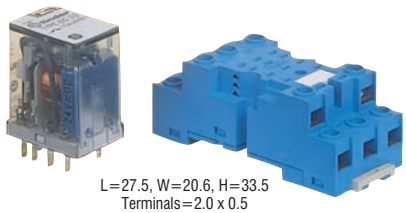
		Sockets		
Contact arrangement	4PCO			
Contact rating	7A @ 250V ac	Load rating	PCB & Panel	10A 250V
Contact material	Silver Nickel	Screw	DIN rail/surface	10A 250V
Coil consumption	1.5VA, 1W	Clamp	DIN rail/surface	10A 250V
Operate/release time	9ms/3ms	Housing	PCB & Panel	Blue noryl, **UL94V-0**
Coil operating range	80% - 110%		DIN rail/surface	Blue polymeride/glass fibre
Temperature range	-40°C to 70°C			

622638

COIL Volts	COIL Ω	Mftrs. List No.	Order Code	Price Each 1+	25+	100+	250+	500+
4PCO - 5534 Series								
12V ac	50	55.34.8.012.0040	**116-9219●**					
24V ac	190	55.34.8.024.0040	**116-9220●**					
48V ac	770	55.34.8.048.0040	**116-9222●**					
110V ac	4k	55.34.8.110.0040	**116-9223●**					
230V ac	17k	55.34.8.230.0040	**116-9224●**					
12V dc	140	55.34.9.012.0040	**116-9225●**					
4PCO - 5534 Series								
24V dc	600	55.34.9.024.0040	**116-9226●**					
48V dc	2.4k	55.34.9.048.0040	**116-9227●**					
110V dc	12.5k	55.34.9.110.0040	**116-9228●**					
Sockets with Clips								
PCB		94.14SMA	**116-9229●**					
35mm rail/surface		94.74SMA	**913-7653**					
Modules								
Diode 6 to 220V dc		99.01.3.000.00	**116-9329●**					
Diode + LED, 6 to 24V dc		99.01.9.024.90	**116-9330●**					
Diode 6 to 24 ac/dc		99.01.0.024.50	**116-9332●**					
LED, 110 to 240V ac/dc		99.01.0.230.50	**116-9337●**					
Accessories								
Marking Tab		94.84.3SPA	**913-7661●**					

10A Minature - 5532, 5533 Series

With Module Facility



L=27.5, W=20.6, H=33.5
Terminals=2.0 x 0.5

General purpose 2 pole and 3 pole changeover relays identical in size to Finder 5534 Series relays. The 2 pole relays are approved to **IMQ, SEMKO, CSA, SEV, VDE, BEAB** and **UL** Recognised. The 3 pole relays are approved to **VDE, SEV**(8A) **CSA** (8A) and **SEMKO** (8A).

The DIN rail/surface sockets have touchproof terminals to **IP20** and will accept an additional module to give the extra facilities of protection diode and/or LED indication. The sockets are approved to **CSA**, **SEV** and are **UL** Recognised.

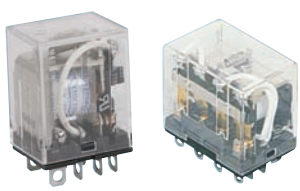
Contact arrangement	DPCO/3PCO	Coil consumption ac/dc	1.5 VA/1W
Contact rating	10A @ 250V	Coil operating range	80/110%
Contact material	Silver Nickel	Socket load rating	10A 250V ac

55.32.8.012.0000=116-9231	55.32.8.230.0000=116-9236	55.33.8.230.0000=116-9240
55.32.8.024.0000=116-9232	55.32.9.012.0000=116-9237	55.33.9.012.0000=116-9241
55.32.8.048.0000=116-9234	55.32.9.024.0000=116-9238	55.33.9.024.0000=116-9242
55.32.8.110.0000=116-9235	55.33.8.024.0000=116-9239	

207095

COIL Volts	COIL Ω	Order Code	Price Each 1+	25+	100+	250+	500+
DPCO - 5532 Series							
12V ac	—	**116-9231●**					
24V ac	—	**116-9232●**					
110V ac	—	**116-9235●**					
230V ac	—	**116-9236●**					
12V dc	140	**116-9237●**					
24V dc	600	**116-9238●**					
3PCO - 5533 Series							
24V ac	—	**116-9239●**					
230V ac	—	**116-9240●**					
12V dc	140	**116-9241●**					
24V dc	600	**116-9242●**					
Sockets with Clips							
DPCO PCB		**116-9243●**					
DPCO 35mm rail/surface		**116-9246●**					
3PCO PCB		**116-9247●**					
3PCO 35mm rail/surface		**116-9248●**					

10A - LY2/LY4 Series



DPDT 4PDT

- Equipped with arc barrier
- Dielectric strength 2000V
- Plug-in/solder terminals, 5.0 x 0.5mm
- **CE**, **SEV**, **LR**, **VDE** and **CSA** approved, **UL** Recognised

Contact arrangement	DPCO/4PCO	Dielectric strength	2000V rms
Contact rating (resistive)	10A @ 230V ac 10A @ 24V dc (resistive)	Coil operating range	85% - 110%
		Temperature range	-5°C - +45°C
Contact material	Silver Cadmium Oxide		

207121

Order Multiple=1

COIL Volts	Ω	Mftrs. List No.	Order Code	Price Each 1+	20+	100+
DPDT - LY2 Series						
110V ac	4.43	LY2 110/120 VAC	**134-0932**			
240V ac	15.97	LY2 220/240 VAC	**134-0933**			
24V dc	650	LY2 24VDC	**134-0934**			
12V dc	160	LY2 12VDC	**134-0935**			
4PDT - LY4 Series						
110V ac	160	LY4 100/110 VAC	**134-0936**			
230V ac	9	LY4 230 VAC	**134-0937**			
12V dc	100	LY4 12 VDC	**134-0938**			
24V dc	350	LY4 24 VDC	**134-0939**			
2 Pole Sockets						
PCB		PT08-0	**118-1267**			
Surface/DIN rail		PTF08AE	**134-0941**			
4 Pole Sockets						
Chassis		PT14	**118-1268**			
PCB		PT14-0	**118-1271**			
Surface/DIN rail		PTF14AE	**134-0942**			
Order Multiple=5				5+	20+	100+
Clips						
Chassis/PCB		PYCP	**137-2565**			
Surface/DIN Rail (pair)		PYCA1	**103-923**			

16A, Faston Terminals

Tyco Electronics

RM 2 Series

- 2 pole 16A CO contacts
- Switching capacity up to 6000 VA
- AC or DC coil versions
- Mechanical indicator
- Quick connect 6.3mm terminals
- AgNi 90/10 contact material
- **VDE** Approved, **UL** Recognised

Body - H = 48.5, W = 38.5, D = 35.5mm

Contact arrangement	DPCO	Coil Consumption	1.3W - DC Coil, 2.3VA - AC Coil
Contact Rating	16A @ 400VAC	Temperature Range - DC Coil	-45 to +70°C
Operate/ Release	15ms/10ms	Temperature Range - AC Coil	-45 to +55°C

Order Code	Type No.	Mftrs. List No.	Order Code	Type No.	Mftrs. List No.
162-9027	RM225012	1415542-7	162-9029	RM225730	1415542-9
162-9028	RM225024	1415542-8			

519008

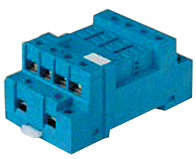
COIL Volts	Ω	Order Code	Price Each 1+	20+	50+	100+
12V dc	110	**162-9027**				
230V ac	8.3	**162-9029**				

12A - 5632/5634 Series

finder

With Module Facility

L=27.6, W=41, H=35.5



H = 33.5, W = 46, D = 78mm

General purpose 2-pole and 4-pole changeover power relays approved to **VDE, IMQ, CSA, NF, SEV**, **UL** Recognised

The 35mm rail/surface sockets have touchproof terminals to **IP20** and will accept an additional module to give the extra facilities of protection diode and/or LED indication.

Contact arrangement	DPCO/4PCO	Coil consumption	DPCO : 1.5VA, 1W
Contact rating (resistive)	12A @ 250V ac		4PCO : 2VA, 1.3W
Contact material	Silver Nickel	Coil operating range ac/dc	80% - 110%/85 - 110%
		Socket load rating	12A 250V ac

Mftrs. List No.			
	56.32.8.024.0000=176-5086	56.34.8.110.0000=116-9262	96.72SMA=116-9267
	56.32.8.230.0000=116-9259	56.34.8.230.0000=116-9263	96.14SMA=116-9268
	56.32.9.012.0000=116-9260	56.34.9.012.0000=116-9264	96.74SMA=116-9271
	56.32.9.024.0000=116-9261	56.34.9.024.0000=116-9265	96.02SMA=194-7917
	56.34.8.024.0000=176-5088	96.12SMA=116-9266	96.04SMA=194-7918

207099

COIL Volts	Ω	Order Code	Price Each 1+	25+	100+	250+
DPCO - 56.32 Series						
24V ac	190	**176-5086**				
230V ac	17k	**116-9259**				
12V dc	140	**116-9260**				
24V dc	600	**116-9261**				
4PCO - 56.34 Series						
24V ac	81	**176-5088**				
110V ac	1.9k	**116-9262**				
230V ac	7.7k	**116-9263**				
12V dc	123	**116-9264**				
24V dc	490	**116-9265**				
Sockets with Clips						
DPCO PCB		**116-9266**				
DPCO (Plate Clamp) Panel/35mm Rail		**116-9267**				
DPCO (Box Clamp) Panel/35mm Rail	NEW	**194-7917**				
4PCO PCB		**116-9268**				
4PCO (Plate Clamp) Panel/35mm Rail		**116-9271**				
4PCO (Box Clamp) Panel/35mm Rail	NEW	**194-7918**				

15A - Double Pole

Tyco Electronics

PT Faston Series

H=29, W=28, D=22.5mm

H=28.3, W=27.8, D=21.8mm

- 2 pole contact arrangement
- DC and ac coil versions
- DIN rail socket or flange mounting
- Cadmium free AgNi contacts
- Mechanical indicator
- **UL** Recognised

Contact Rating	10A ac @ 240V	Operate/ Release	20ms/15ms
Contact Material	AgNi 90/10	Temperature Range	-40 to +70°C

Mftrs. List No.	Order Code	Mftrs. List No.	Order Code
PTF20024	965-9358	PTF22524	965-9404
PTF20524	965-9366	PTF22615	965-9412
PTF20730	965-9382	PTF22730	965-9420
PTF22024	965-9390		

411021

COIL Volts	Ω	Order Code	Price Each 1+	20+	50+	100+	250+
Faston Series for Socket Mounting							
24V dc	777	**965-9358**					
24V ac	192	**965-9366**					
230V ac	19.465K	**965-9382**					
Faston Series with Flanged Mounting							
24V dc	777	**965-9390**					
24V ac	192	**965-9404**					
115V ac	4.845K	**965-9412**					
230V ac	19.465K	**965-9420**					

25A/30A/3.0 HP Motor Load

OMRON

G7L Series

Relay with mounting bracket fitted

DIN rail socket

L=52.5, W=33.5, H=47 (53 with 472-530 fitted)
Terminals: 6.35 x 0.8 x 11

A heavy duty power relay available in 1 or 2 pole format with 25A inductive rating, and UL rated at 3.0 HP motor load at 265V ac. Typical loads include motors, heaters, lighting controllers and lamps.
The relay may be either surface mounted using bracket 472-530 or DIN rail mounted using bracket 478-015. Terminal connections are by 0.250 push-on connectors. Alternatively the DIN rail/surface socket 478-003 has finger protected screw terminals.
Approved to **CSA**, **VDE** and **IEC**, **UL** Recognised.

Contact arrangement	SPNO/DPNO	Isolation (coil to contact)	4.0kVA
Contact rating	SPNO : 30A @ 220V ac (resistive)	Coil operating range	75% to 110%
	SPNO : 25A @ 220V ac (inductive)		
	DPNO : 25A @ 220V ac (resistive)		
	DPNO : 25A @ 220V ac (inductive)		
UL listing	3 HP motor load @ 265V ac	Temperature range	-25°C to 60°C
Max. switching capacity	5.5kVA	Coil consumption (nor.)	1.7 to 2.5VA, 1.9W

622302

COIL Volts	Ω	Mftrs. List No.	Order Code	Price Each 1+	20+	100+	250+
SPNO - G7L-1A-P Series							
24	303	G7L-1A-P 24AC	NEW **207-6379**				
100 to 120	5.16K	G7L-1A-P 100/120AC	NEW **207-6376**				
200 to 240	21K	G7L-1A-P 200/240AC	NEW **207-6377**				
24	303	G7L-1A-P 24DC	NEW **207-6381**				

Plug-In Relays - continued

25A/30A/3.0 HP Motor Load - continued

G7L Series - continued

COIL Volts	Ω	Mftrs. List No.	Order Code	Price Each 1+	20+	100+	250+
SPNO - G7L-1A-T Series							
200 to 240	21K	G7L-1A-T 200/240VAC	994-9640●				
12	75	G7L-1A-T 12VDC	994-9658●				
24	303	G7L-1A-T 24VDC	994-9666●				
SPNO - G7L-1A-TUB Series							
12	303	G7L-1A-TUB AC12	NEW 207-6386●				
24	75	G7L-1A-TUB 24AC	NEW 207-6384●				
200 to 240	21K	G7L-1A-TUB 200/240AC	NEW 207-6383●				
24	303	G7L-1A-TUB 24DC	NEW 207-6385●				
SPNO - G7L-2A-P Series							
12	75	G7L-2A-P 12AC	NEW 206-8380●				
24	303	G7L-2A-P 24AC	NEW 206-8384●				
100 to 120	5.26K	G7L-2A-P 100/120AC	NEW 206-8378●				
200 to 240	21K	G7L-2A-P 200/240AC	NEW 206-8383●				
6	18.9	G7L-2A-P 6DC	NEW 206-8387●				
12	75	G7L-2A-P 12DC	NEW 206-8381●				
24	303	G7L-2A-P 24DC	NEW 206-8385●				
48	1.22K	G7L-2A-P 48DC	NEW 206-8386●				
100	5.26K	G7L-2A-P 100DC	NEW 206-8379●				
DPNO - G7L-2A-T Series							
12	75	G7L-2A-T AC12	NEW 206-8389●				
24	303	G7L-2A-T 24VAC	994-9674●				
100 to 120	5.16K	G7L-2A-T 100/120VAC	994-9682●				
200 to 240	21K	G7L-2A-T 200/240AC	994-9690●				
6	18.9	G7L-2A-T DC6	NEW 206-8391●				
12	75	G7L-2A-T 12VDC	994-9704●				
24	303	G7L-2A-T 24VDC	994-9712●				
48	1.22K	G7L-2A-T 48DC	NEW 206-8388●				
100	5.26K	G7L-2A-T DC100	NEW 206-8390●				
DPNO - G7L-2A-TUB Series							
12	75	G7L-2A-TUB AC12	NEW 206-8397●				
24	303	G7L-2A-TUB 24AC	NEW 206-8395●				
100 to 240	21K	G7L-2A-TUB 200/240AC	NEW 206-8393●				
6	18.9	G7L-2A-TUB DC6	NEW 206-8401●				
12	75	G7L-2A-TUB 12DC	NEW 206-8392●				
24	303	G7L-2A-TUB 24DC	NEW 206-8396●				
48	1.22K	G7L-2A-TUB DC48	NEW 206-8399●				
100	5.26K	G7L-2A-TUB DC100	NEW 206-8398●				
DPNO - G7L-2A-TUBJ Series							
24	303	G7L-2A-TUBJ 24AC	NEW 206-8402●				
Accessories							
DIN rail socket		P7LF-06D	994-5431●				
DIN rail bracket		P7LF-D	994-5440●				
Mounting bracket		R99-07G5D	118-1247●				

8 and 11 Pin Power Relays

5A with Contact Indicator

OMRON

MK2P, MK3P5 Series

Two and three pole changeover power relays for plug-in octal and 11 bases. The relays have serrated contacts giving low contact resistance and a mechanical flag indicator to show contact operation. The relays are available either with or without a manual test button. See this section for suitable bases etc.

H=52.5, W=34.5, D=34.6

Contact arrangement		DPCO	Dielectric strength	2500V
Contact rating (resistive)	N.O. contact	10A @ 250V ac/28V dc	Operate/Release	ac 20ms, dc 20ms/20ms
	N.O. contact	5A @ 250V ac/28V dc	Coil consumption	2.7VA (ac),
Contact rating (inductive pf 0.4)	N.O. contact	7A @ 250V ac	Coil operating range	80% - 110%
			Temperature range	-10°C to -40°C
Contact material		Silver		

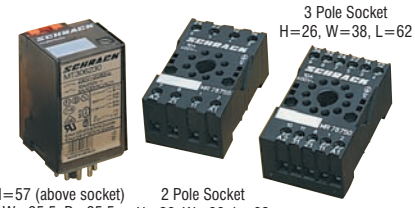
207131

COIL Volts	Ω	Order Code	Price Each 1+	20+	100+	500+
With Test Button and Contact Indicator						
DPCO - MK2P-S Series						
24V ac	48.4	169-1482●				
110V ac	1.24K	169-1483●				
230V ac	6.17K	169-1484●				
24V dc	430	169-1485●				
3PCO - MK3P5-S Series						
24V ac	62	169-1486●				
110V ac	1.24K	169-1487●				
230V ac	6.17K	169-1488●				
24V dc	430	169-1489●				

10A with Contact Indicator and Test Button

Tyco Electronics

MT2/3 Series



'Multimode' power relays for plug-in octal and 11 pin bases, incorporating a simple locking test feature. A lifting 'tab' which presents a clearly visible, orange indicator when activated, quickly and securely locks the relay test function allowing one man and long term testing.

- Contacts rated at 10A/250V ac per pole
- 'Flag' indicator gives operational status
- Colour coded, blue-dc and orange-ac
- Finger protected push to test button
- Din rail sockets offer finger protected terminals, clear marking and segregation of low level control circuits from the load
- Module sockets allow the use of protection and timer modules to be used with the relays
- Timer module has 24V to 240V ac/dc voltage range with Delay-On, Delay-Off, Single shot, Delay On (external trigger) and Flasher functions and time ranges from 50ms to 240 hours

Contact arrangement	DPCO/3PCO	Dielectric strength	2500V
Contact rating	10A @ 240V ac	Operate/Release	12ms/9ms
Max. switched current	20A20A	Coil consumption	2.3VA (ac), 1.2W (dc)
Max. Break voltage	400VAC	Coil operating range	80% - 140%
Switching capacity	2500VA	Temperature range	-45°C to +50°C
Contact materials	Silver / Nickel Alloy		

207015

COIL Volts	Ω	Mftrs. List No.	Order Code	Price Each 1+	20+	100+	500+
DPCO							
24V ac	86	MT226024	117-5023●				
115V ac	2K	MT226115	117-5024●				
230V ac	8.3K	MT226230	117-5025●				
12V dc	110	MT221012	117-5027●				
24V dc	475	MT221024	117-5028●				
3PCO							
24V ac	86	MT326024	117-5029●				
115V ac	2K	MT326115	117-5030●				
230V ac	8.3K	MT326230	117-5031●				
12V dc	110	MT321012	117-5032●				
24V dc	475	MT321024	117-5033●				
Sockets							
DPCO	—	MT78755	119-7643●				
3PCO	—	MT78750	119-7644●				
Module Sockets							
DPCO	—	MT78745	119-7645●				
3PCO	—	MT78740	119-7646●				
Modules							
Diode		MTMT00A0	102-4019●				

10A with Contact Indicator and Test Button

finder

60-12/13 Series

Two and three pole changeover power relays for plug-in octal and 11-pin bases. The relays have manual test button and mechanical flag contact operating indicator. AC coils are dual frequency 50/60 Hz. **VDE, CSA, RINA, BEAB, IMQ, DEMKO** and **SEV** approved, **UL** Recognised. The cover is flame retardant. See this section for suitable bases etc.

Contact arrangement	DPCO/3PCO	Max. Switch voltage	400V
Contact rating (resistive)	10A @ 250V ac/30V dc	Contact materials	Silver Nickel
Contact rating (inductive pf 0.4)	3A @ 250V ac	Dielectric strength	2000V
	5A @ 24V dc	Operate/Release time	9ms / 9ms
Switching capacity	2500VA	Coil consumption	2.2VA (ac), 1.3W (dc)
Max. Inrush current	20A	Coil operating range	80% - 110%
		Temperature range	-40°C to +70°C

Order Code	Mftrs. List Nos:				
116-9186	60.12.8.012.0040	116-9189	60.12.8.110.0040	116-9193	60.12.9.024.0040
116-9187	60.12.8.024.0040	116-9190	60.12.8.230.0040	116-9194	60.12.9.048.0040
116-9188	60.12.8.048.0040	116-9192	60.12.9.012.0040	116-9195	60.12.9.110.0040
		Order Code	Mftrs. List Nos:	116-9196	60.13.8.024.0040

RoHS ● Compliant ▲ Non-compliant

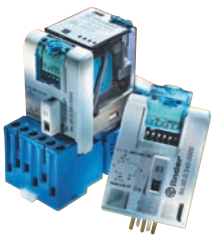
116-9197	60.13.8.110.0040	116-9199	60.13.9.012.0040	116-9202	60.13.9.110.0040
116-9198	60.13.8.230.0040	116-9200	60.13.9.024.0040	116-9213	90.20SMA
Order Code	Mftrs. List Nos:	116-9201	60.13.9.048.0040	116-9215	90.21SMA

213447

COIL Volts	Ω	Order Code	Price Each 1+	20+	100+	250+	500+
DPCO - 60-12 Series							
12V ac	19	**116-9186●**					
24V ac	74	**116-9187●**					
48V ac	290	**116-9188●**					
110V ac	1.6K	**116-9189●**					
230V ac	7.25K	**116-9190●**					
12V dc	110	**116-9192●**					
24V dc	445	**116-9193●**					
48V dc	1.772K	**116-9194●**					
110V dc	9.42K	**116-9195●**					
3PCO - 60-13 Series							
24V ac	74	**116-9196●**					
110V ac	1.6	**116-9197●**					
240V ac	7.25K	**116-9198●**					
12V dc	110	**116-9199●**					
24V dc	445	**116-9200●**					
48V dc	1.772K	**116-9201●**					
110V dc	9.42K	**116-9202●**					
Relay Bases							
DPCO		**116-9213●**					
3PCO		**116-9215●**					

Relay Bases and Timers

Multi-function, Multi-voltage - 86 Series



- 8 Timing functions (116-9366)
- 2 Functions (132-9733) A1 and D1
- 7 Time scales from 1s to 100h
- Wide supply voltage range from 12 to 240V ac & dc
- Protected, but accessible, function and time scale setting switches
- Works with 60 series relays via dedicated socket

Timer and Timer fitted to base with relay

Functions

AI	ON delay	**CE**	Signal ON & OFF delay
DI	ON pulse	**DE**	Signal ON pulse
SW	Symmetrical recycler: ON start	**EE**	Signal OFF pulse
BE	Signal OFF delay	**FE**	Signal ON delay + OFF pulse

	116-9366	132-9733
Operating voltage	12 to 240VDC, 12 to 240VAC	12 to 24VDC / dc
Rated power ac/dc	1.2W	150mW
Specified time range	0.05-1, 0.5-10, 5-100 seconds 0.5-10, 5-100 minutes. 0.5-10, 5-100 hours	
Operating temperature	-20 to 50°C	-20 to 50°C
Protection category	IP20	IP20

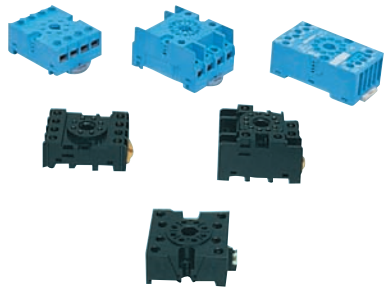
Order Code	Mftrs. List Nos:	Order Code	Mftrs. List Nos:
116-9366	86.00.0.240.0000	116-9368	90.03SMA
132-9733	86.30.0.024.0000	132-9734	95.03SPA
116-9367	90.02SMA	132-9735	95.05SPA

For 60.12 & 60.13 Series relays SEE WEBSITE

272414

	Order Code	Price Each 1+	25+	100+	250+
Timer					
Multi Function & Multi Voltage	**116-9366●**				
Bi-Function & Multi Voltage	**132-9733●**				
Sockets					
8 Pin (60.12 relays)	**116-9367●**				
11 Pin (60.13 relays)	**116-9368●**				
5 Pin 8630 & 40/44	**132-9734●**				
8 Pin 8630 & 40/44	**132-9735●**				

35mm Rail/Surface Mounting



Screw terminal bases for mounting on 35mm DIN rail or for screw mounting to flat surfaces.
116-9211, 116-9212: Colour blue.

134-0949, 134-0950: Colour black.

116-9213, 116-9215: Sockets will accept Diode and LED modules detailed below. Colour blue.

177-176, 177-177: Compact low profile sockets designed to take up no extra space when used with **DIN48** packages. Contact rating 10A.
Note: All FINDER bases now supplied complete with retaining clip

206949

Description	Mftrs. List No.	Order Code	Price Each 1+	25+	50+	100+	250+
Finder							
8 pin base	90.26SMA	**116-9211●**					
11 pin base	90.27SMA	**116-9212●**					
8 pin base	90.20SMA	**116-9213●**					
11 pin base	90.21SMA	**116-9215●**					
Omron							
11 pin base	PF113A-E	**134-0950●**					

Protection and Indication Modules

These modules can be easily inserted in the special relay sockets Order Codes 116-9213 and 116-9215 (detailed above) to provide extra facilities for Finder 8 and 11 pin 60 series relays. The modules provide back EMF diode protection, LED indication, or both.

The modules are also suitable for use with Finder PCB power relays and bases (see **Order Code 116-9216**).

Mftrs. List No.	Order Code	Mftrs. List No.	Order Code	Mftrs. List No.	Order Code
99.01.3.000.00	116-9329	99.01.9.060.99	176-5102	99.02.9.024.99	176-5091
99.01.9.024.90	116-9330	99.02.3.000.00	176-5090	99.02.0.230.98	176-5096
99.01.9.024.99	176-5101				

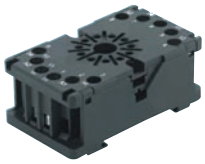
224494

Type	Operating Voltage	Order Code	Price Each 1+	25+	100+	250+	500+
99.01 Series							
Diode	6 - 220V dc	**116-9329●**					
Diode + LED	6 - 24V dc	**116-9330●**					
Diode + LED	6 - 24V dc	**176-5101●**					
Diode + LED	28 - 60V dc	**176-5102●**					
99.02 Series							
Diode		**176-5090●**					
Diode + LED	6 - 24V dc	**176-5091●**					
Varistor + LED	110 - 220V dc	**176-5096●**					

8 and 11 Pin Power Relays - continued

DIN Rail/Surface Mount

Screw Terminals

Rated Voltage	300V ac	Insulation Voltage	≥3kV
Rated Current	10A	Material - Base	Flame Retardant PA66

522106

	Mftrs. List No.	Order Code	Price Each 1+	25+	50+	100+	250+
Clip Attachment							
8 Pin	MCCDSA-08	**163-8152●**					
11 Pin	MCCDSA-11	**163-8153●**					
Spring Attachment							
8 Pin	MCCDSB-08	**163-8155●**					
11 Pin	MCCDSB-11	**163-8156●**					

Chassis, Panel or DIN Rail Mount Sockets

10A @ 250V ac Rated

Screw terminal bases for mounting on 35mm DIN rail or for screw mounting to flat surfaces. This range of compact sockets is manufactured in flame retardant UL94 V0 rated nylon. All screw terminals are shrouded and are finger proofed to maximise safety. The bases can easily be removed from DIN rail by a release tab. The cover has a cable entry knockout at each end.

FOR SUITABLE 35mm DIN RAIL SEE **Web**

500886

	Mftrs. List No.	Order Code	Price Each 1+	25+	50+	100+	250+
8 pin base	MCS8P	**154-7936●**					
11 pin base	MCS11P	**154-7937●**					
Cover	MCFWSP	**154-7939●**					

Chassis Mount Sockets

10A @ 250V ac Rated


154-7943
Top View
43 x 43 x 20.5mm


154-7944
Rear View
47 x 47 x 20.5mm

Compact screw terminal bases for screw mounting to flat surfaces. This range of sockets is manufactured in flame retardant UL94 V0 rated nylon. All screw terminals are shrouded and are finger proofed to maximise safety. The screw terminals are on the reverse side, allowing access with the unit mounted on the panel.

500891

No. of Ways	Mftrs. List No.	Order Code	Price Each 1+	25+	50+	100+	250+
8 pin base	MCCDSR08	**154-7943●**					
11 pin base	MCCDSR11	**154-7944●**					

Chassis Mounting

Body dia.:30mm
Fixing centre:40mm (slots)

622627

Mftrs. List No.	Order Code	Price Each 1+	5+	10+	50+	100+
8 Pin Bases						
PL08	**118-1272●**					
11 Pin Bases						
PL11	**118-1273●**					

PCB Mounting

PLE08-0
170-403
331-790, 331-806: H=14, Dia=29, Contacts W=2 on 29 P.C.D.
170-402: H=14.5, Dia=27, Mounting holes dia=1.3 on 20.5 P.C.D
170-403: H=14.5, Dia=27, Mounting holes dia=1.3 on 22 P.C.D

207135

Mftrs. List No.	Order Code	Price Each 1+	25+	100+	250+	500+
PLE11-0	**118-1274●**					

8/11 Way Free Sockets

10A @ 250V ac Rated

The sockets incorporate an adjustable cable clamp and are terminated via solder lugs. Suitable for many types of panel mounted relays and timers, or as an inline connector. This range of compact sockets is manufactured in flame retardant UL94 nylon.

500889

No. of Ways	Mftrs. List No.	Order Code	Price Each 1+	25+	50+	100+	250+
8 pin	MCS8F	**154-7941●**					
11 pin	MCS11F	**154-7942●**					

Panel Mounted Relays - Finder

16A/CO and NO Types

62 Series

2 and 3 pole power relays available with either changeover or normally open contacts. The normally open contact relays have 3mm contact gaps conforming to **IEC730** regulations for office and domestic appliances.

H (case)=48, H (incl. fixing lugs)=68, W=38.2, D=35.8
Fixing centres=63.5, Slot W=3.6, Terminals Faston 250=6.35 x 0.8

Contact arrangement	DPCO/DPNO/3PCO/3NO	Coil consumption	2.2VA, 1.3W
Contact rating	DPCO/3PCO/3NO 16A @ 250V acDPNO =20A	Coil operating range	80-110%
Contact material	Silver Cadmium Oxide		

Mftrs. List Nos:	Mftrs. List Nos:	Mftrs. List Nos:
62.82.8.230.0000=116-9277	62.82.9.024.0300=116-9283	62.83.9.024.0300=116-9287
62.82.9.012.0000=116-9278	62.83.8.230.0000=116-9284	62.83.8.230.0300=132-9747
62.82.9.024.0000=116-9279	62.83.9.012.0000=116-9285	62.83.9.024.0300=116-9287
62.82.8.230.0300=116-9280	62.83.9.024.0000=116-9286	

207110

COIL Volts	Ω	Order Code	Price Each 1+	25+	100+	250+	500+
DPCO, 16A - 6282 Series							
230V ac230	—	**116-9277●**					
12V dc12	110	**116-9278●**					
24V dc24	445	**116-9279●**					
DPNO, 16A - 6282-0300 Series (3mm gap)							
230V ac230	—	**116-9280●**					
24V dc24	192	**116-9283●**					
3PCO, 16A - 6283 Series							
230V ac	—	**116-9284●**					
12V dc	110	**116-9285●**					
24V dc	445	**116-9286●**					
3PNO, 16A - 6283-0300 Series (3mm gap)							
230V	5	**132-9747●**					
24V dc24	192	**116-9287●**					

20A/30A 6531 Series

Single pole power relays with **VDE, CSA, SEV** approvals.
UL Recognised.
Transparent polycarbonate case has fixing lugs for screw mounting.

L=36.5, W=32.2, H=42.2
Fixing centres=52.5 (slots 3.6 dia)
Terminals=6.3 x 0.8

Contact arrangement	SPST NO & SPST NC / SPST NO	Dielectric stength	2000V ac
Contact rating	20A / 30A @ 250V ac	Coil consumption	2.2VA, 1.3W
Switching capacity	5000VA / 7500VA	Coil operating range ac/dc	85-110%/80 - 110%
Max. Inrush current	40 / 50A	Operate release/time	≤ 15msms
Max. switching voltage	400V ac	Temperature range	-40°C to +70°C
Contact material	Silver Cadmium Oxide(90/10%)		

Order Code	Mftrs. List Nos:	Order Code	Mftrs. List Nos:
116-9203	65.31.9.012.0300	116-9206	65.31.9.012.0000
116-9204	65.31.9.024.0300	116-9207	65.31.9.024.0000
116-9205	65.31.8.230.0300	116-9209	65.31.8.230.0000

207123

RoHS ● Compliant ▲ Non-compliant

COIL Volts	Ω	Order Code	Price Each 1+	25+	100+	250+	500+
SPNO, 30A - 6531 NO Series							
12V dc	110	**116-9203●**					
24V dc	445	**116-9204●**					
230V ac	7.25	**116-9205●**					
SPNO + SPNC, 20A - 6531 CO Series							
12V dc	110	**116-9206●**					
24V dc	445	**116-9207●**					
230V ac	7.25	**116-9209●**					

DPDT 30A - Panel Mount

finder

66.82 Series

H = 31, W = 68, D = 33.5mm

- 30A Rated Contacts
- AC and DC Versions Available
- Flange Mount
- Faston 250 Connections
- Reinforced Insulation between coil and Contacts According to EN 60335-1
- 8mm Creepage and Clearance Distances
- Approved to **CE, CSA, ANCE, IMQ, VDE** and **UL** Recognised

Contact arrangement	DPDT - CO
Rated contact current/Max. peak current	30A / 50A (NO), 10A / 20A (NC)
Rated contact voltage	250V
Contact Material	AgCdO
Operate/Release	8 / 15ms typical
Temperature range	-40 to 70°C

Order Code	Mftrs. List No.	Order Code	Mftrs. List No.
132-9688	66.82.8.024.0000	132-9691	66.82.9.012.0000
132-9689	66.82.8.110.0000	132-9692	66.82.9.024.0000
132-9690	66.82.8.230.0000		

458261

COIL Volts	Ω	Order Code	Price Each 1+	10+	25+	50+	100+
24V	50	**132-9688●**					
110V	930	**132-9689●**					
230V	4	**132-9690●**					
12V	85	**132-9691●**					
24V	340	**132-9692●**					

Panel Mounted Relays - Tyco Electronics

16A/25A/30A - RM Series

Tyco Electronics

Suitable for direct control of squirrel-cage motors, heaters or electrical appliances.
The RM7 and RM8 series both have a mechanical flag indicator. The RM7 series has **CSA** approvals and is **UL** Recognised. The RM8 has **VDE** (dc coils only), **SEV** and **CSA** approvals and is UL Recognised.

H (case)=48.5, H (inc. fixing lugs)=73.5, W=38.5,
D=35.5.Fixingcentres=64. Terminals=6.3 x 0.8

Contact arrangement	SPNO/DPCO/3PCO
Contact rating	SPNO - 30A @ 240V ac DPCO - 25A @ 240V ac 3PCO - 16A @ 380V ac
Switching capacity	SPNO-7200VA (2HP @ 240V ac) DPCO-6000VA (2HP @ 240V ac) 3PCO-6000VA (0.5HP @ 240V ac)
Contact material	Silver Cadmium oxide
Dielectric stength (min.) Coil/Contact	2500V ac
Dielectric stength (min.) Contact/Contact	4000V ac
Coil consumption	SPNO/DPCO - 2.8VA, 1.2W 3PCO - 2.8VA, 1.6W
Temperature range	dc: -45°C to 60°C, ac: -45°C to 40°C
Case material	Tinted polycarbonate, **UL94V-2**
Base material	Polyester, **UL94V-0**

622291

COIL Volts	Ω	Mftrs. List No.	Order Code	Price Each 1+	10+	50+	100+
SPNO, 30A							
12V	110	RMD05012	**225-678●**				
24V	475	RMD05024	**225-680●**				
230V	7.5	RMD05730	**225-691●**				
DPCO, 25A							
12V	110	RM805012	**225-708●**				
24V	475	RM805024	**225-710●**				
110V	1.85	RM805615	**225-721●**				
230V	7.5	RM805730	**225-733●**				
3PCO, 16A							
12V	86	RM705012	**225-745●**				
24V	345	RM705024	**225-757●**				
230V	7.5	RM705730	**225-769●**				

30A - Panel Mount

Tyco Electronics

T92 Series

- 30A DPST-NO and DPDT switching capabilities
- Designed to control compressor loads up to 3.5 tons, 25.3 FLA, 110 LRA
- Extended life, 300000 ops @ 30A (dc coil), 100000 ops @ 30A (ac coil)
- **CSA**, **VDE** Approvals, **UL** Recognised

L=69, W=34, H (case)=26
Terminals=6.3 x 0.8

Contact arrangement	DPNO-DPCO
Contact rating	N/O-30A @ 240V ac N/O-20A @ 240V ac N/C-3A @ 240V ac
Dielectric stength	4000V rms
Contact material	Silver Cadmium Oxide/Silver Tin Indium Oxide
Operate/Release	15ms/10ms
Coil consumption	1.55W (dc), 4VA (ac)
Coil operating range	80-110%
Temperature range	-40 to +65°C

Order Code	Part No.	Mftrs. List No.	Order Code	Part No.	Mftrs. List No.
270-313	6-1393211-9	T92P7D22-12	270-350	5-1393211-4	T92P11D22-24
270-325	7-1393211-9	T92P7D22-24	270-362	4-1393211-4	T92P11A22-240
270-337	6-1393211-2	T92P7A22-240	162-9076	1423008-9	T92P7D24-24
270-349	5-1393211-3	T92P11D22-12			

206970

Volts	COIL Ω	Mftrs. List No.	Order Code	Price Each 1+	20+	50+	100+
DPNO - Silver Cadmium Oxide contacts							
12V dc	93.75	T92P7D22-12	**270-313●**				
24V dc	375	T92P7D22-24	**270-325●**				
240V ac	4.083	T92P7A22-240	**270-337●**				
DPNO - Silver Tin Indium Oxide contacts							
24V	350	T92P7D24-24	**162-9076●**				
DPCO - Silver Cadmium Oxide contacts							
12V dc	93.75	T92P11D22-12	**270-349●**				
24V dc	375	T92P11D22-24	**270-350●**				
240V ac	4.083	T92P11A22-240	**270-362●**				

Panel Mounted Relays - IMO

General Purpose 10A Power Relay

IMO

DPCO - Flange Mount

- Arc barriers prevent flashover between contacts
- High reliability/long life expectancy
- **UL/cUL** approved

	Resistive	Inductive
Rated Load	10A @ 240V ac/30V dc	7.5A @ 240V ac, 5A @ 30V dc
Rated Current	10A	
Maximum Switching Voltage	250V ac/30V dc	
Operating Time	25ms Max.	
Release Time	25ms Max.	
Dielectric Strength	1500V ac 50/60Hz for 1 min.	
Ambient Operating Temp.	-40 to 70°C	-40 to 70°C
Mechanical Service Life	20 million ops min.	
Electrical Service Life	100,000 ops at rated load	
Power Consumption	0.9W dc	

Mftrs. List No.	Rated Voltage	AC Coils. Coil Resistance	DC Coils Coil Resistance	Order Code
QY21XXF12DC	12V	–	160Ω	100-8803
QY21XXF24DC	24V	–	650Ω	100-8804
QY21XXF230AC	230V	14.4Ω	–	100-8807

Panel Mounted Relays - IMO - continued

General Purpose 10A Power Relay - continued

DPCO - Flange Mount - continued

622893

Mftrs. List No.	Order Code	Price Each 1+	25+	100+	200+	500+
QY21XXF12DC	**100-8803●**					
QY21XXF24DC	**100-8804●**					
QY21XXF230AC	**100-8807●**					

Panel Mounted Relays - Omron

10A - SPCO

G2R-I-T Series

- SPCO relays capable of switching 10A
- Quick connect terminals, ideal for panel mounting
- Terminals accept 4.8 x 0.5 "faston" connectors
- **CSA, TUV, VDE, SEMKO, NEMKO, IMQ** and **SETI** approved, **UL** Recognised

H=29.5 W=45 D=14
Fixing Centres=38

Connect arrangement	SPCO	Coil consumption	530mW/0.9VA530mW
Contact rating	10A @ 250 Vac/30VdcV250	Coil operating range	70-110% dc/80-110% ac
Contact material	Silver Cadmium Oxide		

207032

Mftrs. List No.	Ω	Order Code	Price Each 1+
G2R-1-T 24VDC	1.1	**909-968●**	
G2R-1-T 24VAC	260	**909-970●**	
G2R-1-T 110VAC	5.5	**909-981●**	
G2R-1-T 24VDC	1.1	**909-968●**	

Interface Relays

Interface Relays

Mftrs. List No.	Rated Voltage	Power	Rated Current	Drop-out Voltage	Status Device
1SNA607029R0100	12V	300mW	24mA	1.2V	–
1SNA607030R0600	24V	300mW	14mA	2.4V	–
1SNA607001R0600	12V	600mW	52mA	1.2V	Lamp
1SNA607002R0700	24V	800mW	33mA	2.4V	Lamp

637032

Mftrs. List No.	Order Code	Price Each 1+	5+	10+	+
1SNA607029R0100	**189-5906●**				
1SNA607030R0600	**189-5907●**				
1SNA607001R0600	**189-5903●**				
1SNA607002R0700	**189-5905●**				

Relay Interfaces

Mftrs. List No.	Input Type	Rated Voltage	Contact Configuration	Connection Type	Current In Contacts	Order Code
1SNA645001R0300	AC / DC	24V	SPDT	Screw	10mA to 6A	189-5908
1SNA645002R0400	AC / DC	48V	SPDT	Screw	10mA to 6A	189-5909
1SNA645003R0500	AC / DC	115	SPDT	Screw	10mA to 6A	189-5910
1SNA645004R0400	AC / DC	230V	SPDT	Screw	10mA to 6A	189-5911
1SNA645005R0700	AC / DC	24V	SPDT	Screw	1mA to 6A	189-5912
1SNA645006R0000	AC / DC	48V	SPDT	Screw	1mA to 6A	189-5913
1SNA645007R0100	AC / DC	115V	SPDT	Screw	1mA to 6A	189-5914
1SNA645008R1200	AC / DC	230V	SPDT	Screw	1mA to 6A	189-5915
1SNA645009R1300	AC / DC	24V	SPDT	Screw	10mA to 6A	210-2294
1SNA645010R0700	AC / DC	24V	SPDT	Screw	1mA to 6A	210-2295
1SNA645011R2400	AC / DC	230V	SPDT	Screw	10mA to 6A	210-2296
1SNA645012R2500	AC / DC	24V	DPDT	Screw	1mA to 8A	189-5917
1SNA645013R2600	AC / DC	230V	DPDT	Screw	1mA to 8A	189-5919
1SNA645014R2700	AC / DC	24V	SPST-NO	Screw	10mA to 6A	210-2297
1SNA645015R2000	AC / DC	60V	1NO	Screw	10mA to 6A	189-5920
1SNA645016R2100	AC / DC	115V	1NO	Screw	10mA to 6A	189-5921
1SNA645017R2200	AC / DC	230V	1NO	Screw	10mA to 6A	189-5922
1SNA645018R0300	AC / DC	24V	1NO	Screw	10mA to 6A	189-5923
1SNA645019R0400	AC / DC	24V	1NC	Screw	10mA to 6A	189-5924
1SNA645020R0100	AC / DC	230V	SPDT	Screw	10mA to 6A	210-2299
1SNA645032R2100	AC / DC	24V	SPDT	Screw	10mA to 6A	210-2303
1SNA645033R2200	AC / DC	24V	SPDT	Screw	1mA to 6A	210-2305
1SNA645034R2300	DC	5V	SPDT	Screw	10mA to 6A	189-5933
1SNA645036R2500	DC	5V	SPDT	Screw	1mA to 6A	189-5934
1SNA645037R2600	DC	12V	SPDT	Screw	1mA to 6A	189-5935
1SNA645040R1500	AC / DC	60V	DPDT	Screw	1mA to 8A	189-5936
1SNA645041R0200	DC	115V	DPDT	Screw	1mA to 8A	189-5937
1SNA645046R0700	AC / DC	115V	SPDT	Screw	10mA to 6A	210-2306
1SNA645063R0000	AC / DC	24V	SPST-NO	Screw	10mA to 6A	210-2309
1SNA645064R0100	DC	24V	SPDT	Screw	10mA to 6A	189-5947
1SNA645065R0200	DC	24V	SPDT	Screw	1mA to 6A	189-5948
1SNA645069R0000	DC	12V	SPDT	Screw	10mA to 6A	189-5949

637047

Mftrs. List No.	Order Code	Price Each 1+	5+	10+
1SNA645001R0300	**189-5908●**			
1SNA645002R0400	**189-5909●**			
1SNA645003R0500	**189-5910●**			
1SNA645004R0400	**189-5911●**			
1SNA645005R0700	**189-5912●**			
1SNA645006R0000	**189-5913●**			
1SNA645007R0100	**189-5914●**			
1SNA645008R1200	**189-5915●**			
1SNA645009R1300	**210-2294●**			
1SNA645010R0700	**210-2295●**			
1SNA645011R2400	**210-2296●**			
1SNA645012R2500	**189-5917●**			
1SNA645013R2600	**189-5919●**			
1SNA645014R2700	**210-2297●**			
1SNA645015R2000	**189-5920●**			
1SNA645016R2100	**189-5921●**			
1SNA645017R2200	**189-5922●**			
1SNA645018R0300	**189-5923●**			
1SNA645019R0400	**189-5924●**			
1SNA645020R0100	**210-2299●**			
1SNA645032R2100	**210-2303●**			
1SNA645033R2200	**210-2305●**			
1SNA645034R2300	**189-5933●**			
1SNA645036R2500	**189-5934●**			
1SNA645037R2600	**189-5935●**			
1SNA645040R1500	**189-5936●**			
1SNA645041R0200	**189-5937●**			
1SNA645046R0700	**210-2306●**			
1SNA645063R0000	**210-2309●**			
1SNA645064R0100	**189-5947●**			
1SNA645065R0200	**189-5948●**			
1SNA645069R0000	**189-5949●**			
Accessories				
1SNA290474R0200	**189-5900●**			
1SNA290488R0100	**189-5901●**			
1SNA645031R2000	**189-5932●**			

Optocouplers

Mftrs. List No.	Type	Rated Voltage	Contact Type	Input Voltage Range	Max. Output Voltage	Output Current
1SNA645047R0000	DC	12V	Screw	4.25V to 14.4V	58V	100mA
1SNA645021R2600	DC	24V	Screw	20.4V to 28.8V	58V	100mA
1SNA645049R1200	AC / DC	48V	Screw	40.8V to 72V	58V	100mA
1SNA645022R2700	AC / DC	115V	Screw	97.8V to 276V	58V	100mA
1SNA645050R1700	DC	12V	Screw	4.25V to 14.4V	58V	2A
1SNA645051R0400	DC	24V	Screw	20.4V to 28.8V	58V	2A
1SNA645025R2200	AC / DC	24V	Screw	20.4V to 28.8V	58V	2A
1SNA645024R2100	DC	24V	Screw	20.4V to 28.8V	58V	5A
1SNA645053R0600	AC / DC	48V	Screw	40.8V to 72V	58V	2A
1SNA645054R0700	AC / DC	115V	Screw	97.8V to 138V	58V	2A

RoHS ● Compliant ▲ Non-compliant

Mftrs.		Rated	Contact	Input Voltage	Max. Output	Output
1SNA645058R1300	AC / DC	115V	Screw	97.8V to 138V	58V	5A
1SNA645026R2300	AC / DC	230V	Screw	195V to 276V	58V	2A
1SNA645059R1400	AC / DC	230V	Screw	195V to 276V	58V	5A
1SNA645029R0600	DC	24V	Screw	20.4V to 28.8V	230V	2A
1SNA645027R2400	DC	24V	Screw	20.4V to 28.8V	400V	1A
1SNA645028R0500	AC / DC	230V	Screw	207V to 253V	400V	1A
1SNA645061R0600	AC / DC	60V	Screw	40V to 68V	400V	1A
1SNA645062R0700	AC / DC	115V	Screw	103.5V to 126.5V	400V	1A

637003

Mftrs. List No.	Order Code	Price Each 1+	5+	10+
1SNA645047R0000	**189-5938**			
1SNA645021R2600	**189-5925**			
1SNA645049R1200	**189-5939**			
1SNA645022R2700	**189-5926**			
1SNA645050R1700	**189-5940**			
1SNA645051R0400	**189-5942**			
1SNA645025R2200	**189-5929**			
1SNA645024R2100	**189-5927**			
1SNA645053R0600	**189-5943**			
1SNA645054R0700	**189-5944**			
1SNA645058R1300	**189-5945**			
1SNA645026R2300	**189-5931**			
1SNA645059R1400	**189-5946**			
1SNA645029R0600	**210-2302**			
1SNA645027R2400	**210-2300**			
1SNA645028R0500	**210-2301**			
1SNA645061R0600	**210-2307**			
1SNA645062R0700	**210-2308**			

Terminal with Isolator

Termopto Series

- 6mm pitch
- Protected Input and Output circuit
- Input / Output Opto isolation
- Status indication by LED
- Push In connection
- Standardized marking with WS12/6 Multicard

NEW

Mftrs. List No.	Rated Control Voltage	Rated Switching Current	Rated Switching Voltage	Order Code
8950760000	5Vdc	100mA	5Vdc to 48Vdc	184-3897
8950780000	24Vdc	100mA	5Vdc to 48Vdc	184-3899
8950790000	48Vdc to 60Vdc	100mA	5Vdc to 48Vdc	184-3900
8950890000	230Vac	100mA	5Vdc to 48Vdc	184-3901
8950960000	5Vdc	500mA	5Vdc to 48Vdc	184-3902
8950980000	24Vdc	500mA	5Vdc to 48Vdc	184-3903
8950990000	48Vdc to 60Vdc	500mA	5Vdc to 48Vdc	184-3905
8951090000	230Vac	500mA	5Vdc to 48Vdc	184-3906
8951180000	24Vdc	100mA	24Vac to 230Vac	184-3907
8951290000	230Vac	100mA	24Vac to 230Vac	184-3908

616525

Mftrs. List No.	Order Code	Price Each 1+	10+	25+	50+	100+
8950760000	**184-3897**					
8950780000	**184-3899**					
8950790000	**184-3900**					
8950890000	**184-3901**					
8950960000	**184-3902**					
8950980000	**184-3903**					
8950990000	**184-3905**					
8951090000	**184-3906**					
8951180000	**184-3907**					
8951290000	**184-3908**					

SSR - DIN Rail

Microopto Series

- Short circuit protected output with thermal protection
- Overvoltage protection at all connections
- Output error LED
- Signal LED
- Direct connection for 3 wire actuators
- Pluggable cross connection
- PE connection integrated in mounting foot

NEW

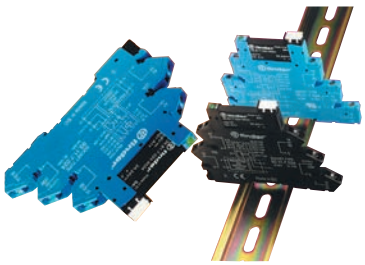
Mftrs. List No.	Rated Control Voltage	Rated Switching Current	Rated Switching Voltage	Order Code
8937940000	24Vdc	10A	3Vdc to 33Vdc	184-3909
8937970000	24Vdc	2A	3Vdc to 30Vdc	184-3910
8937830000	24Vdc	1A	12Vdc to 300Vdc	184-3911
8937980000	24Vdc	500mA	5Vdc to 48Vdc	184-3912
8937990000	12Vdc to 28Vdc	50mA	24Vdc	184-3913

616718

Mftrs. List No.	Order Code	Price Each 1+	10+	25+	50+	100+
8937940000	**184-3909**					
8937970000	**184-3910**					
8937830000	**184-3911**					
8937980000	**184-3912**					
8937990000	**184-3913**					

38 Series Relay Interface Modules

Electromechanical and SSR



- 35mm DIN rail (EN 50022) mount
- DC and AC/DC versions available
- Supplied with integral coil indication and protection circuit
- Instant removal of relay using plastic retaining clip
- 6kV/8mm isolation between coil and contacts
- Screw terminal and Screwless terminal types available
- Relays approved to **CSA, VDE, SEV, SETI, BEAB, SEMKO, DEMKO,** and **IMQ**, **UL** Recognised.

	Electromechanical versions	SSR Versions
Contact arrangment	SPCO 6A/DPDT 8A	2A
Current rating Max/peak	SPCO 6/10A & 16/30A, DPCO 8/15A	2/20A, 3/40A, 5/40A
Voltage Rating/switching max	250/400	1.5 - 24V
Load rating AC1/AC15	SPCO 1500/300V / DPCO 2000/400VA	Blocking Voltage = 275V
Temperature Range	-40°C to 70°C below 60V, -40°C to 55°C above 60V	-20°C to 55°C
Category protection	**IP 20**	**IP 20**

Order Code	Mftrs. List No.	Order Code	Mftrs. List No.	Order Code	Mftrs. List No.
116-9345	38.51.7.006.0050	132-9727	38.52.0.125.0060	194-7889	38.01.0.240.0060
116-9346	38.51.7.012.0050	116-9357	38.81.7.024.9024	194-7890	38.31.0.024.8240
116-9347	38.51.7.024.0050	132-9721	38.81.7.006.9024	194-7891	38.31.7.012.8240
116-9352	38.51.0.012.0060	132-9723	38.81.7.024.8240	194-7892	38.31.7.024.8240
116-9353	38.51.0.024.0060	116-9351	38.61.7.024.0050	194-7893	38.31.0.024.9024
116-9354	38.51.0.048.0060	194-7884	38.01.0.024.0060	194-7894	38.31.7.012.9024
116-9355	38.51.0.125.0060	194-7885	38.01.0.125.0060	194-7895	38.31.7.024.9024
116-9356	38.51.0.240.0060	194-7887	38.01.7.012.0050	426-7850	093.64
132-9725	38.52.7.024.0050	194-7888	38.01.7.024.0050	116-9358	093.20
132-9726	38.52.0.024.0060				

250009

Volts	Order Code	Price Each 1+	25+	100+	250+
EMR - SPDT - Screw Terminals - 6A					
6V dc	**116-9345**				
12V dc	**116-9346**				
24V dc	**116-9347**				
12V ac/dc	**116-9352**				
24V ac/dc	**116-9353**				
48V ac/dc	**116-9354**				
240V ac/dc	**116-9356**				
EMR - DPDT - Screw Terminals - 6A					
24V dc	**132-9725**				
24V ac/dc	**132-9726**				
EMR - SPDT - Screwless Terminals - 6A					
24V dc	**116-9351**				
EMR - SPDT - Screw Terminals - 16A					
12V dc	NEW **194-7887**				
24V dc	NEW **194-7888**				
24V ac/dc	NEW **194-7884**				
125V ac/dc	NEW **194-7885**				
240V ac/dc	NEW **194-7889**				
SSR - SPST-NO - 6.2mm Wide - Screw Terminal					
6V dc	**132-9721**				
24V dc	**116-9357**				
24V dc	**132-9723**				
SSR - SPST-NO - 14mm Wide - Screw Terminal					
12V dc	NEW **194-7891**				
24V dc	NEW **194-7892**				
12V dc	NEW **194-7894**				
24V dc	NEW **194-7895**				
24V ac/dc	NEW **194-7890**				
24V ac/dc	NEW **194-7893**				
Accessories					
ID Labels	NEW **426-7850**				
Jumper Link, 20 way	NEW **116-9358**				

Relay Interface Modules

finder

39 Series

NEW

- Space saving 6.2 mm wide
- Connections for 16-way jumper link
- Integral coil indication and protection circuit
- Secure retention and easy ejection by plastic clip
- Dual screw head (blade+cross) terminals
- 35 mm rail mounting

Master**BASIC**
- For general use in any type of system

Master**PLUS**
- Accepts the output fuse module, for the easy and space efficient protection of output circuits

Master**INPUT**
- Jumper link option for the quick and easy distribution of supply voltage to proximity switches and similar input devices

Master**OUTPUT**
- Jumper link option for the quick and easy distribution of supply voltage to output side and its connection to electromagnetic valves and similar output devices

Master**TIMER**
- Timer adjustment via top mounted rotary knob accessible after assembly
- Control signal terminal
- DIP-switch for selection of 4 time scales and 8 functions
- Output with fuse module option

Solid State Relays Specification		Electromechanical Relays Specification	
Rated Current/Max. Peak Current	2A / 20A	Rated Current/Max. Peak Current	6A / 10A
Rated Voltage/Max. Blocking Voltage	24V / 33V	Rated Voltage/Max. Switching Voltage	250V / 400V
Switching Voltage Range	1.5V to 24V	Rated Load AC1 / AC15	1500VA / 300VA
Min. Switching Current	1mA	Single Phase Motor Rating	0.185kW
Max. "OFF-state" Leakage Current	0.001mA	Breaking Capacity	6A / 0.2A / 0.12A
Max. "ON-state" Voltage Drop	0.12V	DC1: 30 / 110 / 220V	

640419

Nominal Voltage	Input Current	Mftrs. List No.	Order Code	Price Each 1+	25+	50+
SSR - MasterBASIC - SPST-NO - Input Sensitive DC						
6V	7.5mA	39.10.7.006.9024	**190-3468**			
12V	20.7mA	39.10.7.012.9024	**190-3471**			
24V	10.5mA	39.10.7.024.9024	**190-3472**			
SSR - MasterBASIC - SPST-NO - Input AC						
230V	4.2mA	39.10.8.230.9024	**190-3473**			
EMR - MasterBASIC - SPDT - Coil AC/DC						
6V	35mA	39.11.0.006.0060	**190-3474**			
12V	15mA	39.11.0.012.0060	**190-3475**			
24V	11mA	39.11.0.024.0060	**190-3476**			
EMR - MasterBASIC - SPDT - Coil AC						
230V	4.3mA	39.11.8.230.0060	**190-3477**			
SSR - MasterOUTPUT - SPST-NO - Input Sensitive DC						
6V	7.5mA	39.20.7.006.9024	**190-3478**			
12V	20.7mA	39.20.7.012.9024	**190-3479**			
24V	10.5mA	39.20.7.024.9024	**190-3480**			
SSR - MasterOUTPUT - SPST-NO - Input AC						
230V	4.2mA	39.20.8.230.9024	**190-3481**			
EMR - MasterOUTPUT - SPST-NO - Coil AC/DC						
6V	35mA	39.21.0.006.0060	**190-3483**			
12V	15mA	39.21.0.012.0060	**190-3484**			
24V	11mA	39.21.0.024.0060	**190-3485**			
125V	5.6mA	39.21.0.125.0060	**190-3486**			
EMR - MasterOUTPUT - SPST-NO - Coil AC						
230V	4.3mA	39.21.8.230.0060	**190-3487**			
SSR - MasterPLUS - SPST-NO - Input AC/DC						
24V	10.5mA	39.30.0.024.9024	**190-3488**			
125V	5.5mA	39.30.0.125.9024	**190-3489**			
SSR - MasterPLUS - SPST-NO - Input Leakage Current Suppression						
125V	8.4mA	39.30.3.125.9024	**190-3490**			
230V	5.9mA	39.30.3.230.9024	**190-3491**			
SSR - MasterPLUS - SPST-NO - Input Sensitive DC						
6V	7.5mA	39.30.7.006.9024	**190-3492**			
12V	20.7mA	39.30.7.012.9024	**190-3493**			
24V	10.5mA	39.30.7.024.9024	**190-3495**			
60V	6.4mA	39.30.7.060.9024	**190-3496**			
125V	4.6mA	39.30.7.125.9024	**190-3497**			
SSR - MasterPLUS - SPST-NO - Input AC						
230V	4.2mA	39.30.8.230.9024	**190-3498**			
EMR - MasterPLUS - SPDT - Coil AC/DC						
6V	35mA	39.31.0.006.0060	**190-3499**			
12V	15mA	39.31.0.012.0060	**190-3501**			
24V	11mA	39.31.0.024.0060	**190-3502**			
60V	5.7mA	39.31.0.060.0060	**190-3503**			
125V	5.6mA	39.31.0.125.0060	**190-3504**			
EMR - MasterPLUS - SPDT - Coil Leakage Current Suppression						
125V	8.4mA	39.31.3.125.0060	**190-3505**			
230V	5.9mA	39.31.3.230.0060	**190-3506**			
230V	4.3mA	39.31.8.230.0060	**190-3507**			
SSR - MasterINPUT - SPST-NO - Input AC/DC						
24V	17.5mA	39.40.0.024.9024	**190-3508**			
125V	5.5mA	39.40.0.125.9024	**190-3509**			
SSR - MasterINPUT - SPST-NO - Input Sensitive DC						
6V	7.5mA	39.40.7.006.9024	**190-3510**			
12V	20.7mA	39.40.7.012.9024	**190-3511**			
SSR - MasterINPUT - SPST-NO - Input AC						
230V	4.2mA	39.40.8.230.9024	**190-3513**			
EMR - MasterINPUT - SPDT - Coil AC/DC						
6V	35mA	39.41.0.006.5060	**190-3514**			
12V	15mA	39.41.0.012.5060	**190-3515**			
24V	11mA	39.41.0.024.5060	**190-3516**			
125V	5.6mA	39.41.0.125.5060	**190-3517**			
EMR - MasterINPUT - SPDT - Coil AC						
230V	4.3mA	39.41.8.230.5060	**190-3518**			
SSR - MasterTIMER - SPST-NO - Input AC/DC						
12V	15mA / 23mA	39.80.0.012.9024	**190-3519**			
24V	11mA / 19mA	39.80.0.024.9024	**190-3520**			
EMR - MasterTIMER - SPST-NO - Coil AC/DC						
12V	15mA / 23mA	39.81.0.012.0060	**190-3521**			
24V	11mA / 19mA	39.81.0.024.0060	**190-3522**			
Accessories						
16 Way Jumper Link (Blue)		093.16	**190-3523**			
16 Way Jumper Link (Black)		093.16.0	**190-3525**			
16 Way Jumper Link (Red)		093.16.1	**190-3526**			
Separator (1.8mm or 6.2mm)		093.60	**190-3527**			
Output Fuse Module		093.63	**190-3528**			
Adapter		093.68.14.1	**190-3529**			

3A, 4 x SPNO Relay Modules

OMRON

G6D-4B Series

- Compact terminal relay with 4 x SPNO Outputs
- Equipped with 4 G6D-1A relays providing 3A switching capability
- LED operation indicator
- Equipped with diode to absorb coil surge
- DIN rail or screw mountable
- Individual relays are **UL** Recognised and **CSA** approved

H=94 W=28 D=45

Contact arrangement	4 SPNO	Coil consumption	200mWmW
Contact rating	3A @ 250Vac/30VdcAVV	Coil operating range	70-130%%
Contact meterial	Silver		

207124

COIL Volts	Ω	Mftrs. List No.	Order Code	Price Each 1+	+	+	+
4 SPNO-G6D-4B Series							
24V dcV2.88		G6D-4B 24DC	**994-5466**				

Replacement Relays			1+	+	+	+
12V dcV720	G6D-1A-ASI 12DC	**981-2679**				
24V dcV2.88	G6D-1A-ASI 24DC	**981-2687**				

Single Pole Change Over - 6A

Tyco Electronics

ST Relay Package

- Package consists of DIN-rail socket and ST relay
- Electrical indicator LED standard
- AC and DC versions
- Protection citcuit
- Screw terminals
- **VDE** Approved and **UL**(United States and Canada) Recognised

For individual ST relays see the V23092 Series relay section of the main catalogue

Contact arrangement	SPCO
Contact current rating	6A
Dielectric strength - coil to contacts	4 kV / 8mm
Contact material	$AgSnO_2$
Contact plating (9659463 & 9659510 only)	Gold

H = 94, W = 80, D = 6.2mm

RoHS ● Compliant ▲ Non-compliant

List No.	Order Code	List No.	Order Code
ST3P2LC4	965-9463	ST3P3LC4	965-9480
ST3P3LB2	965-9471	ST3P3TP0	965-9501

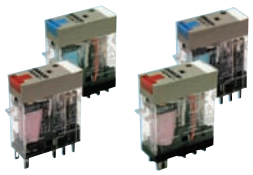
411415

COIL Voltage	Order Code	Price Each 1+	20+	50+	100+	250+
Screw terminals						
24V	**965-9463●**					
12V	**965-9471●**					
24V	**965-9480●**					
230V	**965-9501●**					

5A & 10A with Opto Indicator

OMRON

G2RS Series



- Environmently friendly construction - Cd and Pb free
- AC type with coil disconnection self diagnostic function
- High switching power
- Lockable test button model available

Slim styled relays ideal for space saving when used as an interface between a PLC and input/output devices. Relays have an LED indicator and come with a nameplate and mechanical indicator as standard. Lockable test button version available .
The plug in terminals give good electrical and mechanical connections when used with the easy eject socket. Terminals accept 4.8 x 0.5mm "fast-on" connectors. **UL** Recognised, **CSA**, **VDE** and **LR** approved.

G2R Electromechanical Relay

Contact arrangement	SPCO/SPCO	Coil consumption	530mW
Contact rating (SPCO)	10A @ 250Vac / 30V dc	Operate/release	15ms/5ms (dc) 10ms (ac)
Contact rating (DPCO)	10A @ 250Vac / 30V dc	Coil operating range	80 - 120% @ 50°C
Contact material	Silver Cadmium Oxide	Temperature range	-40°C - 70°C

271317

COIL Volts	Ω	Mftrs. List No.	Order Code	Price Each 1+	20+	100+	250+
SPCO, 10A - G2R-1-SN Series (with LED indicator)							
24V ac	253	G2R-1-SN 24AC	**437-5154●**				
110V ac	5.566	G2R-1-SN 110AC	**437-5166●**				
230V ac	27.172	G2R-1-SN 230AC	**437-5178●**				
12V dc	278	G2R-1-SN 12DC	**437-5180●**				
24V dc	1.113	G2R-1-SN 24DC	**437-5191●**				
SPCO, 10A - G2R-1-SND Series (with LED indicator and Diode)							
12V dc	278	G2R-1-SND 12DC	**437-5208●**				
24V dc	1.113	G2R-1-SND 24DC	**437-5210●**				
SPCO, 10A - G2R-1-SNI Series (with LED indicator and Test Button)							
24V ac	253	G2R-1-SNI 24AC	**437-5221●**				
230V ac	27.172	G2R-1-SNI 230AC	**437-5245●**				
12V dc	278	G2R-1-SNI 12DC	**437-5257●**				
24V dc	1.113	G2R-1-SNI 24DC	**437-5269●**				
SPCO, 10A - G2R-1-SNDI Series (with LED indicator and Diode and Test Button)							
12V dc	278	G2R-1-SNDI 12DC	**437-5270●**				
24V dc	1.113	G2R-1-SNDI 24DC	**437-5282●**				
DPCO, 5A - G2R-2-SN Series (with LED indicator)							
24V ac	253	G2R-2-SN 24AC	**437-5294●**				
110V ac	5.566	G2R-2-SN 110AC (S)	**437-5300●**				
230V ac	27.172	G2R-2-SN 230AC	**437-5312●**				
12V dc	278	G2R-2-SN 12DC	**437-5324●**				
24V dc	1.113	G2R-2-SN 24DC	**437-5336●**				
DPCO, 5A - G2R-2-SND Series (with LED indicator and Diode)							
12V dc	278	G2R-2-SND 12DC	**437-5348●**				
24V dc	1.113	G2R-2-SND 24DC	**437-5350●**				
DPCO, 5A - G2R-2-SNI Series (with LED indicator and Test Button)							
230V ac	27.172	G2R-2-SNI 230AC	**437-5385●**				
24V dc	1.113	G2R-2-SNI 24DC	**437-5403●**				
DPCO, 5A - G2R-2-SNDI Series (with LED indicator and Diode and Test Button)							
12V dc	278	G2R-2-SNDI 12DC	**437-5415●**				
24V dc	1.113	G2R-2-SNDI 24DC	**437-5427●**				
Sockets							
SPCO surface/DIN rail		P2RF-05-E	**134-0954●**				
SPCO PCB		P2R-05P	**994-5415●**				
DPCO PCB		P2R-08P	**134-0957●**				
Common busbar (connects 16 surface/DIN rail sockets)							
		G78-16-P2RF-E	**137-2569●**				

Single Pole 10A Relay Interface Module

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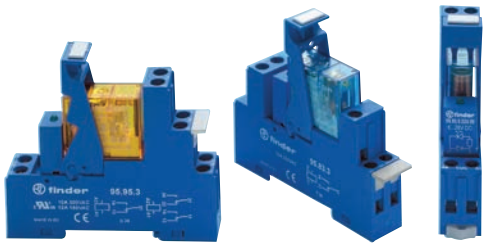


- Ideal interface for PLC and electronic control systems
- Insulation between coil and contacts 6kV (8mm)
- Supply status indication and coil suppression module included
- Relay ejection/retaining clip included
- Identification label included
- 15.5mm wide
- 35mm rail mounting
- Approvals include UL, CSA, VDE and Lloyds register

Output	SPDT	Breaking Capacity DC1 30V dc	10A
Rated Current/Max Peak Current	10/20A	Minimum Switching Load	300mW
Rated Voltage/Max Switching Voltage	250/400VAC	Contact Material	AgNi
Rated Load AC1	2500 VA	Electrical Life at Rated Load AC1	200,000 Cycles
Rated Load AC15	500 VA	Ambient Temperature	-40 to 70°C
Single Phase Motor Rating 230V ac	0.37kW	Protection Category	IP20

475863

Supply Voltage	Mftrs. List No.	Order Code	Price Each 1+	5+	10+
12VDC	49.31.7.012.0050SPA	**134-4202●**			
24VDC	49.31.7.024.0050SPA	**134-4203●**			
230VAC	49.31.8.230.0060SPA	**134-4205●**			

2 pole 12A, 3 pole 10A and 4 pole 6A

Tyco Electronics

PT Relay Package

- Package consists of DIN-rail socket, plastic retaining clip, module with red LED and PT relay
- Mechanical and electrical indicator
- Manual test tab
- **UL**(United States and Canada) Recognised and **VDE** approved

For individual PT relays see the Relay section of the main catalogue

H = 58, W = 73.5, D = 27mm

	PT2S	PT3S	PT5S
Contact arrangement	DPCO	3PCO	4PCO
Contact current rating	12A	10A	6A
Rated voltage	250V	250V	250V
Maximum switching voltage	440VAC	440VAC	440VAC
Maximum breaking capacity ac	3000 VA	2500 VA	1500 VA
Make current	24 A	20 A	12 A

Coil Current	Voltage	Ω ±10%	Mftrs. List No.	Order Code
62.5mA	12V	192	PT2S7LB2	102-4025
31.3mA	24V	777	PT2S7LC4	102-4026
41.6mA	24V	192	PT2S7RC4	102-4027
62.5mA	12V	192	PT3S7LB2	102-4029
31.3mA	24V	777	PT3S7LC4	102-4030
4.3mA	230V	19.465	PT3S7TD0	102-4032
62.5mA	12V	192	PT5S7LB2	102-4033

311596

COIL Voltage	Order Code	Price Each 1+	20+	50+	100+	250+
DPCO						
12Vdc	**102-4025●**					
24Vdc	**102-4026●**					
3PCO						
12Vdc	**102-4029●**					
24Vdc	**102-4030●**					
230Vac	**102-4032●**					
4PCO						
12Vdc	**102-4033●**					

58 Series Relay Interface Module

7A 4PCO

- 35mm DIN rail (EN 50022) mount
- DC version complete with LED and protection diode module
- AC version complete with LED and varistor module
- Isolation to VDE0100
- 2kV isolation between coil and contacts, 1.55kV contact to contact
- Relays approved to **CSA, DEMKO, NEMKO, SEMKO, SEV, BEAB, GOST, IMQ, UTE** and **VDE**

Contact arrangment	4PCO 7A	Load switching min.	300mW
Current rating Max/peak	7/15A	Temperature operating	-40°C to 70°C
Voltage Rating/switching max	250/250	Category protection	**IP 20**
Load rating AC1/AC15	1750/350 VA		

Order Code	Mftrs. List	Order Code	Mftrs. List
116-9314	58.34.8.024.0060SMA	116-9316	58.34.9.012.0050SMA
116-9315	58.34.8.230.0060SMA	116-9317	58.34.9.024.0050SMA
176-5089	58.34.8.110.0060SMA		

248989

COIL Volts	Ω	Order Code	Price Each 1+	25+	100+	250+	500+
4PCO, 7A - 58.34 Series							
24V ac	190	**116-9314●**					
110V ac	4K	**176-5089●**					
230V ac	17K	**116-9315●**					
12V dc	140	**116-9316●**					
24V dc	600	**116-9317●**					

8A/10A/16A SPCO & DPCO
48 Series Relay Interface Module

- 35mm DIN rail (EN 50022) mount
- DC version complete with LED and protection diode
- AC version complete with LED and varistor module
- Sensitive coil
- 4kV/8mm isolation between coil and contacts
- Relays approved to **CSA, VDE, SEV, SETI, BEAB, SEMKO, DEMKO, IMQ**, and **UL** Recognised

Contact arrangment	SPCO 10A	SPCO 16A	DPCO 8A	DPCO 10A
Current rating Max/peak	10/20A	16/30A	8/15A	10/20A
Voltage Rating/switching max	250/400	250/400	250/250	250/400
Load rating AC1/AC15	2500/500 VA	4000/750 VA	2000/400 VA	2500/500 VA
Load switching min.	500mW	500mW	500mW	500mW
Temperature Range	-40°C to 70°C			
Category protection	**IP 20**			

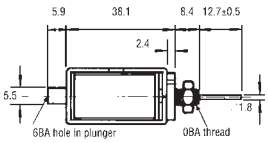
Order Code	Mftrs. List No.	Order Code	Mftrs. List No.	Order Code	Mftrs. List No.
116-9363	48.31.8.230.0060SPA	176-5081	48.61.8.024.0060SPA	116-9323	48.52.7.024.0050SPA
176-5080	48.31.8.110.0060SPA	176-5082	48.61.8.110.0060SPA	116-9364	48.62.7.012.0050SPA
116-9359	48.31.7.012.0050SPA	116-9325	48.61.8.230.0060SPA	116-9365	48.62.7.024.0050SPA
116-9360	48.31.7.024.0050SPA	116-9327	48.61.7.024.0050SPA	116-9322	48.52.7.012.0050SPA
116-9320	48.51.7.024.0050SPA	116-9321	48.52.8.230.0060SPA		

248947

COIL Volts	Ω	Order Code	Price Each 1+	25+	100+	250+	500+
SPCO, 10A - 48.31 Series - 3.5mm Pin Pitch							
110V ac	6.9K	**176-5080●**					
230V ac	28K	**116-9363●**					
12V dc	300	**116-9359●**					
24V dc	1.2K	**116-9360●**					
SPCO, 10A - 48.51 Series - 5mm Pin Pitch							
24V dc	1.2K	**116-9320●**					
SPCO, 16A - 48.61 Series							
24V ac	320	**176-5081●**					
110V ac	6.9K	**176-5082●**					
230V ac	31.5K	**116-9325●**					
12V dc	300	**116-9326●**					
24V dc	1.2K	**116-9327●**					
DPCO, 8A -48.52 Series							
230V ac	31.5K	**116-9321●**					
12V	300	**116-9322●**					
24V dc	1.2K	**116-9323●**					
DPCO, 10A -48.62 Series							
12V dc	300	**116-9364●**					
24V dc	1.2K	**116-9365●**					

Solenoids

Miniature - SM0 — KEYSWITCH



H=18.3, W=15.9, Leads=150

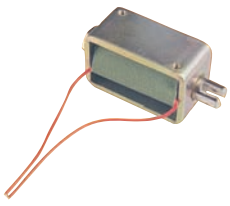
A solenoid suitable for light high speed duty and capable of operating in excess of 300 cycles/minute. Pull or thrust action. Maximum stroke 16mm.

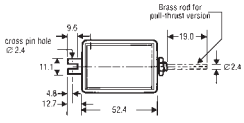
Pull force, continuous	25gf @ 8.0mm, 70gf @ 3.0mm
Pull force, 25% duty:	70gf @ 8.0mm, 300gf @ 3.0mm
Coil consumption:	3W continuous, 24W@ 25% duty

207137

Voltage	Order Code	Price Each 1+	10+	50+
12Vdc	**118-1451●**			

Standard - SM2 Series — KEYSWITCH





H=31.8, W=25.4, Leads=150

The solenoids are designed not to jam even in the event of coil collapse. Pull or pull-thrust action. Maximum stroke at continuous rating 16mm. Fixing is by 2 x 4BA tapped holes on both side and end plates.

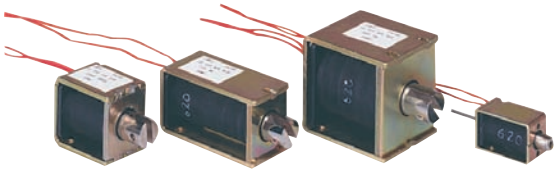
Pull force, continuous	70gf @ 16.0mm, 150gf @ 10.0mm
Pull force, 25% duty:	250gf @ 16.0mm, 550gf @ 3.0mm
Coil consumption:	6W continuous, 24W@ 25% duty

207138

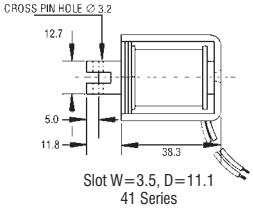
Voltage	Order Code	Price Each 1+	10+	50+	100+	250+
Pull Type						
12V dc	**118-1448●**					
24V dc	**118-1449●**					

Miniature and Standard Size Solenoids

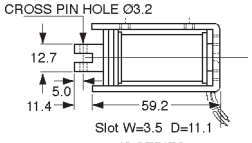
Monostable - Pull Action



41 Series H=32, W=26.7 | 42 Series H=32, W=26.7 | 43 Series H=47.5, W=41.5 | 44 Series H=19.4, W=16

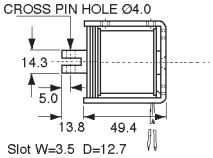


Slot W=3.5, D=11.1
41 Series



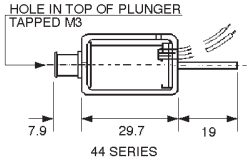
Slot W=3.5 D=11.1
42 SERIES

Slot W=3.5, D=11.1
42 Series



Slot W=3.5 D=12.7
43 SERIES

Serie 43



44 SERIES

44 Series

A range of general purpose, monostable, pull action solenoids designed to give a range of force/size ratios. The coils are all continuously rated at the stated voltages. The 43 series is suitable for heavy-duty applications and the 42 and 147 series provide high forces over longer strokes. The miniature 44 series offers high force for short stroke applications,

where the sub-miniature 133 and 134 series are ideal for discrete small force/stroke applications where space is at a premium.
120-7155, 120-7156 and 120-7157 come complete with an anti-residual "push-off" spring.

Series	Pull force, continuous	Pull force, 25% duty	Closed power, continuous
41, dc	400gf @ 4mm, 100gf @ 8.0mm	gf @ 16.0mm, gf @ 3.0mm	6.5W
41, ac	300gf @ 4mm, 200gf @ 10.0mm	1500gf @ 4.0mm, 700gf @ 10.0mm	10.5W
42, dc	350gf @ 4mm, 150gf @ 8.0mm	1250gf @ 6.0mm, 300gf @ 18.0mm	10W
43, dc	1150gf @ 3mm, 150gf @ 9.0mm	3700gf @ 3.0mm, 1500gf @ 9.0mm	12W
44, ac	80gf @ 2.0mm, 25gf @ 8.0mm	230gf @ 2.0mm, 55gf @ 8.0mm	3W

207152

Voltage	Mftrs. List No.	Order Code	Price Each 1+	10+	20+	50+
41 Series						
12V dc	41 120 610 620	**968-7769●**				
24V dc	41 120 610 720	**968-7777●**				
42 Series						
12V dc	42-120-610-620	**968-7831●**				
12V dc	42-120-611-620	**120-7156●**				
24V dc	42-120-610-720	**968-7840●**				
43 Series						
12V dc	43-120-610-620	**968-7866●**				
24V dc	43-120-610-720	**968-7874●**				
44 Series						
6V dc	44A-220-620-540	**968-7890●**				
12V dc	44A-220-620-620	**968-7904●**				
12V dc	44A-220-621-620	**120-7157●**				
24V dc	44A-220-620-720	**968-7912●**				
24V dc	44A-220-621-720	**120-7158●**				

DC Pulse Operated

Pull type - Latching

65 Series H=10, W=22, D=15, Leads=203mm | 66 Series H=14, W=30, D=16, Leads=203mm | 67 Series H=15.5, W=40, D=19, Leads=203mm | 68 Series H=21.5, W=36, D=26, Leads=203mm

A latching or bi-stable solenoid incorporates a set of permanent magnets that allows the solenoid to offer hold force even after the power has been disconnected. The term bi-stable is given to this type of solenoid because it has two stable positions. The first is when the solenoid is de-energised and the plunger is fully extended in the open position. The second position is when the solenoid is energised and the plunger is attracted into its closed position, the power can then be removed and the plunger will be held in place with the permanent magnets. The electrical force moves the solenoid from the open position to the closed position. The closed stable position can be neutralised by applying a reverse polarity across the coil, this neutralises the effects of the permanent magnets and allows the plunger to be withdrawn from the body and back into the open position by means of a spring or other external force.

- No self heating
- Continues to hold even after the power is disconnected
- Can operate by a pulse signal
- A charge / discharge of capacitor will be enough to set and reset

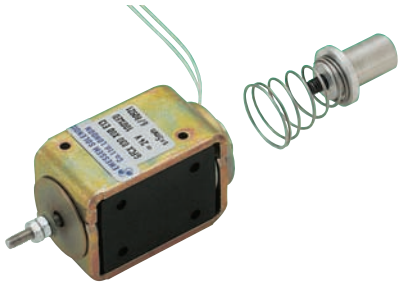
Series	Voltage	Coil consumption	Magnet holding force @ 25°C	Mftrs. List No.	Order Code
65★	12V	3W	0.3kgf	65 120 611 620	968-7815
66	12V	3W	0.48kgf	66-120-610-620	968-7947
67	12V	5W	1.0kgf	67-120-610-620	968-7963
68	12V	10W	2.2kgf	68-120-610-630	968-7823

★ With push-off spring

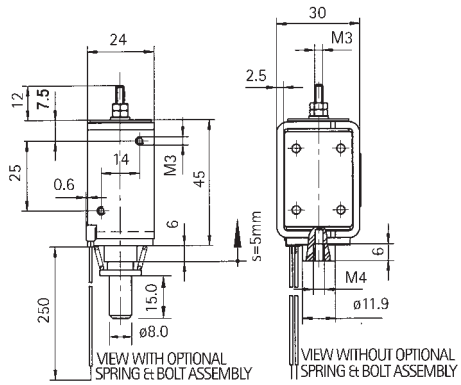
411912

Voltage	Order Code	Price Each 1+	25+	100+	250+	500+
65 Series						
12V	**968-7815●**					
66 Series						
12V	**968-7947●**					
67 Series						
12V	**968-7963●**					
68 Series						
12V	**968-7823●**					

High-Performance, Long-Life Solenoids



GFCX 030 solenoid with optional spring return and bolt



- High-performance device for push-and-pull operation
- Armature supported by PTFE-lined bearings for arduous, long-life applications
- Vibration and shock-resistant injection-moulded coil with class F insulation
- Optimised flux-path design for maximum force from minimum electrical power in compact space envelope
- Electroplated frame, armature and pole piece for corrosion resistance
- Conical spring-return assembly / shotbolt end (accessory pack)
- Tapped armature / threaded pushrod for attachment to host mechanism

High force dc solenoid for arduous applications requiring long-term reliability and highly repeatable operation. Available with 24volt 100% or 15% rated coils (24V 15% coil can be used for 12V 100% rated applications if solenoid is mounted on a suitable heatsink).

Supply Voltage Vdc	Duty Rating %	Rated Stroke mm	Holding Force N	Magnetic Force at Rated Stroke N	Power Consumption W	Order Code
24	100	5	1.1	4.3	7	116-2564
24	15	5	2.5	14.2	36	116-2565

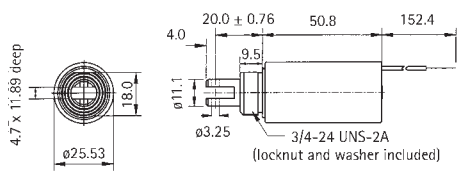
205718

Description	Order Code	Price Each 1+	5+	10+	25+	50+
GFCX030X00E13,24V100%	**116-2564●**					
GFCX030X00E13,24V15%	**116-2565●**					
GFCX030 SPRING SET	**116-2566●**					

Cylindrical Solenoids

R16 x 16 cylindrical solenoid

- Available with 24 volt continuous or intermittent coils
- Robust, enclosed coil design with threaded nose for mounting through bulkhead
- Integral clevis end for pull operation
- Compact, long stroke design
- Threaded mounting nose with anti-rotation feature, locknut and shakeproof washer
- Electroplated body, armature and pole piece for corrosion resistance
- Coil insulation to class B



Supply Voltage V dc	Duty Rating	Maximum Stroke mm	Holding Force N	Magnetic Force at Max. Stroke N	Power Consumption W	Mftrs. List No.
24	100%	25	25.3	0.1	5.5	R16X16,24V100%
24	15%	25	35.6	1.2	38	R16X16,24V15%

Force figures:±10%, solenoid HOT condition and heat-sink mounting (6"x6"x.125" steel), rated voltage
Power consumption figures: 25°C coil temperature

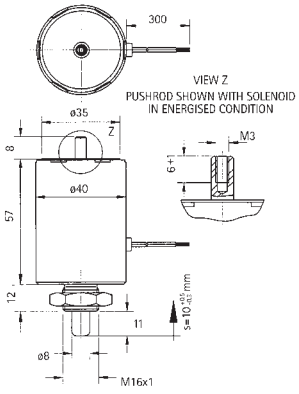
Cylindrical Solenoids - continued

205719

Duty Rating	Order Code	Price Each 1+	5+	10+	25+	50+	100+
Continuous	116-2567●						
Intermittent	116-2568●						

Heavy-duty, Long-Life

MAGNETSCHULTZ



- For use in fail-safe locking of guards, drawers and covers
- Solenoid-operated bolt with integral spring return
- Spring to lock, energise to unlock
- Available with 12V or 24V 100% rated coils
- Bolt and armature supported in PTFE-lined bearings for arduous, long-life applications
- Robust cylindrical construction with electroplated body for corrosion resistance
- Threaded mounting nose with locknut
- Long stroke design with increasing force characteristic
- Stainless steel bolt with spherical end for 'slam-shut' applications
- Tapped pushrod for possible attachment of manual override or limit switch actuator
- Simple installation and control
- Totally-enclosed coil with class F insulation

Supply Voltage V dc	Duty Rating %	Stroke mm	Power Consumption W	Max. Radical Bolt Load Static N	Max. Radical Bolt Load Stroke N	Mftrs. List No.
24	100	10	12.9	1500	8	GHUZ040M20D03,24V100%
12	100	10	12.9	1500	8	GHUZ040M20D01,12V100%

Force figures:±10%, sollenoid HOT condition and heat-insultated mounting, 90% of rated voltage
Power consumption figures: 20°C coil temperature

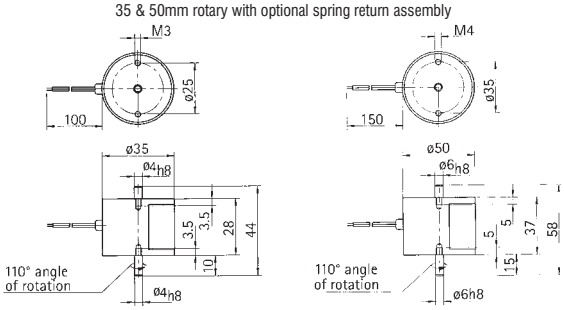
205724

Supply Voltage	Order Code	Price Each 1+	5+	10+	25+	50+	100+
24	116-2576●						
12	116-2577●						

Proportional Double-Acting

MAGNETSCHULTZ

35 & 50mm rotary with optional spring return assembly



- Double-acting function (by reversing polarity of supply)
- Torque output proportional to input current and constant over rotation angle
- Rapid response : function of low magnetic and mechanical inertia
- Long service life and accurate positioning through use of precision ball bearings
- Pure rotary motion through 110° angle of rotation (no axial linear movement)
- Encapsulated coil with insulation to class B
- Low temperature rise by use of voltage control
- Fail-safe mode provided by spring return (optional)

Proportional, double-acting rotary solenoid for applications requiring long service life and high reliability.
Available with 24 volt 100% or 15% rated coils (24V 15% coil can be used for 12 volt 100% rated applications, if solenoid is mounted on a heatsink).

Torque figures: ±10%, solenoid HOT condition and heat-insulated mounting, 90% of rated voltage
Power consumption figures: 20° coil temperature

Size mm ∅	Supply Voltage v dc	Duty Rating %	Output Torque Ncm	Power Consumption W	Mftrs. List No.	Order Code
35	24	100%	2.1	6.9	GDRX035X20A01,24V100%	116-2569
35mm Spring Return					GDRX03550mm Spring Return Set	116-2571

205720

Description	Duty Rating	Order Code	Price Each 1+	5+	10+	25+	50+
35mm Solenoid	100%	116-2569●					
35mm Spring Return	—	116-2571●					

Miniature Solenoid Valves

CAMOZZI

Connector supplied — Valve
H=22, W=58, D=30 (excl blades), D=61 (overall with connector)
Mounting holes=2 x M4 tapped,. Fixing centres=134

A range of direct action, 3-way solenoid operated valves singularly mounted with ⅛" BSP ports. By inserting a 146-372 plug (M5 thread) with a 146-373 nylon washer in the venting port, the valve is converted to a 2-way valve.

The body is manufactured in brass with stainless steel inner parts and nitrile rubber seals making it ideally suited for controlling the flow of air and other non-corrosive gasses with a maximum differential pressure of 150psi (10 bar). Electrical connection is by a three pin DIN 40050 connector which is available separately.

The connector is complete with sealing ring and fixing screw giving protection to **IP65**.Connection pins are 6.35mm blade types allowing the connection by 'Fast-On'connectors as an alternative.

Coil consumption	ac 8.5VA dc 5W	Temperature range	-10°C to +50°C
Coil operating rate	ac 85-110% dc 95-100%	Fluid temperature	50°C max
		Orifice size	1.5mm (exhaust 1.8mm)

Mftrs. List No: A331-1-C2-A73=285-079 A331-1-C2-A7D=285-080 A331-1-C2A7M=285-092

227662

Order Multiple=1 Voltage	Order Code	Price Each 1+	10+	25+
Valves (including connector)				
24Vdc	285-079			
110Vac	285-080			
240Vac	285-092			
Order Multiple=3		3+	12+	24+
Plug	146-372			
Spare Connector				
Without lamp	146-374			

DIN Valve Connectors

Brad

NEW

New generation external-thread DIN Valve Connectors with unsurpassed IP67 sealing properties and superior cable retention increase performance and reliability, simplify the manufacturing process and reduce overall applied costs for hydraulic, pneumatic and electromagnetic devices.

- Ergonomic external-nut design provides greater and consistent torque for a more uniform seal between connector and cable
- Conforms to industry standard interface EN 175301-803 (formerly DIN 43650)
- Cable retention force increased by up to 115% over internal-nut designs for increased reliability
- Waterproof rating of IP67
- Accommodates PG9, PG11 cable and up to 9mm outer cable diameter
- Connectors supplied in a 'ready-to-use' disassembled condition; saves the customer time
- One size fits all cables! Reduces customer inventory, contributing to cost savings; eliminates installation errors
- Plus / minus screw head on terminal enables the use of air tools in volume production

659680

RoHS ● Compliant ▲ Non-compliant

Description	Mftrs. List No.	Order Code	Price Each 1+	5+	10+
Form A to M12, 5 Pole					
0.3m lead	121035-0207	**190-0564**			
0.6m lead	121035-0208	**190-0565**			
1m lead	121035-0201	**190-0563**			
3m lead	121035-0290	**190-0566**			
5m lead	121035-0291	**190-0567**			
Form A to M12, 5 Pole with LED					
0.3m lead	121036-0399	**190-0574**			
0.6m lead	121036-0192	**190-0568**			
1m lead	121036-0193	**190-0569**			
1.5m lead	121036-0194	**190-0570**			
2m lead	121036-0195	**190-0571**			
3m lead	121036-0356	**190-0573**			
10m lead	121036-0594	**190-0575**			
Form A, 2 Pole					
1m lead	121040-0092	**190-0576**			
2m lead	121040-0644	**190-0580**			
3m lead	121040-0096	**190-0577**			
5m lead	121040-0107	**190-0578**			
10m lead	121040-0614	**190-0579**			
PG9 with 12 o'clock ground	1210230238	**190-0605**			
PG11 with 12 o'clock ground	1210230278	**190-0606**			
With ground	1212010034	**190-0611**			
Black Nitrile Gasket	121201-0001	**190-0585**			
Form A, 2 Pole with LED					
2m lead	121050-2471	**190-0582**			
3m lead	121050-2177	**190-0581**			
5m lead	221050-5226	**190-0591**			
10m lead	121050-3274	**190-0583**			
Nitrile gasket	121207-0004	**190-0588**			
Form A, 3 Pole					
Cylindrical	1210120019	**190-0595**			
2 hole mount	1210120076	**190-0598**			
4 hole mount	1210120099	**190-0600**			
PG9 with 12 o'clock ground	1210230341	**190-0607**			
PG11 with 12 o'clock ground	1210230377	**190-0608**			
Form B, 2 Pole					
10mm with nitrile gasket	121203-0001	**190-0587**			
11mm with nitrile gasket	121202-0001	**190-0586**			
10mm with ground	1212030009	**190-0613**			
11mm with ground	1212020012	**190-0612**			
PG9 with 12 o'clock ground	1210230122	**190-0604**			
Form B, 2 Pole with LED					
10mm with nitrile gasket	121209-0037	**190-0590**			
11mm with nitrile gasket	121208-0070	**190-0589**			
Form C, 2 Pole					
PG7 with 6 o'clock ground	1210230085	**190-0603**			
PG7 with 12 o'clock ground	1210230084	**190-0601**			
Preassembled ground	1212040010	**190-0615**			
Micro DIN Form					
PG7 with 6 o'clock ground	1210230438	**190-0610**			
PG7 with 12 o'clock ground	1210230434	**190-0609**			
Preassembled ground	1212050012	**190-0616**			
Bases					
2 pole with ground	1210120006	**190-0592**			
3 pole with ground	1210120007	**190-0593**			
2 pole cylindrical	1210120013	**190-0594**			
2 pole with 2 hole mount	1210120071	**190-0597**			
2 pole with 4 hole mount	1210120095	**190-0599**			