

Plug-in Relays S-RELAY Series 4



RS410024



RS410730



YRS78704



YRSLG230

Schrack-Info

S-RELAY

- Miniature industry-grade relay for multi-purpose application
- AC and DC coil
- Suitable for DIN rail mounted plug-in sockets, for use in control panel building or on PCBs (PCB and soldering connectors)
- Mechanical indicator and lockable test button
- Integrated insulated contact chambers for increased flash-over resistance
- Cadmium-free contact material
- Certificate: VDE

Socket YRS78704

- Socket for S-RELAY Series 4
- Suitable for mounting in electrical enclosures or for DIN rail mounting
- High-grade terminals preventing incorrect insertion
- Captive terminal screws

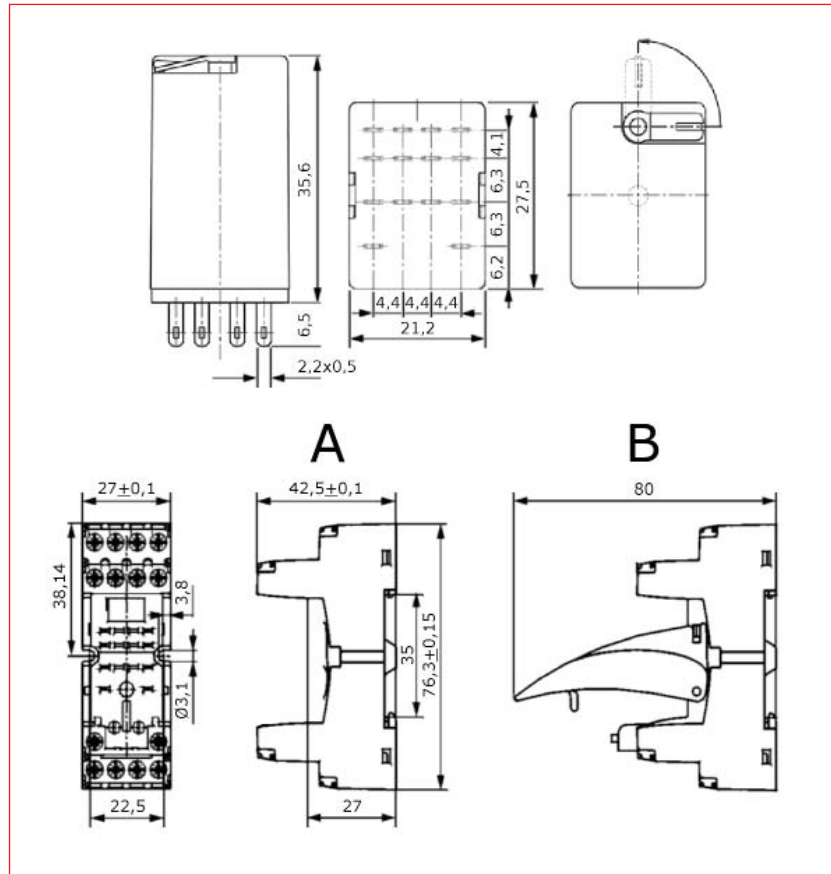
LED and protection modules

- Compatible with socket YRS78704
- LED DC modules with integrated protection diode
- Retrofittable

Plug-in Relays

Plug-in Relays S-RELAY Series 4

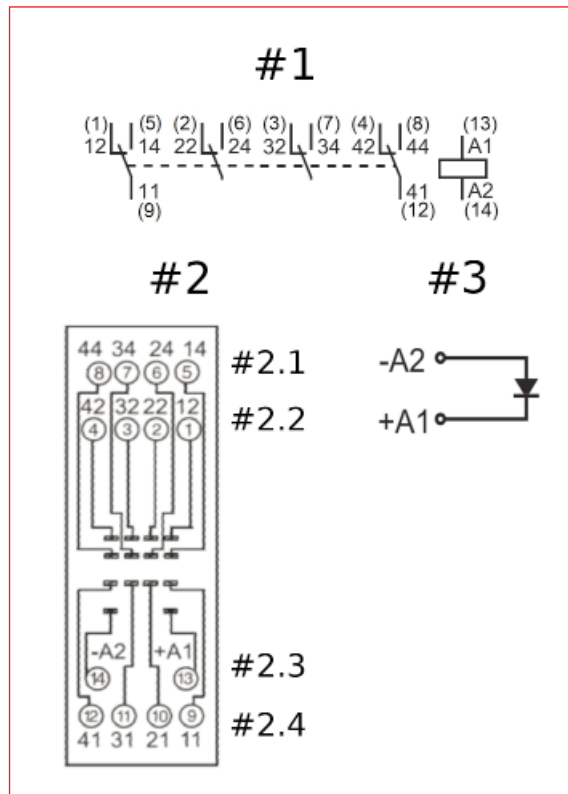
Dimensions (mm)



Dimensions

A	Standard socket
B	Socket with retainer/ retractor clip

Circuit Diagrams

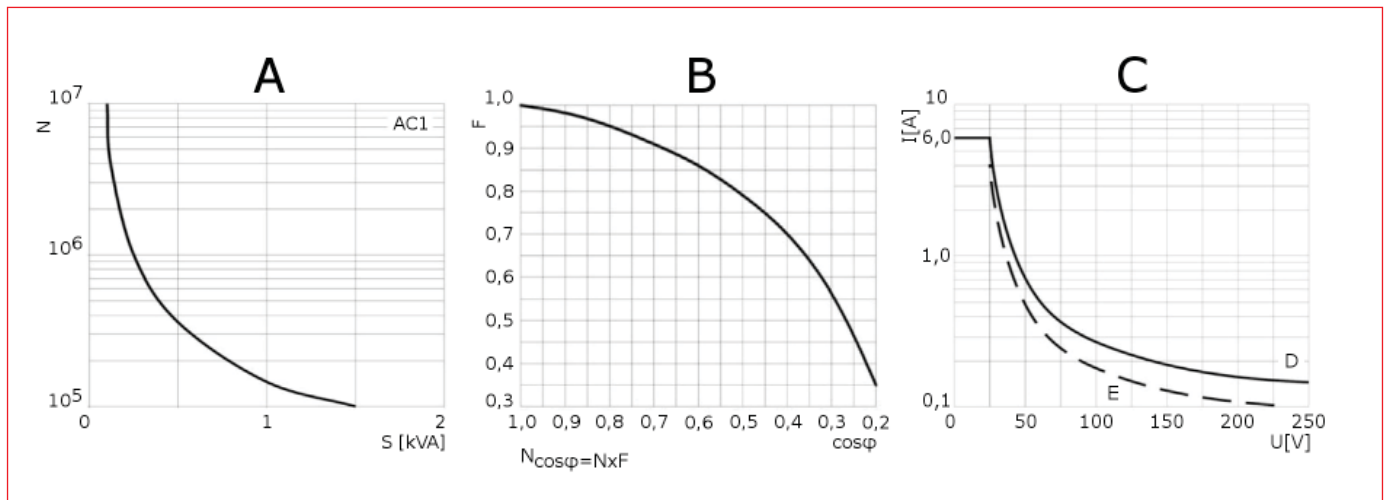


Circuit Diagrams

#1	Circuit diagram	S-RELAY
#2	Terminals	
#2.1	NO contacts	
#2.2	NC contacts	Socket
#2.3	Coil	
#2.4	Com	
#3	Circuit diagram	Protection diode module

Plug-in Relays S-RELAY Series 4

Rated Breaking Capacity, Reduction Factor & Coil Operating Voltage Range



Rated Breaking Capacity, Reduction Factor & Coil Operating Voltage Range

A	Electrical service life at AC resistive load, switching frequency: 1.200 cycles/ hour
B	Electrical service life reduction factor at AC inductive load
C	Max. DC rated breaking capacity
N	Number of cycles/ electrical service life at AC1
S	Rated breaking capacity in [kVA]
F	Reduction factor
cos phi	Power factor
D	Resistive load DC1
E	Inductive load L/R = 40 ms
I	DC current in [A]
U	DC current in [A]

Coil Types

COIL DATA - DC voltage version

Coil code	Rated voltage V DC	Coil resistance Ω at 20 °C	Acceptable resistance	Coil operating range V DC	
				min. (at 20 °C)	max. (at 55 °C)
024 / LC4	24	640	+10 %	19.2	26.4

COIL DATA - AC 50/60Hz voltage version

Coil code	Rated voltage V AC	Coil resistance Ω at 20 °C	Acceptable resistance	Coil operating range V AC	
				min. (at 20 °C)	max. (at 55 °C)
524, R24	24	158	+10 %	19.2	26.4
730 / T30	230	16100	+10 %	184.0	253.0

TECHNICAL DATA, Protection diode module















Voltage	6...230 V DC
Wiring	A1 + A2 -

Plug-in Relays S-RELAY Series 4

Technical Data

CONTACT DATA			
Number and type of contacts			4 CO
Contact material			AgNi
Rated/ max. switching voltage AC			250 / 250 V
Min. switching load			10 V (AgNi)
Rated load (capacity)	AC1		6 A / 250 V
	AC15		1.5 A / 120 V ; 0.75 A / 240 V (C300)
	AC3		125 W (single-phase motor)
	DC1		6 A / 24V DC
	DC13		0.22 A / 120 V DC; 0.1 A / 250 V DC (R300)
Min. switching current			5 mA
Max. inrush current			12 A
Rated current			6 A
Max. rated breaking capacity			1500 VA
Min. rated breaking capacity			0.3 W (AgNi)
Contact resistance			≤ 100 mΩ
Max. operating capacity	At rated load	AC1	1200 cycles/hour
	No load		18000 cycles/hour
COIL DATA			
Rated voltage 50 / 60Hz	AC 50 / 60 Hz		6...240 V
	DC		5...220 V
Must release voltage	AC		≥ 0.2 U _N
	DC		≥ 0.1 U _N
Operating range of supply voltage			See table "Coil types"
Rated power consumption	AC		1.6 VA
	DC		0.9 W
Insulation			According to PN-EN 60664-1
Insulation class			B250
Insulation rated voltage			250 V
Rated surge voltage			2500 V; 1.2 / 50 μs
Overvoltage category			II
Insulation pollution degree			2
Dielectric strength	Between coil and contacts		2500 V (basic insulation)
	Contact clearance		1500 V (micro-disconnection clearance)
	Pole-pole		2000 V (basic insulation)
Contact - coil distance			
Clearance			≥ 1.6 mm
Creepage			≥ 3.2 mm
GENERAL DATA			
Operating/ release time (typical value)	AC		10 / 8 ms
	DC		13 / 3 ms
Electrical service life	Resistive AC1		> 10 ⁵ , 6 A / 250 V
	cos phi		See diagram
Mechanical service life (cycles)			> 2 x 10 ⁷
Dimensions (LxWxH)			27.5 x 21.2 x 35.6 mm
Weight			35g
Ambient temperature	Storage		-40...+85 °C
	Operating	AC	-40...+55 °C
		DC	-40...+70 °C
Cover degree of protection			IP40
Environmental protection			RTI
Shock resistance			10 / 5 g
Vibration resistance			5g; 10...150 Hz
Solder bath temperature			max. 270 °C
Soldering time			max. 5 sec.

Plug-in Relays S-RELAY Series 4

DESCRIPTION	AVAILABLE	ORDER NO.
S-Relay 4 Poles, Series 4		
24V-DC, 4 CO, 6A		RS410024
24V-AC, 4 CO, 6A		RS410524
230V-AC, 4 CO, 6A		RS410730
24V-DC, 4 CO, 6A, with LED and protection diode		RS410LC4
24V-AC, 4 CO, 6A, with LED		RS410R24
230V-AC, 4 CO, 6A, with LED		RS410T30
Socket for S-Relay 4 Poles, Series 4		
Socket with screw terminals 14 pole, mounting on DIN-rail for 4 pole relays 6A		YRS78704
Retaining clip		YRS16016
Marking tag		YRS16040
Modules Matching Plug-in Socket for S-Relays, Series 4		
Protection diode module 6-230V DC, A1+		YRSFL230
LED+PD module, red, 6-24V DC, A1+		YRSLR024
LED+PD module, green, 6-24V DC, A1+		YRSLG024
LED module, red, 110-230V AC		YRSLR230
LED module, green, 110-230V AC		YRSLG230

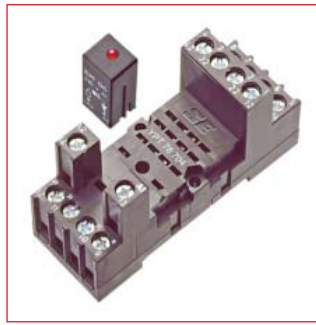


Plug-in Relays

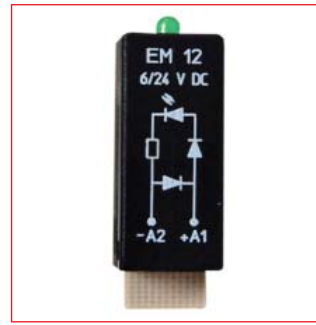
Plug-in Relays Series PT



PT570LC4



YPT78704

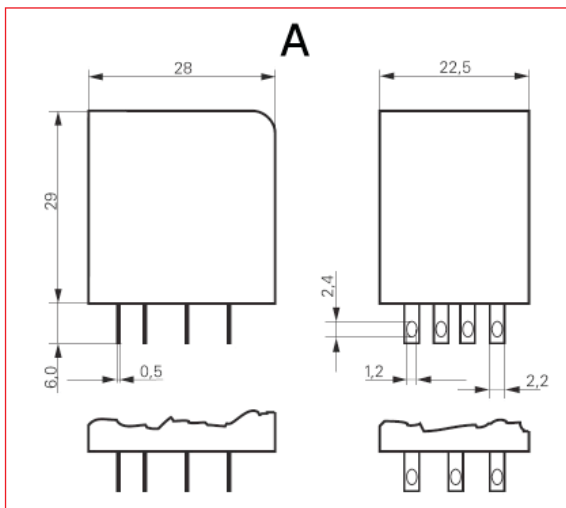


YMLGD024

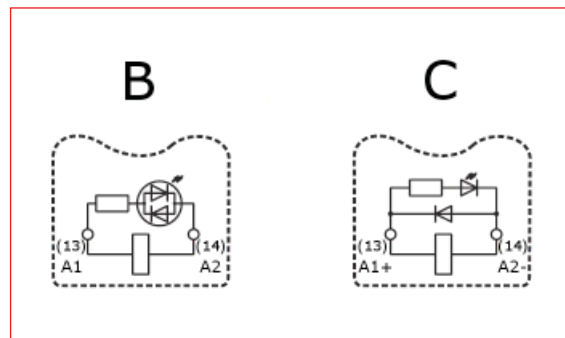
Schrack-Info

- 2 poles 12 A, 3 poles 10 A or 4 poles 6 A
- AC or DC coil
- 2, 3 or 4 CO
- Up to 3000 VA switching capacity
- Component height 29 mm
- Cadmium-free contact material
- Mechanical and electrical status indicator
- Touch protection test switch, choice of locking method
- White labelling field
- Multi-purpose use for control and machine building

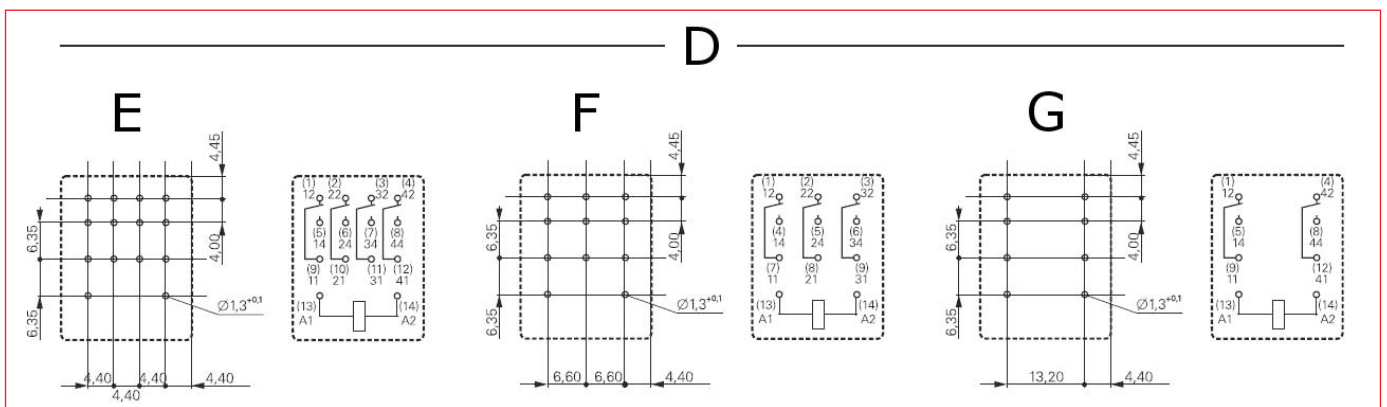
Dimensions (mm)



LED/Protection Diode & LED



Circuit Diagrams

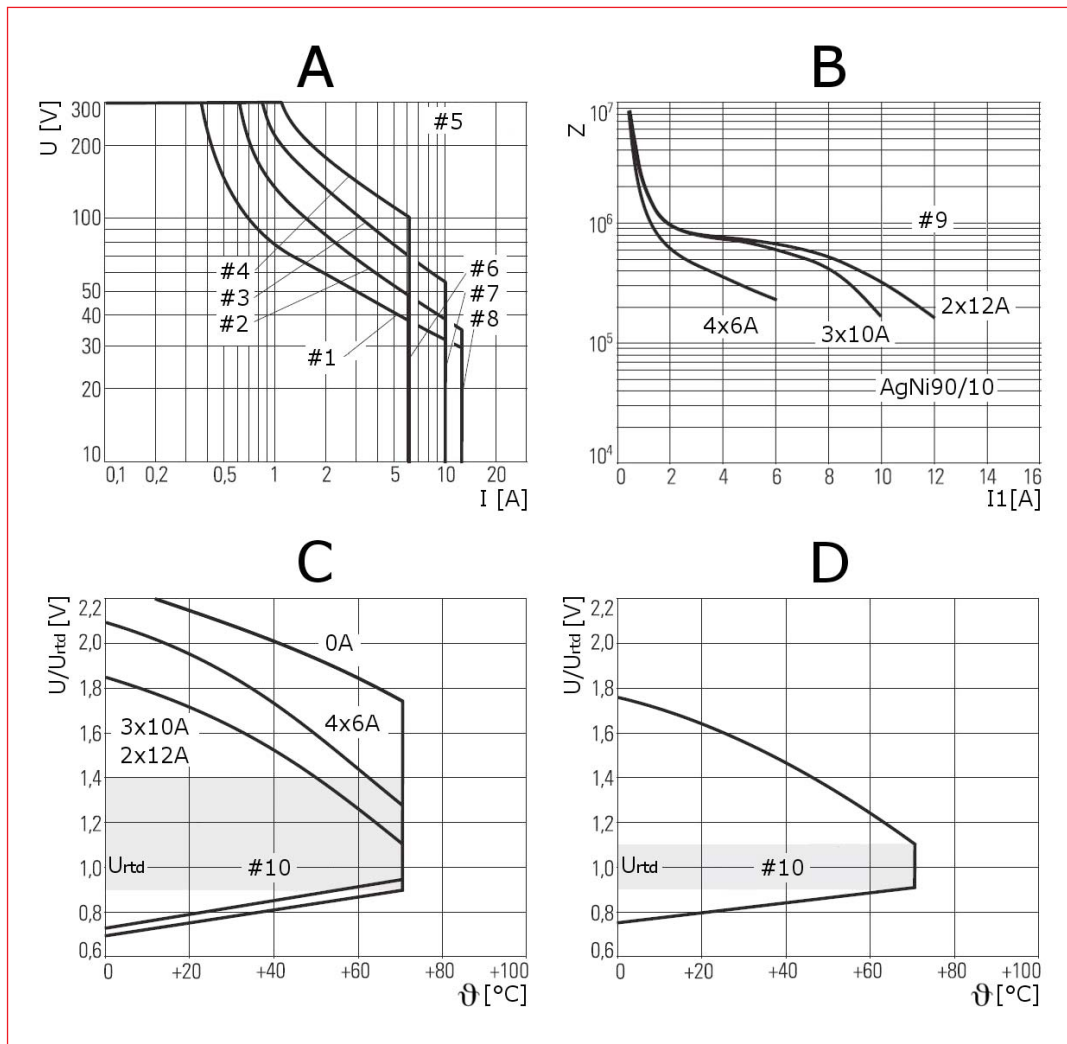


Dimensions & Circuit Diagrams

A	Soldering and plug-in terminals (standard version)
B	LED
C	Protection diode and LED
D	Bottom view on pins
E	4 pole
F	3 pole
G	2 pole

Plug-in Relays Series PT

Rated Breaking Capacity & Coil Operating Voltage Range



Rated Breaking Capacity & Coil Operating Voltage Range

A	Max. DC rated breaking capacity	#7	3 pole
B	Electrical endurance	#8	2 pole
C	Coil operating range DC	#9	250 V AC resistive load
D	Coil operating range AC	#10	Recommended voltage range in [V]
#1	1 contact	U	DC voltage in [V]
#2	2 contacts in series	U/U_{rtd}	Coil voltage in [V]
#3	3 contacts	I	DC current in [A]
#4	4 contacts	I1	Switching current in [A]
#5	Resistive load	Z	Cycles
#6	4 pole	Θ	Ambient temperature in [°C]










Plug-in Relays

Plug-in Relays Series PT

Technical Data













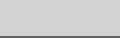















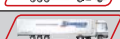








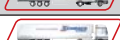






CONTACT DATA		PT2	PT3	PT5
Number of contacts and type		2 CO	3 CO	4 CO
Contact style		Single contact		
Type of disconnection		Micro-switch		
Rated current		12 A	10 A	6 A
Rated voltage/ max. switching voltage AC		240 / 400 V~		240 / 240 V~
Limiting continuous current		12 A	10 A	6 A
Limiting short time current 30 ms		300 A		
Max. rated breaking capacity AC		3000 VA	2500 VA	1500 VA
Limiting making current, max. 20 ms		24 A	20 A	12 A
Contact material		AgNi 90/10, AgNi 90/10 hard gold plated		
Minimal contact load		12 V / 10 mA, 20 mV / 1 mA hard gold plated		
COIL DATA				
Rated voltage	DC coil	6...220 V		
	AC coil	6...230 V~		
Rated power	DC coil	750 mW		
	AC coil	1.0 VA		
Operative range, IEC 61810		2		
Coil insulation system according to UL1446		Class F		
Operation-/ release voltage/ coil resistance at ambient temperature 23 °C	6 V DC coil	4.5 V / 0.6 V / 48 Ω ± 10 %		
	12 V DC coil	9 V / 1.2 V / 192 Ω ± 10 %		
	24 V DC coil	18 V / 2.4 V / 777 Ω ± 10 %		
	48 V DC coil	36 V / 4.8 V / 3072 Ω ± 10 %		
	60 V DC coil	45 V / 6 V / 4845 Ω ± 12 %		
	110 V DC coil	82.5 V / 11 V / 16133 Ω ± 15 %		
	220 V DC coil	165 V / 22 V / 64533 Ω ± 10 %		
	6 V AC coil*	4.8 V / 1.8 V / 11 Ω ± 10 %		
	12 V AC coil*	9.6 V / 3.6 V / 48 Ω ± 10 %		
	24 V AC coil*	19.2 V / 7.2 V / 192 Ω ± 10 %		
	48 V AC coil*	38.4 V / 14.4 V / 777 Ω ± 10 %		
	115 V AC coil*	92 V / 34.5 V / 4845 Ω ± 12 %		
	230 V AC coil*	184 V / 69 V / 19465 Ω ± 15 %		

*50 Hz

DESCRIPTION	AVAILABLE	ORDER NO.
PT Relays 2 Poles		
24V-DC, 2 CO, 12A		PT270024
48V-DC, 2 CO, 12A		PT270048
24V-AC, 2 CO, 12A		PT270524
230V-AC, 2 CO, 12A		PT270730
Socket for PT Relays 2 Poles		
DIN rail mounted plug-in socket for PT2 relays, 8 pole, 12A (2 CO)		YPT78702
Retaining clip metal		PT28800
PT Relays 3 Poles		
24V-DC, 3 CO, 10A		PT370024
110V-DC, 3 CO, 10A		PT370110
24V-AC, 3 CO, 10A		PT370524
230V-AC, 3 CO, 10A		PT370730
Socket for PT Relays 3 Poles		
DIN rail mounted plug-in socket for PT3 relays, 11 pole, 10A (3 CO)		YPT78703
PT Relays 4 Poles		
6V-DC, 4 CO, 6A		PT570006
12V-DC, 4 CO, 6A		PT570012
24V-DC, 4 CO, 6A		PT570024
48V-DC, 4 CO, 6A		PT570048
110V-DC, 4 CO, 6A with LED and protection diode		PT570MBO
60V-DC, 4 CO, 6A		PT570060
110V-DC, 4 CO, 6A		PT570110
125V-DC, 4 CO, 6A		PT570125
220V-DC, 4 CO, 6A		PT570220
6V-AC, 4 CO, 6A		PT570506



Plug-in Relays Series PT

DESCRIPTION	AVAILABLE	ORDER NO.
PT Relays 4 Poles		
12V-AC, 4 CO, 6A		PT570512
24V-AC, 4 CO, 6A		PT570524
48V-AC, 4 CO, 6A		PT570548
115V-AC, 4 CO, 6A		PT570615
230V-AC, 4 CO, 6A		PT570730
24V-DC, 4 CO, 6A with LED and protection diode		PT570LC4
24V-DC, 4 CO, 6A with LED		PT570L24
20V-DC, 4 CO, 6A with LED		PT570N20
24V-DC, 4 CO, 6A with LED		PT570R24
230V-AC, 4 CO, 6A with LED		PT570T30
24V-DC, 4 CO, 6A, gold plated		PT580024
110V-DC, 4 CO, 6A, gold plated		PT580110
220V-DC, 4 CO, 6A, gold plated		PT580220
24V-AC, 4 CO, 6A, gold plated		PT580524
115V-AC, 4 CO, 6A, gold plated		PT580615
230V-AC, 4 CO, 6A, gold plated		PT580730
24V-DC, 4 CO, 6A, gold plated with LED		PT580L24
230V-AC, 4 CO, 6A, gold plated with LED		PT580T30
Socket for PT Relays 4 Poles		
DIN rail mounted plug-in socket for PT5 relays, 14 pole, 6A (4 CO), with spring clamp terminals		PT7874P
Retaining clip for PT socket PT7874P		PT17021
Jumper link, 12A, for PT socket PT7874P		PT170P1
Marking tag		YPT16040
Plug-in Socket for PT Relays, I/O - Logical Arrangement 4 Poles		
DIN rail mounted plug-in socket for PT5 relays, 14-pole, 6A (4 CO) with screw terminals		PT78742
Retaining clip for PT socket PT7874P		PT17021
Jumper bar, 12A, for connection of up to 6 PT sockets YPT78...		PT170R6
Marking tag		YPT16040
Plug-in Socket for PT Relays 4 Poles, Conventional Model		
DIN rail mounted plug-in socket for PT2 relays, 8 pole, 12A (2 CO)		YPT78702
DIN rail mounted plug-in socket for PT3 relays, 11 pole, 10A (3 CO)		YPT78703
DIN rail mounted plug-in socket for PT5 relays, 14 pole, 6A (4 CO)		YPT78704
DIN rail mounted plug-in socket for PT5 relays, 14 pole, 6A (4 CO) with protection diode		YPT78110
Retaining clip		YPT16016
Retaining clip for PT socket PT78xx		PT17024
Jumper bar, 12A, for connection of up to 6 PT sockets YPT78...		PT170R6
Marking tag		YPT16040
Modules Matching Plug-in Socket for PT Relays		
LED module, red, 6-24V AC/DC, EM07		YMLRA024
LED module, red, 6-24V DC, A1+, EM18		YMLRD024-A
LED module, red, 6-24V DC, A1-, EM08		YMLRD024
LED module, red, 110-230V AC, EM06		YMLRW230
LED module, green, 6-24V AC/DC, EM11		YMLGA024
LED module, green 6-24V DC with protection diode, A1+, EM12		YMLGD024
LED module, green, 110-230V AC, EM10		YMLGW230
Protection diode module 6-230V DC, A1+, EM09		YMF DG230
RC Network module 6-60V AC, EM02		YMRCW024
RC Network module 110-230V AC, EM03		YMRCW230
Varistor module, 24V-AC, EM04		YMVAV024
Varistor module 230V-AC, EM05		YMVAV230



Order no. blue: on stock, usually ready for delivery on the day of order