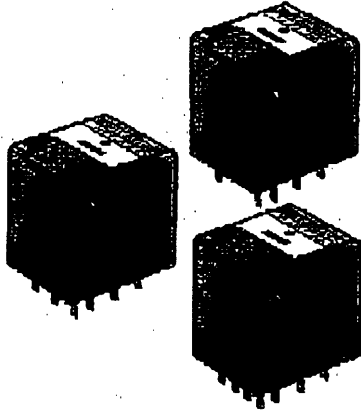


# Miniature Relay PT

2 pole 12 A, 3 pole 10 A or 4 pole 6 A  
DC- or AC-coil



- 2, 3 or 4 C/O contacts
- Switching performance up to 3000 VA
- Relay height 29 mm
- Cadmium-free contact material
- Mechanical indicator
- Manual test tab, optionally lockable.
- White marking tabs

Applications  
Universal use in control and automation

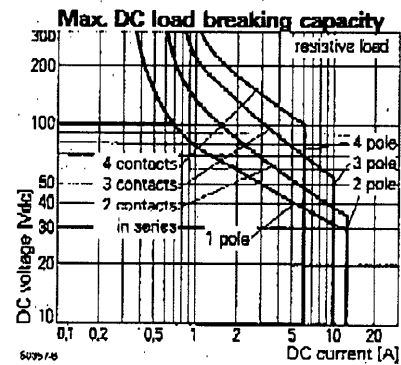
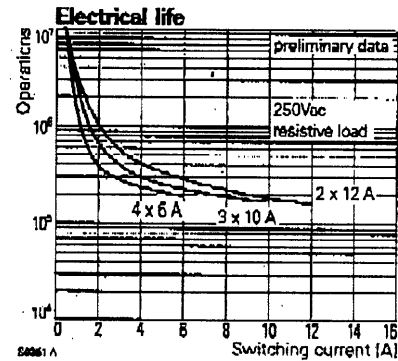


Technical data of approved types on request

Contact data	PT2	PT3	PT5
Configuration	2 C/O	3 C/O	4 C/O
Type of contact	single contacts		
Rated current	12 A	10 A	6 A
Rated voltage / max. breaking voltage	250 Vac	250 Vac	250 Vac
Maximum switching voltage	440 Vac	440 Vac	250 Vac
Rated breaking capacity	3000 VA	2500 VA	1500 VA
Make current	24 A	20 A	12 A
Contact material	AgNi 90/10, AgNi 90/10 gold plated		

Contact life		Operations	Standard
Type	Load		
PT570	6 A, 250 Vac, on the C/O contact	1x10 <sup>6</sup>	VDE 0435

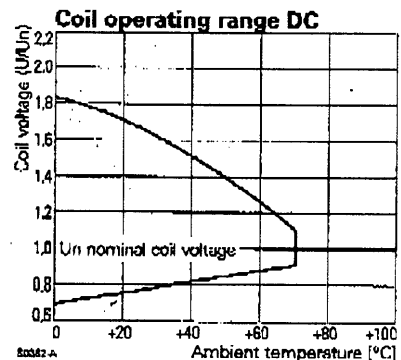
Coil data		
Nominal voltage	DC coil	6...220 Vdc
	AC coil	6...230 Vac
Nominal coil power	DC coil	typ. 0.75 W
	AC coil	typ. 1.0 VA
Operate category		2 / b
Operating range for AC coil 60Hz at 70°C		90...110% U <sub>nom</sub>



### Coil versions, DC-coil

Coil code	Nominal voltage Vdc	Pull-in voltage Vdc	Release voltage Vdc	Coil resistance Ω	Coil current mA
006	6	4.5	0.6	48 ± 10%	125.0
012	12	9.0	1.2	192 ± 10%	62.5
<b>024</b>	<b>24</b>	<b>18.0</b>	<b>2.4</b>	<b>777 ± 10%</b>	<b>31.3</b>
048	48	36.0	4.8	3072 ± 10%	15.6
080	60	45.0	6.0	4845 ± 12%	12.5
110	110	82.5	11.0	16133 ± 15%	6.8
220	220	165.0	22.0	64533 ± 15%	3.4

All figures are given for coil without preenergization, at ambient temperature +20°C



# Miniature Relay PT

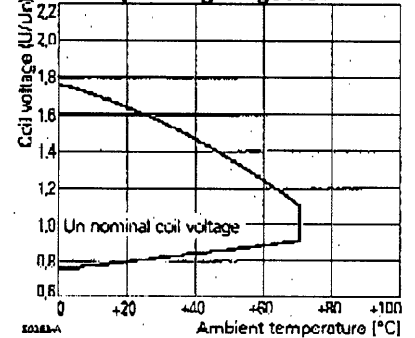
2 pole 12 A, 3 pole 10 A or 4 pole 6 A  
DC- or AC-coil

### Coil versions, AC-coil

Coil code	Nominal voltage Vac	Pull-in voltage Vac	Release voltage Vac	Coil resistance $\Omega$	Coil current mA
506	6	4.8	1.8	11±10%	166.5
512	12	9.6	3.6	48±10%	83.3
<b>524</b>	<b>24</b>	<b>19.2</b>	<b>7.2</b>	<b>192±10%</b>	<b>41.6</b>
548	48	38.4	14.4	777±10%	21.3
560	60	48.0	18.0	1306±10%	16.7
615	115	92.0	34.5	4845±12%	8.8
<b>730</b>	<b>230 *)</b>	<b>184.0</b>	<b>69.0</b>	<b>19485±15%</b>	<b>4.3</b>

\*) for 50 Hz only. All figures are given for coil without preenergization, at ambient temperature +20°C

### Coil operating range AC

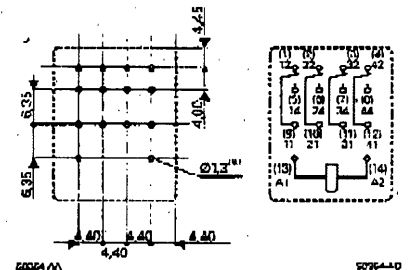


Insulation	PT2	PT3	PT5
Dielectric strength coil-contacts	2500 V <sub>rms</sub>	2500 V <sub>rms</sub>	2500 V <sub>rms</sub>
open contact circuit			
in unenergized position typ.	1500 V <sub>rms</sub>	1500 V <sub>rms</sub>	1500 V <sub>rms</sub>
adjacent contacts	2500 V <sub>rms</sub>	2500 V <sub>rms</sub>	2000 V <sub>rms</sub>
Clearance / creepage	3 / 4 mm	2,6 / 4 mm	1,8 / 3 mm
Insulation to IEC 664/VDE 0110 (1/89)			
Voltage rating		250	
Pollution degree		3	
Overtoltage category		III	
Insulation to VDE 0110b (2/79)			
Insulation category / reference voltage	C / 250	C / 250	B / 250
Tracking resistance		CTI 175	

### PCB layout / terminal assignment

View on solder pins  
Dimensions in mm

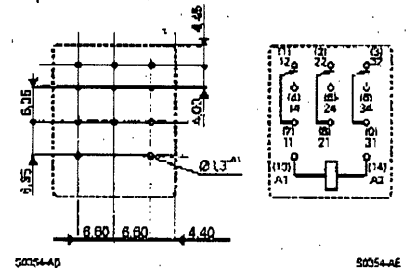
#### 4-pole



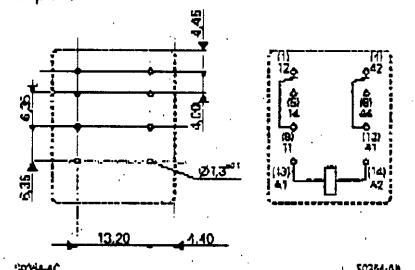
### Other data

Flammability according UL 94	V-0	
Ambient temperature	DC-coil	-40...+70 °C
	AC-coil	-40...+70 °C
Mechanical life	DC-coil	>30x10 <sup>6</sup> ops.
	AC-coil	>20x10 <sup>6</sup> ops.
Max. switching rate at rated- / minimum load	6 min <sup>-1</sup> / 800 min <sup>-1</sup>	
Operate- / release time	15 / 10 ms	
Bounce time	5 ms	
Vibration resistance N/O contact/N/C contact	>7 / 4 g	
Shock resistance (function) N/O contact/N/C contact	>20 / 5 g	
Protection category	IP 50	
Relay weight	30 g	
Packaging unit	10 pcs.	
Accessories	see accessories PT, page 15	

#### 3-pole



#### 2-pole



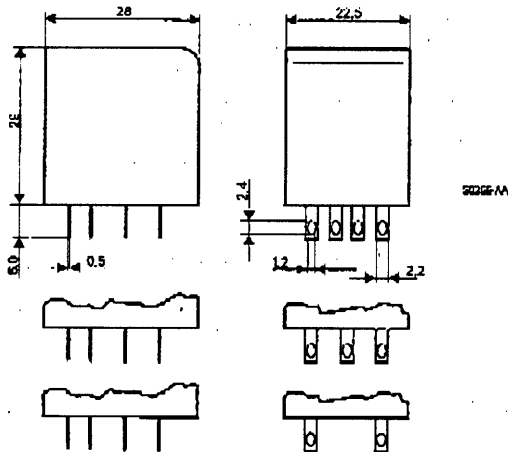
# Miniature Relay PT

2 pole 12 A, 3 pole 10 A or 4 pole 6 A  
DC or AC-coil

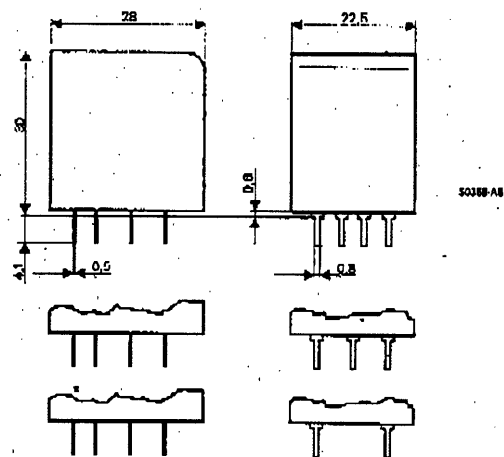
## Dimensions

Dimensions in mm

Solder- and plug-in terminals (standard version)



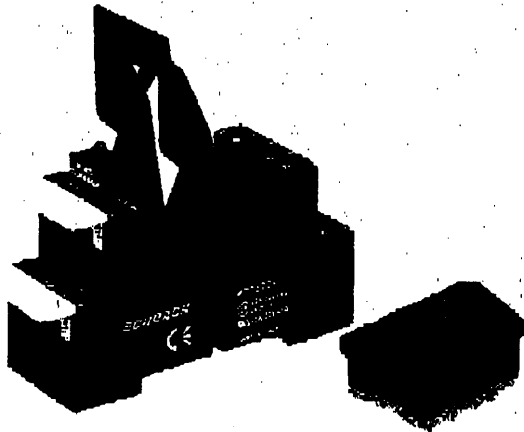
PCB version



## Ordering key

Type	<b>P</b>	<b>T</b>				
Contact configuration						
<b>2</b> 2 C/O contacts						
<b>3</b> 3 C/O contacts						
<b>5</b> 4 C/O contacts						
Contact material						
<b>7</b> AgNi 90/10, with test button						
<b>8</b> AgNi 90/10, gold plated, with test button						
Version						
<b>0</b> standard, AMP 2,8						
<b>1</b> PCB terminals						
Coil						
Coil code: please refer to coil versions table, preferred types in bold print						
Other types on request						

## Accessories Miniature Relay PT



FD100-A

- New retainer clip with ejection function
- Easy replacement of relays on a densely packed DIN rail
- High quality rising clamp terminals
- Captive combination terminal screws
- No reduction of protection class or creepage/clearance with plastic retainer
- Simple plug-in Indicator- and function modules
- White snap-on tags

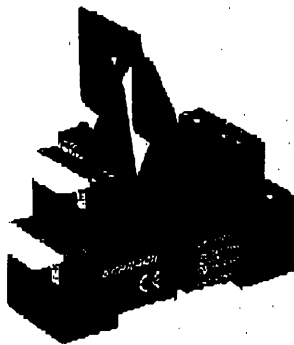
### Accessories for sockets:

- Rejactor
- Function- and protection modules
- Marking tags

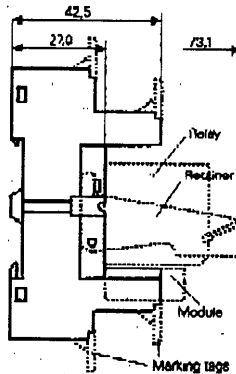
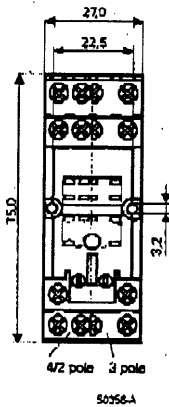
**PT 78 702** DIN-rail socket with screw type terminals, 2 pole

**PT 78 703** DIN-rail socket with screw type terminals, 3 pole

**PT 78 704** DIN-rail socket with screw type terminals, 4 pole



FD192-A



Dimensions in mm



### Technical data

Rated current	1 x 6 A, 3 x 10 A, 2 x 12 A
Rated voltage	300 Vac
Dielectric strength coil/cont.	>4000 V <sub>off</sub>
Insulation category (VDE 0110b)	C / 250 Vac
Ambient temperature	-45...+70 °C <sup>1)</sup>
Protection category	IP 20
Protection against accidental contact meets	VBG 4
Wire cross section	2 x 2.5 mm <sup>2</sup>
with bootlace crimp	2 x 1.5 mm <sup>2</sup>
Terminal torque	0.5 Nm
max.	0.8 Nm
Packaging unit	10 pcs.
<sup>1)</sup> at rated current to +60 °C, up to +70 °C at 70% of rated current	

Plastic retainer **PT 16 016**  
Metal-retaining clip **PT 28 800**

Marking tag **PT 16 040**

## LED and Protection Modules

for sockets PT 78 702, PT 78 703, PT 78 704



FD121-A

### Function- and Protection Modules

Easy Insertion of module into the socket  
Wiring in parallel to the coil

Ordering code	Type
<b>RPM T0 0A0</b>	Protection diode 1N4007 <sup>1)</sup>
<b>RPM U0 548</b>	RC-network 24...48 Vac
<b>RPM U0 730</b>	RC-network 110...230 Vac
<b>RPM L0 024</b>	LED 12...24 Vdc w.prot.diode <sup>1)</sup>
<b>RPM L0 524</b>	LED 12...48 Vdc / Vac
<b>RPM L0 110</b>	LED 60...110 Vdc w.prot.diode <sup>1)</sup>
<b>RPM L0 730</b>	LED 110...230 Vac

<sup>1)</sup> Standard polarity: A1:+, A2:-