

#### **Accessories Miniature Relay PT**

- Easy replacement of relays on a densely packed DIN rail
- No reduction of protection class or creepage/clearance with plastic retainer
- Plug-in indicator- and protection modules
- Retainer clip with ejection function for relays of 29 mm height

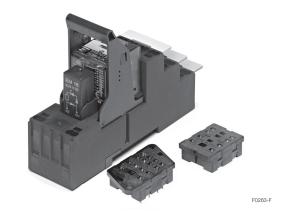
### Premium socket with screwless terminals for DIN rail mounting

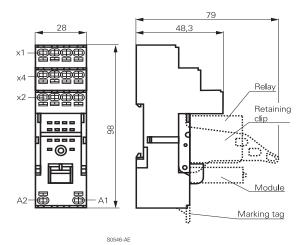
**PT 78 74P** Premium socket, logical terminal arrangement, 4 pole **PT 78 72P** Premium socket, logical terminal arrangement, 2 pole

- PT 2/4 pole 12/6 A
- **■** Screwless Clamps
- Mounting of solid wires without tool
- **■** Double Clamps per terminal
- **■** Jumper links for interconnection
- Open coil circuit for active modules
- **■** Logical terminal arrangement





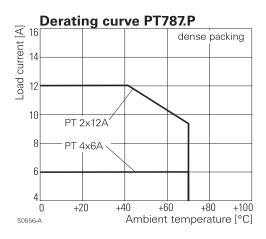




#### **Approvals**

VDE Cert. No. 40009108, cULus E135149

Technical data	2-pole	4-pole
Rated voltage/Max. switching voltage AC	240/400VAC	240 VAC
Rated current	12 A	6 A
Limiting continuous current	see derat	ting curve
Dielectric strength		
coil contact circuit	2500 V <sub>rms</sub>	2500 V <sub>rms</sub>
open contact circuit	1200 V <sub>rms</sub>	1200 V <sub>rms</sub>
adjacent contact circuits	2500 V <sub>rms</sub>	2000 V <sub>rms</sub>
Clearance / creepage		
coil contact circuit	≥ 4/4 mm	≥ 4/4 mm
adjacent contact circuits	≥ 3.5/9.5 mm	≥ 1.8/3.5 mm
Material group of insulation parts	II	la
Insulation to IEC 60664-1		
Type of insulation coil-contact circuit	ba	sic
open contact circuit	funct	tional
adjacent contact circ	uits ba	sic
Rated insulation voltage	25	0 V
Pollution degree	2	1)
Rated voltage system	230 /	400 V
Overvoltage category		II



1) with inserted relay pollution degree 1 in region of contact pins / socket inlets.

1x1.5mm<sup>2</sup>



#### **Accessories Miniature Relay PT** (Continued)

# Technical data (continued) Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at www.te.com/customersupport/rohssupportcenter

Ambient temperature range	
for mounting/handling	-25+70°C
in operation	-40+70°C
Terminals	screwless
Wire strip length	12 mm
Wire cross section	
solid wire	1x0.75/1/1.5mm <sup>2</sup>
	2x0.75/1mm <sup>2</sup>
with stand. isolation (no oversize isolation) stranded wire	2x1.5mm <sup>2</sup>
without hootlace crimp	$1 \times 0.75 / 1 / 1.5 \text{mm}^2$

without bootlace crimp

without bootlace crimp with stand. isolation

with bootlace crimp

at x0.75/1/1.5mm²

2x0.75/1mm²

2x0.75/1mm²

with bootlace crimp without isolation or min 18 mm long

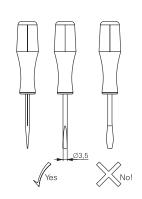
For stranded wires with braids 0.05 mm or smaller the use of bootlace crimps is recommended. When using stranded wires without bootlace crimp the clamp must be opened during insertion.

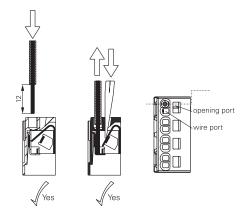
Insertion cycles	A (10)	
Max. Insertion Force total	100 N	
Mounting distance	≥ 0, dense packing	
Weight	44 g	60 g
Packaging unit	10 pcs	

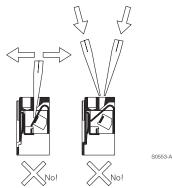
#### 

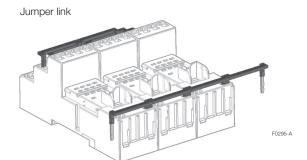
Accessories for PT 78 72P, PT 78 74P			
Type		Part Number	
PT 17 021	Plastic retaining clip,		
	relay height 29 mm	2-1415526-1	
PT 28 800	Metal retaining clip PT,		
	relay height 29 mm	5-1419111-9	
PT 17 040	Marking tag	6-1415037-1	
PT 17 0P1	Jumper link, max load 12 A	1860214-1	

#### How to use, Precautions









When connecting more than 2 poles with staggered jumper bars the lower bars need to be stripped and shortened to an appropriate length to enable correct fitting.

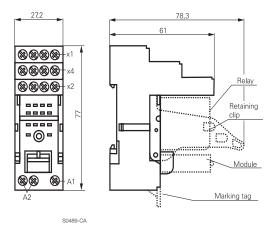


### DIN-rail socket with screw type terminals PT78722/PT78742

- Socket with logical arrangement of control/load terminals
- **■** High quality rising clamp terminals
- **■** Captive combination terminal screws
- Second A2 for easier looping
- **■** Jumper bars for interconnection







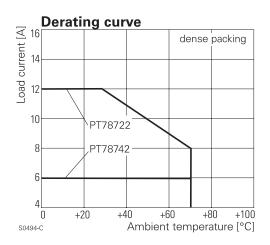
#### **Approvals**

VDE Cert. No. 40009108, cULus E135149

Technical data	2-pole	4-pole
Rated voltage/Max. switching voltage AC	240/400VAC	240 VAC
Rated current	12 A	6 A
Limiting continuous current	see derat	ing curve
Dielectric strength		
coil contact circuit	2500 V <sub>rms</sub>	2500 V <sub>rms</sub>
open contact circuit	1200 V <sub>rms</sub>	1200 V <sub>rms</sub>
adjacent contact circuits	2500 V <sub>rms</sub>	2000 V <sub>rms</sub>
Clearance / creepage		
coil contact circuit	≥ 4/4 mm	≥ 4/4 mm
adjacent contact circuits	≥ 3.5/9.5 mm	≥ 1.8/3.5 mm
Material group of insulation parts	II	la
Insulation to IEC 60664-1		
Type of insulation coil-contact circuit	ba	sic
open contact circuit	funct	tional
adjacent contact circ	uits ba	sic
Rated insulation voltage	25	0 V
Pollution degree	2	1)
Rated voltage system	230 /	400 V
Overvoltage category	I	II
Material compliance: ELL BoHS/ELV China	BOHS REACH	Halogen conten

Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at www.te.com/customersupport/rohssupportcenter

Ambient temperature range	-40+70	)°C
Terminals	screw	
Terminals screw torque acc. IEC 61984	0.5 Nm	
max.	0.7 Nm	
Wire cross section		
single wire	2 x 2.5 mm <sup>2</sup>	
fine wire	2 x 2.5 mm <sup>2</sup>	
with bootlace crimp (DIN 46228/1)	2 x 1.5 mm <sup>2</sup>	
Insertion cycles	A (10)	
Max. Insertion Force total	100 N	
Mounting distance	≥ 0, dense packing	
Weight	44 g	60 g
Packaging unit	10 pcs	



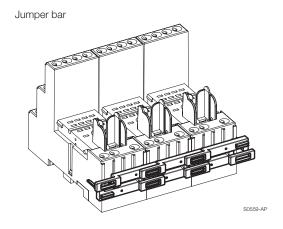
<sup>1)</sup> with inserted relay pollution degree 1 in region of contact pin/socket inlets



### DIN-rail socket with screw type terminals, In/Out arrangement

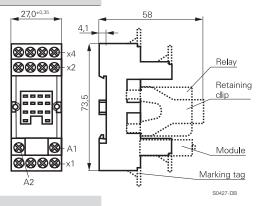
Type		Part Number
PT 78 722	DIN-rail socket with screw type terminals,	
	In/Out arrangement 2 pole	1415526-1
PT 78 742	DIN-rail socket with screw type terminals,	
	In/Out arrangement 4 pole	1-1415526-1

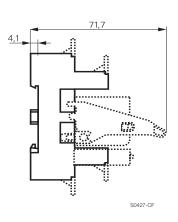
Accessories for PT 78 722, PT 78 742		
Type		Part Number
PT 17 021	Plastic retaining clip,	
	relay height 29 mm	2-1415526-1
PT 28 800	Metal retaining clip PT,	
	relay height 29 mm	5-1419111-9
PT 17 040	Marking tag	6-1415037-1
PT 17 0R6	Jumper bar, max load 12A	
	for connection of up to 6 PT sockets	1860517-5



### PT DIN-rail socket with screw type terminals PT78720/730/740/741







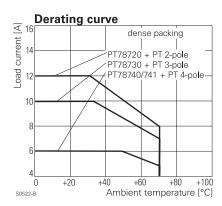
#### **Approvals**

VDE Cert. No. 40009108, cULus E135149

lechnical data	2-pole	3-pole	4-pole
Rated voltage/Max. switching volt	tage AC	240/400VAC	
Rated current	12 A	10 A	6 A
Limiting continuous current	se	e derating cur	ve
Dielectric strength			
coil-contact circuit	2500 V <sub>rms</sub>	2500 V <sub>rms</sub>	2500 V <sub>rms</sub>
open contact circuit	1200 V <sub>rms</sub>	1200 V <sub>rms</sub>	1200 V <sub>rms</sub>
adjacent contact circuits	2500 V <sub>rms</sub>	2500 V <sub>rms</sub>	2000 V <sub>rms</sub>
Clearance / creepage			
coil-contact circuit	≥ 4/4 mm	≥ 4/4 mm	≥ 4/4 mm
adjacent contact circuits	≥3.5/9.5mm	≥2.6/3.5mm	≥1.8/3.5mm
Material group of insulation parts		IIIa	
Insulation to IEC 60664-1			
Type of insulation			
coil-contact circuit	basic	basic	basic
open contact circuit	functional	functional	functional
adjacent contact circuits	basic	basic	functional
Rated insulation voltage		250 V	
Pollution degree		2	
Rated voltage system		230 / 400 V	
Overvoltage category		III	
		0 0 0 1 1 1 1	

Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at www.te.com/customersupport/rohssupportcenter

Ambient temperature range	-40+70°C





Technical data (continued) 2	2-pole	e 3-pole 4	1-pole
Terminals		screw	
Terminal screw torque acc. IEC 61984	1	0.5 Nm	
max.		0.7 Nm	
Wire cross section			
single wire		2 x 2.5 mm <sup>2</sup>	
fine wire	2 x 2.5 mm <sup>2</sup>		
with bootlace crimp (DIN 46228/1)	1) 2 x 1.5 mm <sup>2</sup>		
Insertion cycles	A (10)		
Max. Insertion Force total	100 N		
Mounting distance	≥ 0, dense packing		
Weight	41 g	48 g	55 g
Packaging unit	10 pcs		

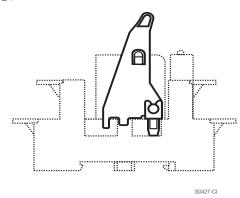
DIN-rail socket with screw type terminals		
Туре		Part Number
PT 78 720	DIN-rail socket with screw type terminal	S,
	2 pole	6-1415034-1
PT 78 730	DIN-rail socket with screw type terminals,	
	3 pole	9-1415071-1
PT 78 740	DIN-rail socket with screw type terminals,	
	4 pole	4-1415033-1
PT 78 741	DIN-rail socket with screw type terminals,	
	4 pole, package with	
	protection diode module A1+, A2-	5-1415034-1

Accessories for PT 78 720, PT 78 730, PT 78 740, PT 78 741			
Type		Part Number	
PT 17 016	Plastic retaining clip PT,		
	relay height 29 mm	5-1415037-1	
PT 17 024	Plastic retaining clip PT with ejecting func.,		
	relay height 29 mm	1816124-1	
PT 28 800	Metal retaining clip PT,		
	relay height 29 mm	5-1419111-9	
PT 17 040	Marking tag	6-1415037-1	
PT 17 0R6	Jumper bar, max load 12A		
	for connection of up to 6 PT sockets	1860517-5	

S0427-CH

PT17 024

PT17 016



#### Marking tags

- White marking area 28 x 6 mm
- Snaps on socket in up to 4 positions



### LED- and Protection Modules for PT 78 72P, PT 78 74P, PT 78 722, PT 78 742, PT 78 720, PT 78 730, PT 78 740

Easy insertion of module into the socket

Wiring in parallel to the coil

vviilig in paraii		JII	
Туре			Part Number
PTM T0 0A0	EM09	Protection diode	9-1415036-1
		(standard, A1+,A2-)	
PTM T0 0L0	EM01	Protection diode (A1-, A2+)	1415037-1
PTM U0 524	EM02	RC-network 660 VAC	1-1415037-1
PTM U0 730	EM03	RC-network 110230 VAC	2-1415037-1
PTM V0 524	EM04	Varistor 24 VAC	3-1415037-1
PTM V0 615	EM13	Varistor 115 VAC	6-1415365-1
PTM V0 730	EM05	Varistor 230 VAC	4-1415037-1
PTM D0 730	EM31	Residual current bypass	1415037-2
		RC 110230 VAC	
PTM R0 730	EM29	Residual current bypass	1-1415539-2
		resistor 110230 VAC	





LED			
PTM L0 024	EM18	red LED 624 VDC w.	5-1415036-1
		prot. diode (std, A1+, A2-)	
PTM G0 024	EM12	green LED 624 VDC w.	2-1415036-1
		prot. diode (std, A1+, A2-)	
PTM L1 024	EM08	red LED 624 VDC w.	8-1415036-1
		prot. diode (A1-, A2+)	
PTM L0 060	EM16	red LED 2460 VDC w.	5-1415539-3
		prot. diode (std, A1+, A2-)	
PTM G0 060	EM25	green LED 2460 VDC w.	7-1415539-7
		prot. diode (std, A1+, A2-)	
PTM L0 110	EM19	red LED 60110 VDC w.	2-1415392-1
		prot. diode (A1+, A2-)	
PTM G0 110	EM26	green LED 60110 VDC w.	1-1415539-7
		prot. diode (A1+, A2-)	
PTM L0 220	EM27	red LED 110220 VDC w.	1-1415539-4
		prot. diode (A1+, A2-)	
PTM G0 220	EM28	green LED 110220 VDC w.	1-1415539-6
		prot. diode (A1+, A2-)	
PTM L0 524	EM07	red LED 624 VDC/VAC	6-1415036-1
PTM G0 524	EM11	green LED 624 VDC/VAC	3-1415036-1
PTM L0 560	EM14	red LED 2460 VDC/VAC	1-1415539-3
PTM G0 560	EM30	green LED 2460 VDC/VAC	1-1415539-5
PTM L0 730	EM06	red LED 110230 VAC	7-1415036-1
PTM G0 730	EM10	green LED 110230 VAC	4-1415036-1

#### **Relay Packages**

Complete packages consisting of a relay mounted on a socket: see Relay Package PT



#### PT sockets for PCB mount and with solder terminals

PT 78 600, socket with solder terminals, 4-pole



PT 78 602, PT 78 603, PT 78604,

socket with PCB terminals, 2-, 3- and 4-pole



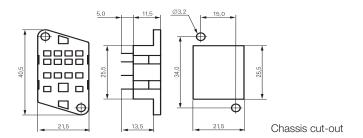
PT 78 601, socket with solder terminals, 4-pole



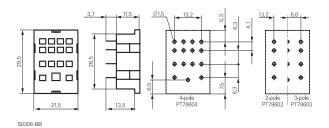
Technical data	2-pole	3-pole	4-pole
Rated voltage/max. switching volt	tage AC	240/400VAC	
Rated current	12 A	10 A	6 A
Dielectric strength			
coil-contact circuit	2500 V <sub>rms</sub>	2500 V <sub>rms</sub>	2500 V <sub>rms</sub>
open contact circuit	1200 V <sub>rms</sub>	1200 V <sub>rms</sub>	1200 V <sub>rms</sub>
adjacent contact circuits	2500 V <sub>rms</sub>	2500 V <sub>rms</sub>	2000 V <sub>rms</sub>
Clearance / creepage			
coil-contact circuit	≥ 4/4 mm	≥ 4/4 mm	≥ 4/4 mm
adjacent contact circuits	≥3.5/9.5mm	≥2.6/3.5mm	≥1.8/3.5mm
Material group of insulation parts		IIIa	
Insulation to IEC 60664-1			
Type of insulation			
coil-contact circuit	basic	basic	basic
open contact circuit	functional	functional	functional
adjacent contact circuits	basic	basic	functional
Rated insulation voltage		250 V	
Pollution degree		2	
Rated voltage system		230 / 400 V	
Overvoltage category		III	
Material compliance: FLLRoHS/FLV China RoHS, REACH, Halogen content			

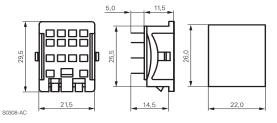
Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at www.te.com/customersupport/rohssupportcenter

Ambient temperature range	-40+80°C		
Terminals	pcb, solder terminals		
Insertion cycles	A (10)		
Max. Insertion Force total	100 N		
Mounting distance	≥ 0, dense packing		
Resistance to soldering heat	270°C / 10 s		
Weight	6g 7g 7g		
Packaging unit	25 pcs		



S0308-AA





Chassis cut-out

PT sockets	S	
Type		Part Number
PT 78 600	Socket with solder terminals, 4 pole	4-1415043-1
PT 78 602	Socket with PCB terminals, 2 pole	5-1415043-1
PT 78 603	Socket with PCB terminals, 3 pole	1393162-5
PT 78 604	Socket with PCB terminals, 4 pole	3-1415043-1
PT 78 601	Socket with solder terminals, 4 pole	6-1415043-1

## Accessories for PT 78 600, PT 78 601, PT 78 602, PT 78 603, PT 78 604

Type		Part Number
PT 28 802	Metal retaining clip PT, relay height 29 mm	1393162-1

### **Mouser Electronics**

**Authorized Distributor** 

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

### TE Connectivity:

<u>2-1415036-1</u> <u>9-1415036-1</u> <u>1415037-1</u> <u>3-1415043-1</u> <u>3-1415036-1</u> <u>PT78730</u> <u>PT17040</u> <u>PT78742</u> <u>2-1415037-1</u> <u>2-1415392-1</u> PT17021 PT78604 PT78740 PT17016 PT78600 PT78720 PT78741 PTML0024