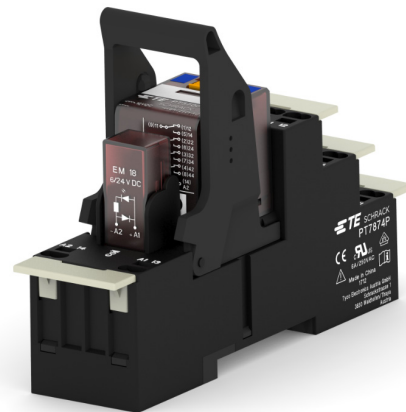


**Accessories Miniature Relay PT**

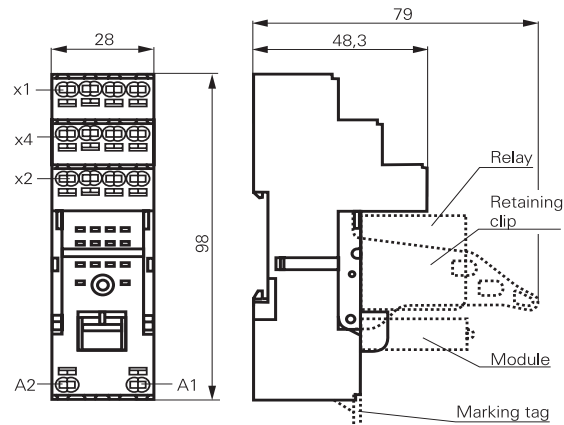
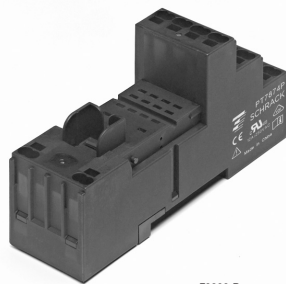
- Easy replacement of relays on a densely packed DIN rail
- No reduction of protection class or creepage/clearance with plastic retainer
- Plug-in indicator- and protection modules
- Retainer clip with ejection function for relays of 29 mm height



**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

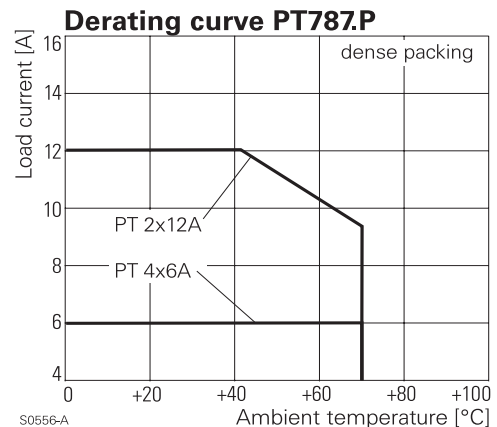
- PT 2/4 pole 12/6 A
- Screwless Clamps
- Mounting of solid wires without tool
- Double Clamps per terminal
- Jumper links for interconnection
- Open coil circuit for active modules
- Logical terminal arrangement



S0546-AE

**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 derating 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      | IIIa                  |                       |
| Flammability class UL 94                | V-0                   |                       |
| Insulation to IEC 60664-1               |                       |                       |
| Type of insulation coil-contact circuit | basic                 |                       |
| open contact circuit                    | functional            |                       |
| adjacent contact circuits               | basic                 |                       |
| Rated insulation voltage                | 250 V                 |                       |
| Pollution degree                        | 2 <sup>1)</sup>       |                       |
| Rated voltage system                    | 230 / 400 V           |                       |
| Overvoltage category                    | III                   |                       |



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

**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](http://www.te.com/customersupport/rohssupportcenter)

|   | 2-pole                      | 4-pole                  |
|---|-----------------------------|-------------------------|
| 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)           | 2x1.5mm <sup>2</sup>        |                         |
| stranded wire without bootlace crimp                    | 1x0.75/1/1.5mm <sup>2</sup> | 2x0.75/1mm <sup>2</sup> |
| without bootlace crimp with stand. isolation            | 2x1.5mm <sup>2</sup>        |                         |
| with bootlace crimp                                     | 1x0.75/1mm <sup>2</sup>     | 2x0.75mm <sup>2</sup>   |
| with bootlace crimp without isolation or min 18 mm long | 1x1.5mm <sup>2</sup>        |                         |

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             |      |

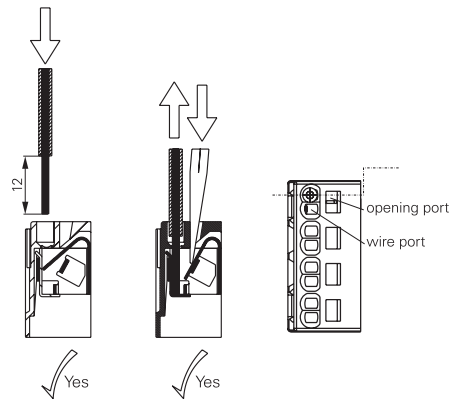
**Socket with screwless terminals for DIN rail mounting**

| Type   | Part Number |
|--|-------------|
| <b>PT 7872P</b> Premium socket, logical terminal arrangement<br>Socket with screwless terminals 2 pole | 1860100-1   |
| <b>PT 7874P</b> Premium socket, logical terminal arrangement<br>Socket with screwless terminals 4 pole | 1860000-1   |

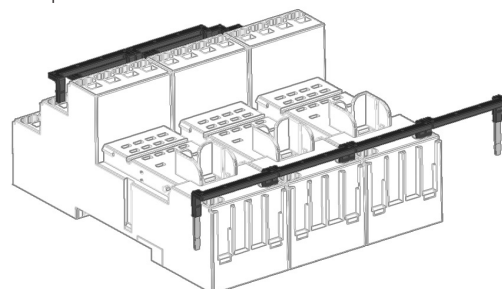
**Accessories for PT 78 72P, PT 78 74P**

| Type   | Part Number |
|--|-------------|
| <b>PT 17 021</b> Plastic retaining clip, relay height 29 mm  | 2-1415526-1 |
| <b>PT 28 800</b> Metal retaining clip PT, relay height 29 mm | 5-1419111-9 |
| <b>PT 17 040</b> Marking tag                                 | 6-1415037-1 |
| <b>PT 17 0P1</b> Jumper link, max load 12 A                  | 1860214-1   |

**How to use, Precautions**



**Jumper link**



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.

**Accessories Miniature Relay PT (Continued)**

**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



F0264-C



S0489-CA

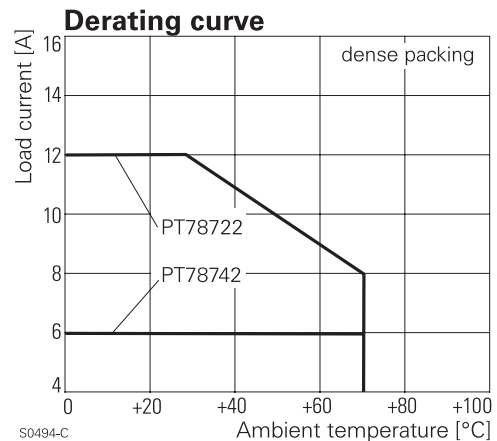
**Approvals**

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 derating 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      | IIIa                  |                       |
| Flammability class UL 94                | V-0                   |                       |
| Insulation to IEC 60664-1               |                       |                       |
| Type of insulation coil-contact circuit | basic                 |                       |
| open contact circuit                    | functional            |                       |
| adjacent contact circuits               | basic                 |                       |
| Rated insulation voltage                | 250 V                 |                       |
| Pollution degree                        | 2 <sup>1)</sup>       |                       |
| Rated voltage system                    | 230 / 400 V           |                       |
| Overvoltage category                    | III                   |                       |

Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at [www.te.com/customersupport/rohssupportcenter](http://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                  |
| Terminal Screw size                   | M3                      |
| Wire strip length                     | 8 mm                    |
| 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          |



S0494-C

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

**Accessories Miniature Relay PT (Continued)**

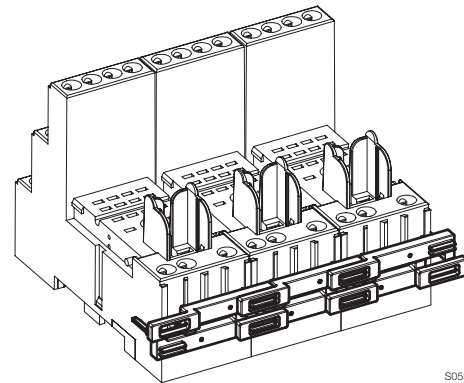
**DIN-rail socket with screw type terminals, In/Out arrangement**

| Type  | Part Number |
|---|-------------|
| <b>PT 78 722</b> DIN-rail socket with screw type terminals, In/Out arrangement 2 pole | 1415526-1   |
| <b>PT 78 742</b> 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 |
|--|-------------|
| <b>PT 17 021</b> Plastic retaining clip, relay height 29 mm                    | 2-1415526-1 |
| <b>PT 28 800</b> Metal retaining clip PT, relay height 29 mm                   | 5-1419111-9 |
| <b>PT 17 040</b> Marking tag   | 6-1415037-1 |
| <b>PT 17 0R6</b> Jumper bar, max load 12A for connection of up to 6 PT sockets | 1860517-5   |

Jumper bar



S0559-AP

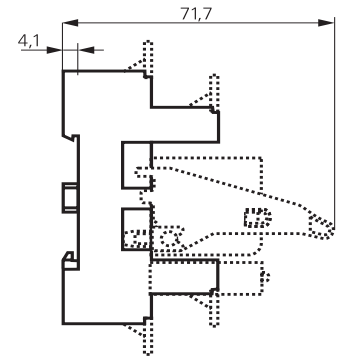
**PT DIN-rail socket with screw type terminals PT78720/730/740/741**



F0234-C



S0427-DB



S0427-CF

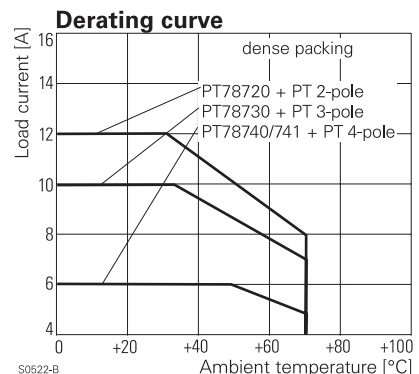
**Approvals**

VDE Cert. No. 40009108, cULus E135149

| Technical data                          | 2-pole                | 3-pole                | 4-pole                |
|---|-----------------------|-----------------------|-----------------------|
| Rated voltage/Max. switching voltage AC | 240/400VAC            |                       |                       |
| Rated current                           | 12 A                  | 10 A                  | 6 A                   |
| Limiting continuous current             | see derating curve    |                       |                       |
| 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                  |                       |                       |
| Flammability class UL 94                | V-0                   |                       |                       |
| 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: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at [www.te.com/customer-support/rohssupportcenter](http://www.te.com/customer-support/rohssupportcenter)

Ambient temperature range -40...+70°C



S0522-B

**Accessories Miniature Relay PT (Continued)**

| Technical data (continued)           | 2-pole | 3-pole                  | 4-pole |
|--------------------------------------|--------|-------------------------|--------|
| Terminals                            |        | screw                   |        |
| Terminal screw torque acc. IEC 61984 |        | 0.5 Nm                  |        |
| max.                                 |        | 0.7 Nm                  |        |
| Terminal Screw size                  |        | M3                      |        |
| Wire strip length                    |        | 8 mm                    |        |
| 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                               | 41 g   | 48 g                    | 55 g   |
| Packaging unit                       |        | 10 pcs                  |        |

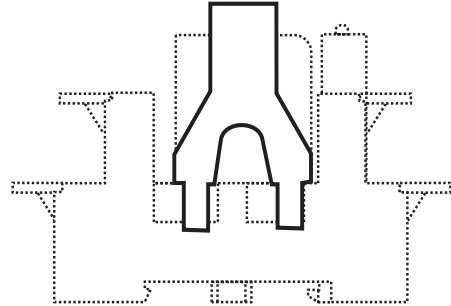
**DIN-rail socket with screw type terminals**

| Type  | Part Number |
|---|-------------|
| <b>PT 78 720</b> DIN-rail socket with screw type terminals, 2 pole  | 6-1415034-1 |
| <b>PT 78 730</b> DIN-rail socket with screw type terminals, 3 pole  | 9-1415071-1 |
| <b>PT 78 740</b> DIN-rail socket with screw type terminals, 4 pole  | 4-1415033-1 |
| <b>PT 78 741</b> 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**

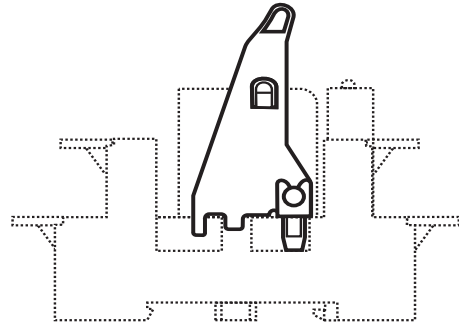
| Type   | Part Number |
|--|-------------|
| <b>PT 17 016</b> Plastic retaining clip PT, relay height 29 mm                     | 5-1415037-1 |
| <b>PT 17 024</b> Plastic retaining clip PT with ejecting func., relay height 29 mm | 1816124-1   |
| <b>PT 28 800</b> Metal retaining clip PT, relay height 29 mm                       | 5-1419111-9 |
| <b>PT 17 040</b> Marking tag   | 6-1415037-1 |
| <b>PT 17 0R6</b> Jumper bar, max load 12A  |             |

PT17 016



S0427-CH

PT17 024



S0427-CI

**Marking tags**

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

**Accessories Miniature Relay PT (Continued)**

**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

| Type              |      |  | Part Number |
|-------------------|------|--|-------------|
| <b>PTM TO 0A0</b> | EM09 | Protection diode (standard, A1+,A2-)           | 9-1415036-1 |
| <b>PTM TO 0L0</b> | EM01 | Protection diode (A1-, A2+)                    | 1415037-1   |
| <b>PTM UO 524</b> | EM02 | RC-network 6...60 VAC                          | 1-1415037-1 |
| <b>PTM UO 730</b> | EM03 | RC-network 110...230 VAC                       | 2-1415037-1 |
| <b>PTM VO 524</b> | EM04 | Varistor 24 VAC                                | 3-1415037-1 |
| <b>PTM VO 615</b> | EM13 | Varistor 115 VAC                               | 6-1415365-1 |
| <b>PTM VO 730</b> | EM05 | Varistor 230 VAC                               | 4-1415037-1 |
| <b>PTM DO 730</b> | EM31 | Residual current bypass RC 110...230 VAC       | 1415037-2   |
| <b>PTM RO 730</b> | EM29 | Residual current bypass resistor 110...230 VAC | 1-1415539-2 |



**LED**

|                   |      |  |             |
|-------------------|------|--|-------------|
| <b>PTM LO 024</b> | EM18 | red LED 6...24 VDC w. prot. diode (std, A1+, A2-)    | 5-1415036-1 |
| <b>PTM GO 024</b> | EM12 | green LED 6...24 VDC w. prot. diode (std, A1+, A2-)  | 2-1415036-1 |
| <b>PTM L1 024</b> | EM08 | red LED 6...24 VDC w. prot. diode (A1-, A2+)         | 8-1415036-1 |
| <b>PTM LO 060</b> | EM16 | red LED 24...60 VDC w. prot. diode (std, A1+, A2-)   | 5-1415539-3 |
| <b>PTM GO 060</b> | EM25 | green LED 24...60 VDC w. prot. diode (std, A1+, A2-) | 7-1415539-7 |
| <b>PTM LO 110</b> | EM19 | red LED 60...110 VDC w. prot. diode (A1+, A2-)       | 2-1415392-1 |
| <b>PTM GO 110</b> | EM26 | green LED 60...110 VDC w. prot. diode (A1+, A2-)     | 1-1415539-7 |
| <b>PTM LO 220</b> | EM27 | red LED 110...220 VDC w. prot. diode (A1+, A2-)      | 1-1415539-4 |
| <b>PTM GO 220</b> | EM28 | green LED 110...220 VDC w. prot. diode (A1+, A2-)    | 1-1415539-6 |
| <b>PTM LO 524</b> | EM07 | red LED 6...24 VDC/VAC                               | 6-1415036-1 |
| <b>PTM GO 524</b> | EM11 | green LED 6...24 VDC/VAC                             | 3-1415036-1 |
| <b>PTM LO 560</b> | EM14 | red LED 24...60 VDC/VAC                              | 1-1415539-3 |
| <b>PTM GO 560</b> | EM30 | green LED 24...60 VDC/VAC                            | 1-1415539-5 |
| <b>PTM LO 730</b> | EM06 | red LED 110...230 VAC                                | 7-1415036-1 |
| <b>PTM GO 730</b> | EM10 | green LED 110...230 VAC                              | 4-1415036-1 |

**Relay Packages**

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

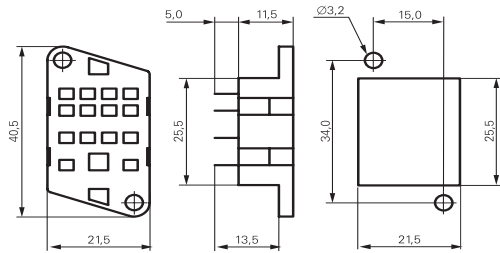
**Accessories Miniature Relay PT (Continued)**

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

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



F0132-A



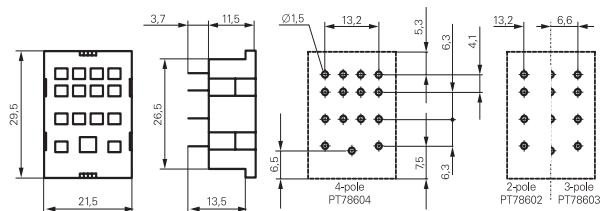
Chassis cut-out

S0308-AA

**PT 78 602, PT 78 603, PT 78604**, socket with PCB terminals, 2-, 3- and 4-pole



F0133-A

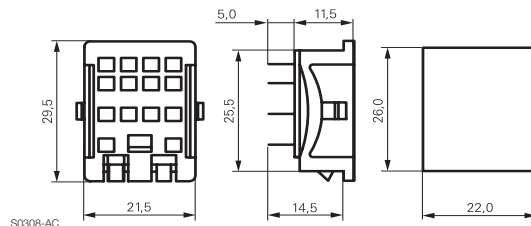


S0308-BB

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



F0134-A



S0308-AC

Chassis cut-out

| Technical data                          | 2-pole                | 3-pole                | 4-pole                |
|---|-----------------------|-----------------------|-----------------------|
| Rated voltage/max. switching voltage 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: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at [www.te.com/customersupport/rohssupportcenter](http://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                       | 6 g      7 g      7 g |
| Packaging unit               | 25 pcs                |

**PT sockets**

| Type  | Part Number |
|---|-------------|
| <b>PT 78 600</b> Socket with solder terminals, 4 pole | 4-1415043-1 |
| <b>PT 78 602</b> Socket with PCB terminals, 2 pole    | 5-1415043-1 |
| <b>PT 78 603</b> Socket with PCB terminals, 3 pole    | 1393162-5   |
| <b>PT 78 604</b> Socket with PCB terminals, 4 pole    | 3-1415043-1 |
| <b>PT 78 601</b> 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 |
|--|-------------|
| <b>PT 28 802</b> Metal retaining clip PT, relay height 29 mm | 1393162-1   |

Компания «Океан Электроники» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Поставка оригинальных импортных электронных компонентов напрямую с производств Америки, Европы и Азии, а так же с крупнейших складов мира;
- Широкая линейка поставок активных и пассивных импортных электронных компонентов (более 30 млн. наименований);
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Помощь Конструкторского Отдела и консультации квалифицированных инженеров;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Поставка электронных компонентов под контролем ВП;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- При необходимости вся продукция военного и аэрокосмического назначения проходит испытания и сертификацию в лаборатории (по согласованию с заказчиком);
- Поставка специализированных компонентов военного и аэрокосмического уровня качества (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Actel, Aeroflex, Peregrine, VPT, Syfer, Eurofarad, Texas Instruments, MS Kennedy, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Компания «Океан Электроники» является официальным дистрибьютором и эксклюзивным представителем в России одного из крупнейших производителей разъемов военного и аэрокосмического назначения «**JONHON**», а так же официальным дистрибьютором и эксклюзивным представителем в России производителя высокотехнологичных и надежных решений для передачи СВЧ сигналов «**FORSTAR**».



## JONHON

«**JONHON**» (основан в 1970 г.)

Разъемы специального, военного и аэрокосмического назначения:

(Применяются в военной, авиационной, аэрокосмической, морской, железнодорожной, горно- и нефтедобывающей отраслях промышленности)

«**FORSTAR**» (основан в 1998 г.)

ВЧ соединители, коаксиальные кабели,  
кабельные сборки и микроволновые компоненты:

(Применяются в телекоммуникациях гражданского и специального назначения, в средствах связи, РЛС, а так же военной, авиационной и аэрокосмической отраслях промышленности).



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