

PT 4X1-24DC-ST - Surge protection plug



2838322

<https://www.phoenixcontact.com/us/products/2838322>

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



Protective plug PT with protective circuit for 4 conductors of signal circuits grounded on one side.
Nominal voltage: 24 V DC

Your advantages

- Easy testing and documentation with CHECKMASTER 2 with pluggable protective modules
- Maximum ease of maintenance, thanks to the 2-piece design
- Easy selection for all possible demands in MCR applications with a complete product portfolio
- The signal is not influenced during maintenance work, thanks to the impedance-neutral insertion and removal of protective plugs

Commercial data

| | |
|--------------------------------------|---------------|
| Item number | 2838322 |
| Packing unit | 10 pc |
| Minimum order quantity | 1 pc |
| Sales key | CL21 |
| Product key | CL2111 |
| GTIN | 4017918182717 |
| Weight per piece (including packing) | 27 g |
| Weight per piece (excluding packing) | 24.574 g |
| Customs tariff number | 85363010 |
| Country of origin | DE |

PT 4X1-24DC-ST - Surge protection plug

2838322

<https://www.phoenixcontact.com/us/products/2838322>

Technical data

Product properties

| | |
|--|-------------------------------------|
| Product type | Surge protection for MCR technology |
| Product family | PLUGTRAB PT |
| IEC test classification | C1 |
| | C2 |
| | C3 |
| | D1 |
| VDE requirement class | C1 |
| | C2 |
| | C3 |
| | D1 |
| Type | Male |
| Surge protection fault message | none |
| Arrester can be tested with CHECKMASTER from software version: | From SW rev. 1.00 |

Insulation characteristics

| | |
|----------------------|-----|
| Overvoltage category | III |
| Pollution degree | 2 |

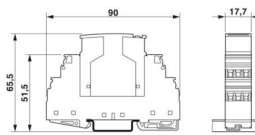
Electrical properties

| | |
|-----------------------|---------|
| Nominal voltage U_N | 24 V DC |
|-----------------------|---------|

Connection data

| | |
|----------------------------------|--|
| Connection method | Screw connection (in connection with the base element) |
| Screw thread | M3 |
| Tightening torque | 0.8 Nm |
| Conductor cross-section flexible | 0.2 mm ² ... 2.5 mm ² |
| Conductor cross-section rigid | 0.2 mm ² ... 4 mm ² |
| Conductor cross-section AWG | 24 ... 12 |

Dimensions

| | |
|-----------------------|--|
| Dimensional drawing |  |
| Width | 17.7 mm |
| Height | 45 mm |
| Depth | 52 mm |
| Horizontal pitch | 1 Div. |
| Complete module width | 17.7 mm |

PT 4X1-24DC-ST - Surge protection plug



2838322

<https://www.phoenixcontact.com/us/products/2838322>

| | |
|------------------------|---------|
| Complete module height | 90 mm |
| Complete module depth | 65.5 mm |

Material specifications

| | |
|--|----------------------------------|
| Color | black (RAL 9005) copper color |
| Flammability rating according to UL 94 | V-0 |
| Housing material | PA 6.6 |

Mechanical properties

Mechanical data

| | |
|-----------------|----|
| Open side panel | No |
|-----------------|----|

Protective circuit

| | |
|--|--|
| Direction of action | Line-Line & Line-Signal Ground/Shield & optional Signal Ground/Shield-Earth Ground |
| Nominal voltage U_N | 24 V DC |
| Maximum continuous operating voltage U_C | 28 V DC 20 V AC |
| Rated current | 300 mA (45 °C) |
| Operating effective current I_C at U_C | $\leq 5 \mu\text{A}$ |
| Protective conductor current I_{PE} | $\leq 1 \mu\text{A}$ (with PT 4X1+F-BE) $\leq 20 \mu\text{A}$ (Directly grounded) |
| Nominal discharge current I_n (8/20) μs (line-ground) | 10 kA |
| Pulse discharge current I_{imp} (10/350) μs | 2.5 kA (per path) |
| Total discharge current I_{Total} (8/20) μs | 20 kA |
| Max. discharge current I_{max} (8/20) μs maximum (line-earth) | 10 kA |
| Nominal pulse current I_{an} (10/1000) μs (line-earth) | 30 A |
| Output voltage limitation at 1 kV/ μs (line-earth) spike | $\leq 45 \text{ V}$ |
| Output voltage limitation at 1 kV/ μs (line-earth) static | $\leq 40 \text{ V}$ |
| Residual voltage at I_n (conductor-ground) | $\leq 40 \text{ V}$ |
| Voltage protection level U_p (line-earth) | $\leq 80 \text{ V}$ (C2 - 10 kV / 5 kA) |
| Response time t_A (line-earth) | $\leq 1 \text{ ns}$ |
| Input attenuation aE, asym. | 0.5 dB ($\leq 1 \text{ MHz}$) |
| Cut-off frequency f_g (3 dB), asym. (PE) in 50 Ω system | typ. 6 MHz |
| Capacity (Core-Earth) | 1.4 nF |
| Resistance per path | 4.7 Ω |
| Surge protection fault message | none |
| Max. required back-up fuse | 315 mA (T) |
| Impulse durability (line-earth) | C2 - 10 kV / 5 kA D1 - 2.5 kA |

Environmental and real-life conditions

Ambient conditions

PT 4X1-24DC-ST - Surge protection plug



2838322

<https://www.phoenixcontact.com/us/products/2838322>

| | |
|---------------------------------|------------------|
| Degree of protection | IP20 |
| Ambient temperature (operation) | -40 °C ... 85 °C |

Standards and regulations

| | |
|-----------------------|----|
| VDE requirement class | C1 |
| | C2 |
| | C3 |
| | D1 |

Standards Information technology specification

| | |
|-----------------------|-----------------|
| Standards/regulations | IEC 61643-21 |
| | DIN EN 61643-21 |
| | UL 497B |
| | IEC 61643-21 |
| | DIN EN 61643-21 |
| | UL 497B |

Air clearances and creepage distances

| | |
|--------------------------|--------------------------|
| Standards/regulations | VDE 0110-1 / IEC 60664-1 |
| Standards/specifications | IEC 61643-21 |
| Note | 2000 |

Mounting

| | |
|---------------|-----------------|
| Mounting type | on base element |
|---------------|-----------------|

PT 4X1-24DC-ST - Surge protection plug

2838322

<https://www.phoenixcontact.com/us/products/2838322>

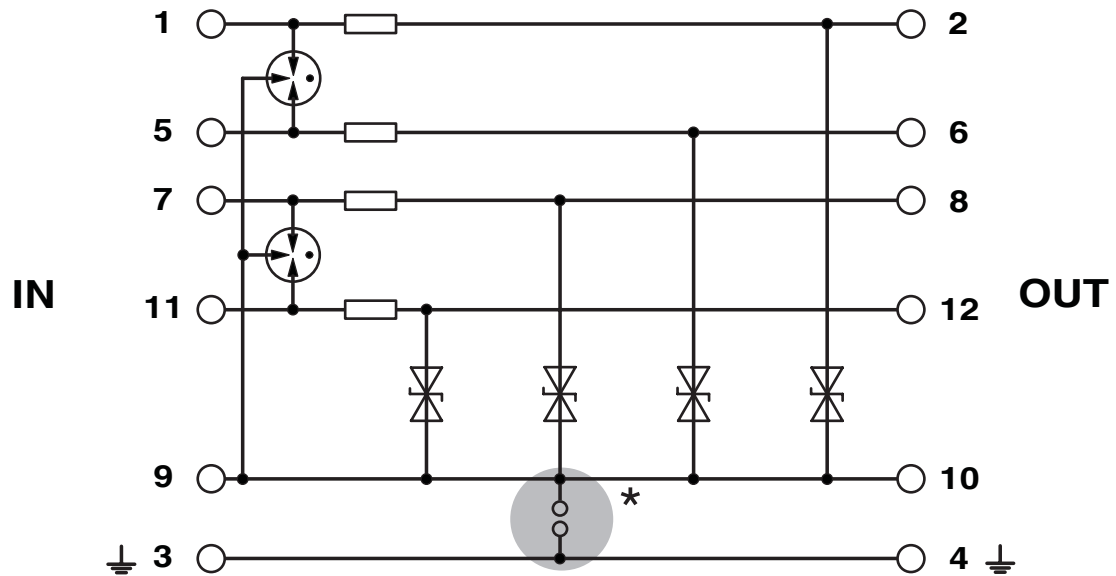
Drawings

Dimensional drawing



The figure shows the complete module consisting of a base element and connector

Circuit diagram



PT 4X1-24DC-ST - Surge protection plug



2838322

<https://www.phoenixcontact.com/us/products/2838322>

Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2838322>



DNV GL

Approval ID: TAE00001N6



UL Listed

Approval ID: FILE E 138168

| | Nominal voltage U_N | Nominal current I_N | Cross section AWG | Cross section mm^2 |
|-------|-----------------------|-----------------------|-------------------|-----------------------------|
| keine | | | | |
| | 24 V | 0.3 A | - | - |



cUL Listed

Approval ID: FILE E 333250



UL Listed

Approval ID: FILE E 333250

PT 4X1-24DC-ST - Surge protection plug



2838322

<https://www.phoenixcontact.com/us/products/2838322>

Classifications

ECLASS

| | |
|-------------|----------|
| ECLASS-13.0 | 27171501 |
| ECLASS-15.0 | 27171501 |

ETIM

| | |
|-----------|----------|
| ETIM 10.0 | EC001466 |
|-----------|----------|

UNSPSC

| | |
|-------------|----------|
| UNSPSC 21.0 | 39121600 |
|-------------|----------|

PT 4X1-24DC-ST - Surge protection plug



2838322

<https://www.phoenixcontact.com/us/products/2838322>

Environmental product compliance

EU RoHS

| | |
|---|--------------|
| Fulfills EU RoHS substance requirements | Yes |
| Exemption | 7(a), 7(c)-I |

China RoHS

| | |
|--|---|
| Environment friendly use period (EFUP) | EFUP-50 |
| | An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required. |

EU REACH SVHC

| | |
|-------------------------------------|--------------------------------------|
| REACH candidate substance (CAS No.) | Lead(CAS: 7439-92-1) |
| SCIP | 0df07124-b21e-4b60-b010-f8f64b179971 |

EF3.1 Climate Change

| | |
|---------|---------------|
| CO2e kg | 1.176 kg CO2e |
|---------|---------------|

Phoenix Contact 2026 © - all rights reserved
<https://www.phoenixcontact.com>

Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com