

PT 4X1- 5DC-ST - Surge protection plug



2838306

<https://www.phoenixcontact.com/us/products/2838306>

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Protective plug PT with protective circuit for 4 conductors of signal circuits grounded on one side.
Nominal voltage: 5 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	2838306
Packing unit	10 pc
Minimum order quantity	1 pc
Sales key	CL21
Product key	CL2111
Catalog page	Page 135 (C-4-2019)
GTIN	4017918182694
Weight per piece (including packing)	26.25 g
Weight per piece (excluding packing)	21.068 g
Customs tariff number	85363010
Country of origin	DE

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2838306

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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	5 V DC
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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- 5DC-ST - Surge protection plug



2838306

<https://www.phoenixcontact.com/us/products/2838306>

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
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Protective circuit

Direction of action	Line-Line & Line-Signal Ground/Shield & optional Signal Ground/Shield-Earth Ground
Maximum continuous voltage U_C	6 V DC
	4 V AC
Rated current	300 mA (45 °C)
Operating effective current I_C at U_C	≤ 1 mA
Residual current I_{PE}	≤ 1 μ A (with PT 4X1+F-BE)
	≤ 4 mA (Directly grounded)
Nominal discharge current I_n (8/20) μ s (line-ground)	10 kA
Pulse discharge current I_{imp} (10/350) μ s	2.5 kA (per path)
Total discharge current I_{Total} (8/20) μ s	20 kA
Max. discharge current I_{max} (8/20) μ s maximum (line-earth)	10 kA
Nominal pulse current I_{an} (10/1000) μ s (line-earth)	125 A
Output voltage limitation at 1 kV/ μ s (line-earth) spike	≤ 14 V
Output voltage limitation at 1 kV/ μ s (line-earth) static	≤ 10 V
Residual voltage at I_n (conductor-ground)	≤ 10 V
Voltage protection level U_p (line-earth)	≤ 50 V (C2 - 10 kV / 5 kA)
Response time t_A (line-earth)	≤ 1 ns
Input attenuation aE, asym.	0.5 dB (≤ 200 kHz)
Cut-off frequency f_g (3 dB), asym. (PE) in 50 Ω system	typ. 1 MHz
Capacity (Core-Earth)	6 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

Degree of protection	IP20
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2838306

<https://www.phoenixcontact.com/us/products/2838306>

Ambient temperature (operation)	-40 °C ... 85 °C
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Standards and regulations

VDE requirement class	C1
	C2
	C3
	D1

Air clearances and creepage distances

Standards/regulations	VDE 0110-1 / IEC 60664-1
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Standards Information technology specification

Standards/regulations	IEC 61643-21
	IEC 61643-21
Standards/specifications	IEC 61643-21
Note	2000

Mounting

Mounting type	on base element
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PT 4X1- 5DC-ST - Surge protection plug

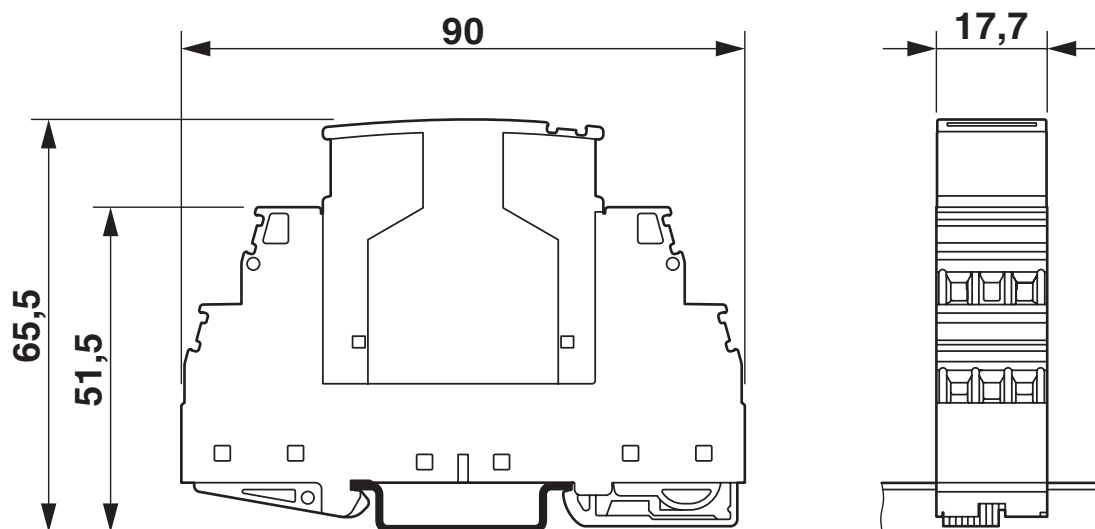
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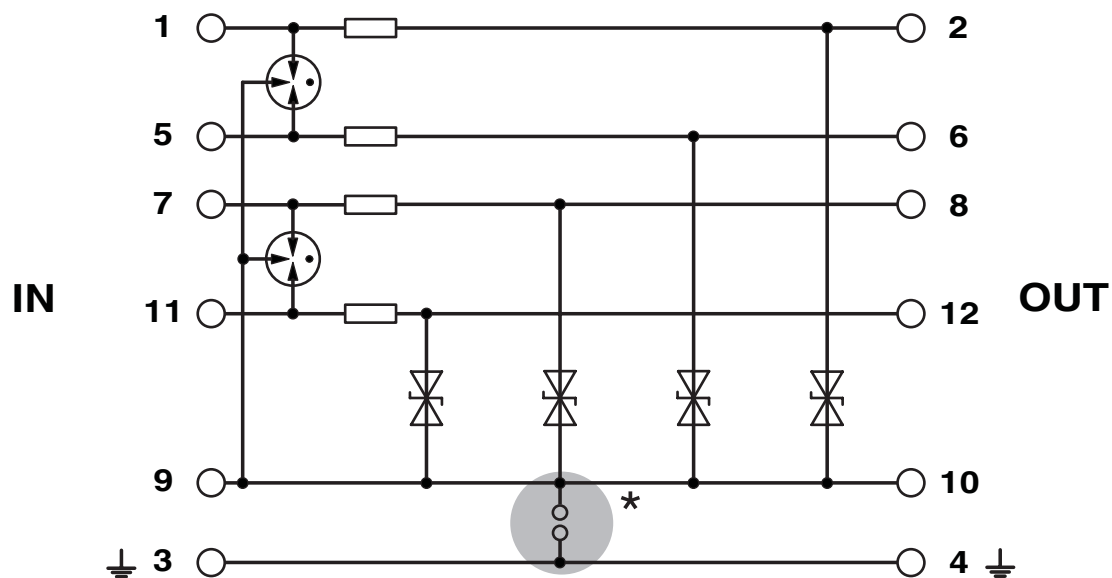
Drawings

Dimensional drawing



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

Circuit diagram



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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2838306>



EAC
Approval ID: EAC-Zulassung



EAC
Approval ID: RU C-DE.*09.B.00169

	UL Listed Approval ID: FILE E 138168			
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
	5 V	0.3 A	-	-



cUL Listed
Approval ID: FILE E 333250



UL Listed
Approval ID: FILE E 333250

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Classifications

ECLASS

ECLASS-13.0	27171501
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ETIM

ETIM 9.0	EC000943
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UNSPSC

UNSPSC 21.0	39121600
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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	ef6420dd-5dbe-4d7c-a320-38e8c69a6580

PT 4X1- 5DC-ST - Surge protection plug



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Mandatory accessories

PT 4X1-BE - Surge protection base-element

2839363

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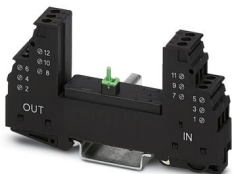


Base element for protective plug PT with protective circuit for 4 conductors of signal circuits grounded on one side, with bridge between the connections 3-4 (GND) and 9-10, for mounting on NS 35/7.5 and NS 35/15, housing width: 17.5 mm

PT 4X1+F-BE - Surge protection base-element

2839376

<https://www.phoenixcontact.com/us/products/2839376>



Base element for protective plug PT with protective circuit for 4 signal wires, with gas-filled surge arrester between the connections 3-4 (GND) and 9-10, for mounting on NS 35/7.5 and NS 35/15, housing width: 17.5 mm

Accessories

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ZBF 5:UNBEDRUCKT - Zack Marker strip, flat

0808642

<https://www.phoenixcontact.com/us/products/0808642>



Zack Marker strip, flat, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: latching, for terminal block width: 5 mm, Number of individual labels: 10, text field height: 5.15 mm, text field width: 5.15 mm

ZBF 5/WH-100:UNBEDRUCKT - Zack Marker strip, flat

0808668

<https://www.phoenixcontact.com/us/products/0808668>



Zack Marker strip, flat, Strip, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, PLOTMARK, mounting type: latching, for terminal block width: 5 mm, Number of individual labels: 1000, text field height: 5.15 mm, text field width: 5.15 mm

PT 4X1- 5DC-ST - Surge protection plug

2838306

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ZBF 5,LGS:FORTL.ZAHLEN - Zack Marker strip, flat

0808671

<https://www.phoenixcontact.com/us/products/0808671>



Zack Marker strip, flat, Strip, white, labeled, printed horizontally: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 491 ... 500, mounting type: latching, for terminal block width: 5 mm, Number of individual labels: 10, text field height: 5.15 mm, text field width: 5.15 mm

ZBF 5,LGS:GERADE ZAHLEN - Zack Marker strip, flat

0810821

<https://www.phoenixcontact.com/us/products/0810821>



Zack Marker strip, flat, Strip, white, labeled, printed horizontally: consecutive even numbers 2 ... 20, 22 ... 40, etc. up to 82 ... 100, mounting type: latching, for terminal block width: 5 mm, Number of individual labels: 10, text field height: 5.15 mm, text field width: 5.15 mm

PT 4X1- 5DC-ST - Surge protection plug



2838306

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ZBF 5,LGS:UNGERADE ZAHLEN - Zack Marker strip, flat

0810863

<https://www.phoenixcontact.com/us/products/0810863>



Zack Marker strip, flat, Strip, white, labeled, printed horizontally: Odd numbers 1 - 19, 21 - 39, etc. up to 81 - 99, mounting type: latching, for terminal block width: 5 mm, Number of individual labels: 10, text field height: 5.15 mm, text field width: 5.15 mm

ZBF 5,QR:FORTL.ZAHLEN - Zack Marker strip, flat

0808697

<https://www.phoenixcontact.com/us/products/0808697>



Zack Marker strip, flat, Strip, white, labeled, Printed vertically: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 91 ... 100, mounting type: latching, for terminal block width: 5 mm, Number of individual labels: 10, text field height: 5.15 mm, text field width: 5.15 mm

PT 4X1- 5DC-ST - Surge protection plug

2838306

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ZBN 18:UNBEDRUCKT - Zack marker strip

2809128

<https://www.phoenixcontact.com/us/products/2809128>



Zack marker strip, Strip, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, PLOTMARK, mounting type: latching, for terminal block width: 18 mm, Number of individual labels: 5, text field height: 5 mm, text field width: 18 mm

ZBN 18 CUS - Zack marker strip

0825059

<https://www.phoenixcontact.com/us/products/0825059>



Zack marker strip, can be ordered: Strip, white, labeled according to customer specifications, mounting type: snap into tall marker groove, for terminal block width: 18 mm, Number of individual labels: 5, text field height: 5 mm, text field width: 18 mm

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SSA 3-6 - Shield connection

2839295

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Shield fast connection for 3 ... 6 mm cable diameter. Potential connecting cable:
200 mm, 1 mm², color: black



SSA 5-10 - Shield connection

2839512

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Shield fast connection for 5 ... 10 mm cable diameter. Potential connecting cable:
200 mm, 1 mm², color: black



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X-PEN 0,35 - Marker pen

0811228

<https://www.phoenixcontact.com/us/products/0811228>



Marker pen without ink cartridge, for manual labeling of markers, labeling extremely wipe-proof, line thickness 0.35 mm

SZS 0,6X3,5 VDE - Screwdriver

1212602

<https://www.phoenixcontact.com/us/products/1212602>



Screwdriver, slot-headed, VDE insulated, size: 0.6 x 3.5 x 100 mm, 2-component grip, with non-slip grip

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