

Surge protection connector - PT 4X1-48AC-ST - 2804856

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Protective plug PT with protective circuit for 4 conductors of signal circuits grounded on one side.
Nominal voltage: 48 V AC

The illustration shows version PT
4x1- 5 DC-ST

Product Features

- ✓ Plugs can be checked with CHECKMASTER
- ✓ Installed in conjunction with the PT 4x1...-BE base element
- ✓ Maximum ease of maintenance thanks to the two-piece design
- ✓ Base element remains an integral part of the installation
- ✓ Consistent plug-in signal circuit protection
- ✓ Protection for four conductors with common reference potential
- ✓ Impedance-neutral disconnection of plug for test and maintenance purposes



Key commercial data

package_quantity	10
GTIN	4046356339865

Technical data

Dimensions

Height	45 mm
Width	17.7 mm
Depth	52 mm
Pitch unit	1 Div.
Height	90 mm
Width	17.7 mm
Depth	65.5 mm

Ambient conditions

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

General

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Technical data

General

Housing material	PA 6.6
Inflammability class according to UL 94	V0
Color	black
Standards for air and creepage distances	VDE 0110-1
Standards for air and creepage distances	IEC 60664-1
Mounting type	On base element
Design	DIN rail module, two-section, divisible
Direction of action	Line-Line & Line-Signal Ground/Shield & optional Signal Ground/Shield-Earth Ground
Arrester can be tested with CHECKMASTER from software version:	From SW rev. 3.17

Protective circuit

IEC test classification	C1
IEC test classification	C2
IEC test classification	C3
IEC test classification	D1
VDE requirement class	C1
VDE requirement class	C2
VDE requirement class	C3
VDE requirement class	D1
Nominal voltage U_N	48 V AC
Maximum continuous operating voltage U_c	77 V DC
Maximum continuous operating voltage U_c	55 V AC
Maximum continuous voltage U_c (wire-ground)	77 V DC (BE: 4x1)
Maximum continuous voltage U_c (wire-ground)	55 V AC (BE: 4x1)
Nominal current I_N	300 mA (45°C)
Operating effective current I_c at U_c	$\leq 5 \mu A$
Residual current I_{PE}	$\leq 1 \mu A$ (BE: 4x1+F)
Residual current I_{PE}	$\leq 20 \mu A$ (BE: 4x1)
Nominal discharge current I_n (8/20) μs (Core-Earth)	10 kA
Total surge current (8/20) μs	20 kA
Max. discharge current I_{max} (8/20) μs maximum (Core-Earth)	10 kA
Nominal pulse current I_{an} (10/1000) μs (Core-Earth)	12 A
Impulse discharge current (10/350) μs , peak value I_{imp}	2.5 kA (per path)
Output voltage limitation at 1 kV/ μs (Core-Earth) static	$\leq 110 V$ (BE: 4x1)
Residual voltage at I_n , (conductor-ground)	$\leq 110 V$ (BE: 4x1)
Residual voltage at I_n , (conductor-GND)	$\leq 110 V$
Residual voltage with I_{an} (10/1000) μs (conductor-ground)	$\leq 125 V$ (BE: 4x1)
Residual voltage with I_{an} (10/1000) μs (conductor-GND)	$\leq 125 V$
Voltage protection level U_p (Core-Earth)	$\leq 150 V$ (C2 (10 kV/5 kA) - BE: 4x1)
Voltage protection level U_p (Core-GND)	$\leq 150 V$ (C2 (10 kV/5 kA))

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Protective circuit

Response time tA (Core-Earth)	≤ 1 ns
Response time tA (Core-Earth)	≤ 1 ns (BE: 4x1)
Input attenuation aE, asym.	0.5 dB (≤ 2.5 MHz / 50 Ω)
Input attenuation aE, asym.	0.2 dB (≤ 0.5 MHz / 150 Ω)
Input attenuation aE, asym.	0.1 dB (≤ 0.1 MHz / 600 Ω)
Cut-off frequency fg (3 dB), asym. (PE) in 50 Ohm system	typ. 10 MHz
Cut-off frequency fg (3 dB), asym. (PE) in 150 Ohm system	typ. 3.5 MHz
Cut-off frequency fg (3 dB), asym. (PE) in 600 Ohm system	typ. 900 kHz
Capacity (Core-Earth)	typ. 400 pF (BE: 4x1)
Resistance in series	4.7 Ω 10 % (Path 1-2/5-6)
Resistance in series	4.7 Ω 10 % (Path 7-8, 11-12)
Message: Surge protection fault	None
Max. required back-up fuse	315 mA (e.g. T (IEC 127-2/III))
Surge carrying capacity in acc. with IEC 61643-21 (Core-Earth)	C2 (10 kV/5 kA)
Surge carrying capacity in acc. with IEC 61643-21 (Core-Earth)	D1 (2.5 kA)

Connection data

Connection method	Screw connection (in connection with the base element)
Connection type IN	PLUGTRAB plug-in system
Connection type OUT	PLUGTRAB plug-in system

Standards and Regulations

Standards/regulations	IEC 61643-21
Standards/regulations	DIN EN 61643-21

classifications

eCl@ss

eCl@ss 4.0	27140201
eCl@ss 4.1	27130801
eCl@ss 5.0	27130801
eCl@ss 5.1	27130801
eCl@ss 6.0	27130807
eCl@ss 7.0	27130807
eCl@ss 8.0	27130807

ETIM

ETIM 2.0	EC000943
ETIM 3.0	EC000943
ETIM 4.0	EC000943
ETIM 5.0	EC000943

UNSPSC

UNSPSC 6.01	30212010
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classifications

UNSPSC

UNSPSC 7.0901	39121610
UNSPSC 11	39121610
UNSPSC 12.01	39121610
UNSPSC 13.2	39121620

approvals

GOST /

Approval details



accessories

Marker pen

X-PEN 0,35 - 0811228



Terminal marking

ZBF 5:UNBEDRUCKT - 0808642



ZBF 5/WH-100:UNBEDRUCKT - 0808668



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accessories

Labeled terminal marker

ZBF 5,LGS:FORTL.ZAHLEN - 0808671



ZBF 5,LGS:GERADE ZAHLEN - 0810821



ZBF 5,LGS:UNGERADE ZAHLEN - 0810863



ZBF 5,QR:FORTL.ZAHLEN - 0808697



Device marking

ZBN 18:UNBEDRUCKT - 2809128



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accessories

ZBF 15:SO/CMS - 0814717



ZBF 5:SO/CMS - 0808707



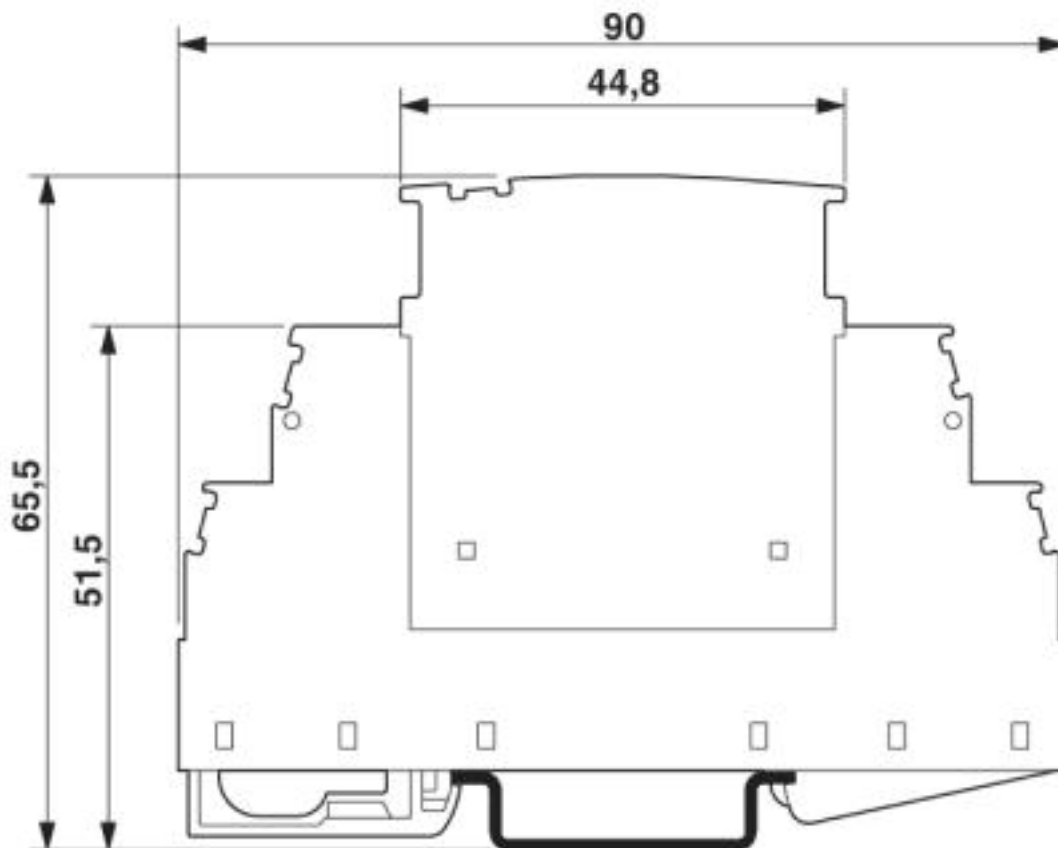
ZBN 18:SO/CMS - 0800763



Drawings

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Dimensioned drawing



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

Circuit diagram

