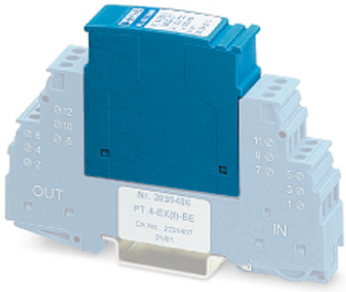
Extract from the online catalog

PT 4-EX(I)-24DC-ST

Order No.: 2839253



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PT protective connector with protective circuit for a 4-wire floating Ex-i signal circuit. Nominal voltage: 24 V DC

Product notes

WEEE/RoHS-compliant since: 06/12/2006

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Commercial data

GTIN (EAN)	4 017918 182878
sales group	J205
Pack	10 pcs.
Customs tariff	85363010
Catalog page information	Page 93 (TT-2009)

Technical data

General

Housing material	PA 6.6
Inflammability class acc. to UL 94	V0
Color	blue

Standards for air and creepage distances	VDE 0110-1
	IEC 60664-1: 1992-10
	EN 60079-11
Total surge current (8/20) µs	20 kA
Total surge current (10/350) µs	2 kA
Ambient temperature (operation)	-40 °C ... 85 °C
Mounting type	On base element
Design	DIN rail module, two-section, divisible
Number of positions	4
Degree of protection	IP20
Direction of action	Line-Line & Line-Signal Ground/Shield & Signal Ground/Shield-Earth Ground
Arrester can be tested with CHECKMASTER from software version:	From SW rev. 1.00
Width	17.70 mm
Height	52.00 mm
Length	45.00 mm
Pitch unit	1 Div.

Protective circuit

IEC category	C1
	C2
	C3
	D1
VDE requirement class	C1
	C2
	C3
	D1
Nominal voltage U_N	24 V DC
Maximum continuous operating voltage U_C	30 V DC
	21 V AC
Maximum continuous voltage UC (wire-wire)	30 V DC
	21 V AC
Nominal current I_N	500 mA (40°C)
Operating effective current I_C at U_C	≤ 5 µA
Ground conductor current I_{PE}	≤ 4 µA

Nominal discharge surge current I_n (8/20) µs (Core-Core)	308 A
Nominal discharge surge current I_n (8/20) µs (Core-Earth)	10 kA
Total surge current (8/20) µs	20 kA
Max. discharge surge current Imax (8/20) µs maximum (Core-Core)	308 A
Max. discharge surge current Imax (8/20) µs maximum (Core-Earth)	10 kA
Nominal pulse current Ian (10/1000) µs (Core-Core)	59 A
Lightning test current (10/350) µs, peak value I_{imp}	1 kA
Output voltage limitation at 1 kV/µs (Core-Earth) spike	≤ 1 kV
Output voltage limitation at 1 kV/µs (Core-Core) static	≤ 45 V
Output voltage limitation at 1 kV/µs (Core-Earth) static	≤ 1 kV
Residual voltage at I_n, (conductor-conductor)	≤ 70 V
Residual voltage with Ian (10/1000)µs (conductor-conductor)	≤ 65 V
Protection level U_P (Core-Core)	≤ 60 V (C1 - 500 V / 250 A)
	≤ 50 V (C3 - 25 A)
Protection level U_P (Core-Earth)	≤ 1 kV (C2 - 10 kV / 5 kA)
	≤ 1 kV (C1 - 1 kV/500 A)
	≤ 1 kV (D1 - 1 kA)
Response time tA (Core-Core)	≤ 1 ns
Response time tA (Core-Earth)	≤ 100 ns
Input attenuation aE, sym.	Typ. 0.1 dB (1 MHz / 50 Ω)
	Typ. 0.1 dB (500 kHz / 150 Ω)
Cut-off frequency fg (3 dB), sym. in 50 Ohm system	Typ. 7 MHz
Cut-off frequency fg (3 dB), sym. in 150 Ohm system	Typ. 2.5 MHz
Max. required back-up fuse	500 mA (e.g. T in acc. with IEC 127-2/III)
Surge carrying capacity in acc. with IEC 61643-21 (Core-Core)	C1 (500 V / 250 A)
Surge carrying capacity in acc. with IEC 61643-21 (Core-Earth)	C2 (10 kV/5 kA)
	D1 (1 kA)

Alternating current carrying capacity in acc. with IEC 61643-21 (Core-Earth)	5 A - 1 s

Connection data

Type of connection	Screw connection (in connection with the base element)
Connection type IN	PLUGTRAB plug-in system
Connection type OUT	PLUGTRAB plug-in system
Conductor cross section stranded min.	0.2 mm²
Conductor cross section stranded max.	2.5 mm²
Conductor cross section solid min.	0.2 mm²
Conductor cross section solid max.	4 mm²
Conductor cross section AWG/kcmil min.	24
Conductor cross section AWG/kcmil max	12

Connection, protective circuit

Standards/regulations	EN 61643-21
	EN 60079-0
	EN 60079-11
	EN 60079-26
	EN 61241-0
	EN 61241-11

General

Maximum inner capacitance C_i	1.1 nF
Maximum inner inductance L_i	1 µH
Maximum inner time factor (R_i/L_i)	≤ 10 µs
Insulation voltage to ground	500 V AC

Conformity / approvals

ATEX	Ex II 1 G Ex ia IIC T4...T6
	Ex II 1 D Ex iaD 20 IP6x T85 °C...135 °C

Certificates / Approvals

Certification	GOST, UCIEE

Certification Ex:	KEMA-EX

Accessories

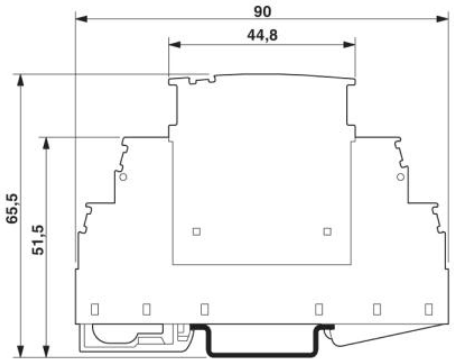
Item	Designation	Description
Marking		
0811228	X-PEN 0,35	Marker pen without ink cartridge, for manual labeling of markers, labeling extremely wipe-proof, line thickness 0.35 mm
0814717	ZBF 15:SO/CMS	Zack strip, flat, 10-section, divisible, special printing, marking according to customer requirements
0808671	ZBF 5,LGS:FORTL.ZAHLEN	Zack marker strip, flat, printed horizontally: 10-section, with the numbers 1 - 10, 11 - 20, and so on up to 491 - 500, color: white
0810821	ZBF 5,LGS:GERADE ZAHLEN	Zack marker strip, flat, printed horizontally: 10-section, with even numbers, printed with the numbers: 2-20, 22-40, etc. up to 82-100
0810863	ZBF 5,LGS:UNGERADE ZAHLEN	Zack strip, flat, printed horizontally: 10-section, with odd numbers, printed with the numbers: 1-19, 21-39 etc. up to 81-99
0808697	ZBF 5,QR:FORTL.ZAHLEN	Zack marker strip, flat, printed vertically: 10-section, with the numbers 1 - 10, 11 - 20, and so on up to 91 - 100, color: white
0808668	ZBF 5/WH-100:UNBEDRUCKT	Zack strip, flat, unprinted: 10-section, for individual labeling with M-PEN or ZBF-T, large batch, sufficient for labeling 1000 terminal blocks, color: white
0808642	ZBF 5:UNBEDRUCKT	Zack strip, flat, unprinted: 10-section, for individual labeling with M-PEN or ZBF-T, sufficient for 100 terminal blocks, color: white
0800763	ZBN 18:SO/CMS	Marker labels, 5-section, special printing, labeled according to customer requirements (Please specify the required marking with order), for terminal width: 17.5 mm, color: White
2809128	ZBN 18:UNBEDRUCKT	Unprinted marker labels, strips with 5 labels for individual labeling with M-PEN or CMS system, for terminal block width: 17.5 mm, color: White

Additional products

Item	Designation	Description
General		
2839486	PT 4-EX(I)-BE	Base element for protective plug PT with protective circuit for a 4-core floating EEx ia signal circuit. Nominal voltage: 24 V DC, for mounting on NS 35/7.5 and NS 35/15, housing width: 17.5 mm

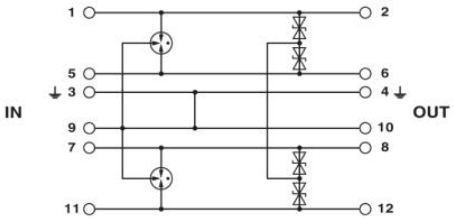
Diagrams/Drawings

Dimensioned drawing



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

Circuit diagram



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