

Surge protection device - PT-IQ-2X2+F-48DC-PT - 2801266

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The figure shows the PT-IQ-2x2-24DC-PT version

Surge protection, consisting of protective plug and base element, with integrated multi-stage status indicator on the module for two 2-wire floating signal circuits. Indirect grounding via gas-filled surge arrester.

Why buy this product

- ✓ Surge protection system
- ✓ Multi-level state monitoring
- ✓ Collective message about supply and remote module
- ✓ System supplied via DIN rail bus
- ✓ Up to 28 protection modules per supply module
- ✓ Maximum ease of maintenance thanks to the two-piece design
- ✓ Codable plug
- ✓ Impedance-neutral disconnection of plug for maintenance purposes
- ✓ Base element remains an integral part of the installation



Key commercial data

Packing unit	1 pc
GTIN	 4 046356 764469
Weight per Piece (excluding packing)	150.0 g
Custom tariff number	85363010
Country of origin	Germany
Note	Made to Order (non-returnable)

Technical data

Dimensions

Height	109.3 mm
Width	17.7 mm
Depth	77.5 mm
Horizontal pitch	1 Div.

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Technical data

Ambient conditions

Ambient temperature (operation)	-40 °C ... 70 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Degree of protection	IP20

General

Housing material	PA 6.6
Inflammability class according to UL 94	V0
Color	black
Mounting type	DIN rail mounting
Type	DIN rail module, two-section, divisible
Direction of action	Line-Line & Line-Signal Ground/Shield & optional Signal Ground/Shield-Earth Ground

Protective circuit

IEC test classification	C1
	C2
	C3
	D1
Nominal voltage U_N	48 V DC
Maximum continuous operating voltage U_C	53 V DC
	37 V AC
Nominal current I_N	300 mA
Operating effective current I_C at U_C	$\leq 5 \mu A$ (per system)
Residual current I_{PE}	$\leq 1 \mu A$
Nominal discharge current I_n (8/20) μs (Core-Core)	10 kA
Nominal discharge current I_n (8/20) μs (Core-Earth)	10 kA
Impulse discharge current (10/350) μs , peak value I_{imp}	2.5 kA
Voltage protection level U_p (core-core)	$\leq 100 V$ (C1 - 1 kV/500 A)
	$\leq 150 V$ (C2 - 10 kV / 5 kA)
	$\leq 90 V$ (C3 - 25 A)
Voltage protection level U_p (core-ground)	$\leq 900 V$ (C1 - 1 kV/500 A)
	$\leq 1300 V$ (C2 - 10 kV / 5 kA)
	$\leq 1000 V$ (C3 - 25 A)
Voltage protection level U_p (core-GND)	$\leq 600 V$ (C1 - 1 kV/500 A)
	$\leq 750 V$ (C2 - 10 kV / 5 kA)
	$\leq 700 V$ (C3 - 25 A)
Voltage protection level U_p static (core-ground)	$\leq 130 V$ (C2 - 10 kV / 5 kA)
	$\leq 60 V$ (C3 - 25 A)
Voltage protection level U_p static (core-GND)	$\leq 60 V$ (C2 - 10 kV / 5 kA)
	$\leq 40 V$ (C3 - 25 A)
Response time t_A (Core-Core)	1 ns

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Technical data

Protective circuit

Response time tA (Core-Earth)	≤ 100 ns
	≤ 100 ns
Input attenuation aE, sym.	typ. 0.3 dB (≤ 450 kHz/150 Ω)
Cut-off frequency fg (3 dB), sym. in 150 Ohm system	typ. 1.9 MHz
Capacity (Core-Core)	typ. 1.5 nF
Resistance in series	1.2 Ω ±5 % (per path)
Surge protection fault message	Optical, multi-stage
Max. required back-up fuse	315 mA (FF)
Impulse durability (conductor-conductor)	C3 - 25 A
Impulse durability (conductor-ground)	C2 - 10 kA
	D1 - 2,5 kA
	C3 - 25 A
Impulse durability (conductor-GND)	C2 - 10 kA
	C3 - 25 A
Pulse reset time (conductor-conductor)	≤ 300 ms
Pulse reset time (conductor-ground)	≤ 30 ms
Pulse reset time (conductor-GND)	≤ 4000 ms
Overload failure mode (connector)	2
Overload failure mode (GND-ground base element)	2

Connection data

Connection method	Push-in connection
Connection type IN	Push-in connection
Connection type OUT	Push-in connection
Stripping length	10 mm
Conductor cross section stranded min.	0.2 mm ²
Conductor cross section stranded max.	2.5 mm ²
Conductor cross section solid min.	0.2 mm ²
Conductor cross section solid max.	4 mm ²
Conductor cross section AWG/kcmil min.	24
Conductor cross section AWG/kcmil max	12

Connection, equipotential bonding

Connection method	NS 35 DIN rail or connection terminal block
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Classifications

eCl@ss

eCl@ss 4.0	27140201
eCl@ss 4.1	27130801
eCl@ss 5.0	27130801
eCl@ss 5.1	27130801

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Classifications

eCl@ss

eCl@ss 6.0	27130807
eCl@ss 7.0	27130807
eCl@ss 8.0	27130807

ETIM

ETIM 3.0	EC000943
ETIM 4.0	EC000943
ETIM 5.0	EC000943

UNSPSC

UNSPSC 6.01	30212010
UNSPSC 7.0901	39121610
UNSPSC 11	39121610
UNSPSC 12.01	39121610
UNSPSC 13.2	39121620

Approvals

Approvals

Approvals

UL Listed / EAC

Ex Approvals

Approvals submitted

Approval details

UL Listed 

EAC

Accessories

Accessories

Device marking

Surge protection device - PT-IQ-2X2+F-48DC-PT - 2801266

Accessories

Zack marker strip - ZBN 18:UNBEDRUCKT - 2809128



Zack marker strip, Strip, white, unlabeled, can be labeled with: Plotter, Mounting type: Snap into tall marker groove, for terminal block width: 18 mm, Lettering field: 18 x 5 mm

Labeled terminal marker

Zack Marker strip, flat - ZBF 5,LGS:FORTL.ZAHLEN - 0808671



Zack Marker strip, flat, Strip, white, labeled, Printed horizontally: Consecutive numbers 1 - 10, 11 - 20, etc. up to 491 - 500, Mounting type: Snap into flat marker groove, for terminal block width: 5 mm, Lettering field: 5.15 x 5.15 mm

Zack Marker strip, flat - ZBF 5,LGS:GERADE ZAHLEN - 0810821



Zack Marker strip, flat, Strip, white, labeled, Printed horizontally: Consecutive numbers 2 - 20, 22 - 40, etc. up to 82 - 100, Mounting type: Snap into flat marker groove, for terminal block width: 5 mm, Lettering field: 5.15 x 5.15 mm

Zack Marker strip, flat - ZBF 5,LGS:UNGERADE ZAHLEN - 0810863



Zack Marker strip, flat, Strip, white, labeled, Printed horizontally: Odd numbers 1 - 19, 21 - 39, etc. up to 81 - 99, Mounting type: Snap into flat marker groove, for terminal block width: 5 mm, Lettering field: 5.15 x 5.15 mm

Zack Marker strip, flat - ZBF 5,QR:FORTL.ZAHLEN - 0808697



Zack Marker strip, flat, Strip, white, labeled, Printed vertically: Consecutive numbers 1 - 10, 11 - 20, etc. up to 91 - 100, Mounting type: Snap into flat marker groove, for terminal block width: 5 mm, Lettering field: 5.15 x 5.15 mm

Marker pen

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Accessories

Marker pen - X-PEN 0,35 - 0811228



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

Mounting material

Electronic housing - E/ME TBUS NS35 GY - 2713780



End clamp, stable construction for DIN rail bus connector

PCB plug

Printed-circuit board connector - FK-MC 0,5/ 5-ST-2,5 - 1881354



Plug component, Nominal current: 4 A, Rated voltage (III/2): 160 V, Number of positions: 5, Pitch: 2.5 mm, Connection method: Spring-cage connection, Color: green, Contact surface: Tin

Terminal marking

Zack Marker strip, flat - ZBF 5:UNBEDRUCKT - 0808642



Zack Marker strip, flat, Strip, white, unlabeled, can be labeled with: Plotter, Mounting type: Snap into flat marker groove, for terminal block width: 5 mm, Lettering field: 5.1 x 5.2 mm

Zack Marker strip, flat - ZBF 5/WH-100:UNBEDRUCKT - 0808668



Zack Marker strip, flat, Strip, white, unlabeled, can be labeled with: Plotter, Mounting type: Snap into flat marker groove, for terminal block width: 5 mm, Lettering field: 5.15 x 5.15 mm

Additional products

Surge protection device - PT-IQ-2X2+F-48DC-PT - 2801266

Accessories

Shield connection - SSA 3-6 - 2839295



shield fast connections for conductor diameter 3 - 6 mm. Potential connection cable: 200 mm, black

Shield connection - SSA 5-10 - 2839512



Shield fast connection for conductor diameters 5 - 10 mm. Potential connection cable: 200 mm, black

Spare parts

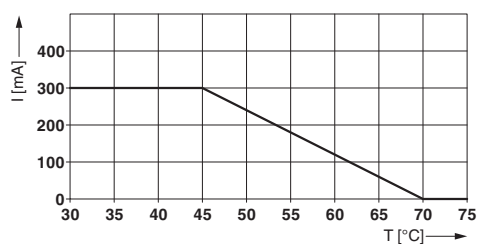
Surge protection plug - PT-IQ-2X2-48DC-P - 2800810



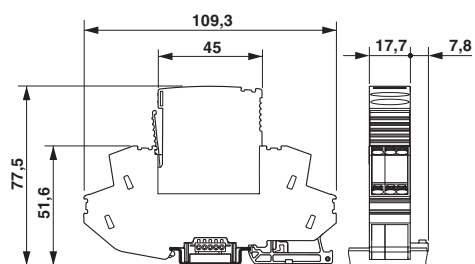
Surge protection plug with integrated multi-stage status indicator on the module for two 2-wire floating signal circuits.
Nominal voltage: 48 V DC

Drawings

Diagram



Dimensioned drawing



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Circuit diagram

