

Surge protection device - D-UFB-PB - 2880642

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Fine surge protection in a 9-pos. D-SUB plug for PROFIBUS-DP applications with a transmission speed of up to 12 Mbps.



Product Features

- Integrated termination resistor
- Data transmission speed up to 12 Mbps
- Direct use at the interface



Key Commercial Data

Packing unit	1 pc
Weight per Piece (excluding packing)	49.6 g
Custom tariff number	85363010
Country of origin	Germany

Technical data

Dimensions

Height	58 mm
Width	44.5 mm
Depth	16.6 mm

Ambient conditions

Ambient temperature (operation)	-20 °C ... 75 °C
Ambient temperature (storage/transport)	-20 °C ... 75 °C
Degree of protection	IP40

General

Housing material	ABS, metal-plated
Color	silver
Standards for clearances and creepage distances	IEC 60664-1

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Technical data

General

	DIN VDE 0110-1
Overvoltage category	II
Degree of pollution	2
Mounting type	Direct assembly on the device interface
Type	Connecting plug
Number of positions	4
Direction of action	Line-Line & Line-Earth Ground

Protective circuit

IEC test classification	C1
	C3
	B2
VDE requirement class	C1
	C3
	B2
Maximum continuous voltage U_C	5.2 V DC
Maximum continuous voltage U_C (wire-wire)	5.2 V DC
Maximum continuous voltage U_C (wire-ground)	5.2 V DC
Nominal current I_N	250 mA (25 °C)
Operating effective current I_C at U_C	$\leq 100 \mu\text{A}$
Residual current I_{PE}	$\leq 100 \mu\text{A}$
Nominal discharge current I_n (8/20) μs (Core-Core)	350 A
Nominal discharge current I_n (8/20) μs (Core-Earth)	350 A
Total surge current (8/20) μs	350 A
Max. discharge current I_{max} (8/20) μs maximum (Core-Core)	350 A
Max. discharge current I_{max} (8/20) μs maximum (Core-Earth)	350 A
Output voltage limitation at 1 kV/ μs (Core-Core) spike	$\leq 20 \text{ V}$
Output voltage limitation at 1 kV/ μs (Core-Earth) spike	$\leq 20 \text{ V}$
Output voltage limitation at 1 kV/ μs (Core-Core) static	$\leq 14 \text{ V}$
Output voltage limitation at 1 kV/ μs (Core-Earth) static	$\leq 14 \text{ V}$
Output voltage limitation (10/700) μs (core-core)	$\leq 15 \text{ V}$ ($U_o=4 \text{ kV}$)
Output voltage limitation (10/700) μs (Core-Earth)	$\leq 15 \text{ V}$ ($U_o=4 \text{ kV}$)
Residual voltage at I_n (conductor-conductor)	$\leq 25 \text{ V}$
Residual voltage at I_n (conductor-ground)	$\leq 25 \text{ V}$
Voltage protection level U_p (core-core)	$\leq 25 \text{ V}$ (C1 (500 V/250 A))
	$\leq 15 \text{ V}$ (C3 - 25 A)
	$\leq 15 \text{ V}$ (B2 (4 kV/100 A))

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Protective circuit

Voltage protection level U_p (core-ground)	≤ 25 V (C1 (500 V/250 A))
	≤ 15 V (C3 - 25 A)
	≤ 15 V (B2 (4 kV/100 A))
Response time t_A (Core-Core)	≤ 500 ns
Response time t_A (Core-Earth)	≤ 500 ns
Cut-off frequency f_g (3 dB), sym. in 100 Ohm system	typ. 70 MHz
Inductivity in series	0.11 μ H
Impulse durability (conductor-conductor)	C1 - 500 V / 250 A
	C3 - 2 kV/25 A
Impulse durability (conductor-ground)	C1 (500 A/250 A)
	C3 - 2 kV/25 A

Connection data

Connection method	Screw connection & D-SUB-9
Connection type IN	Screw terminal blocks
Connection type OUT	D-SUB-9 connector
Connection method	2-wire (shielded)
Screw thread	M2
Tightening torque	0.25 Nm
Stripping length	5 mm
Conductor cross section flexible	0.14 mm ² ... 1.5 mm ²
Conductor cross section solid	0.14 mm ² ... 1.5 mm ²
Conductor cross section AWG	26 ... 16

Connection, equipotential bonding

Connection method	PVC Litz wire, 1.0 mm ² , 0.5 m length
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Standards and Regulations

Standards/regulations	IEC 61643-21
	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

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Classifications

eCl@ss

eCl@ss 7.0	27130807
eCl@ss 8.0	27130807
eCl@ss 9.0	27130807

ETIM

ETIM 2.0	EC000943
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

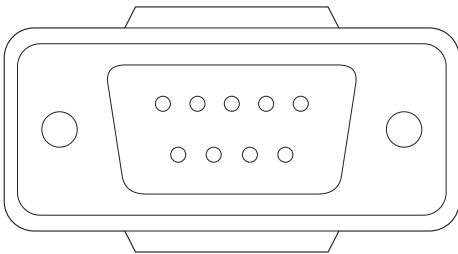
UL Listed 

EAC

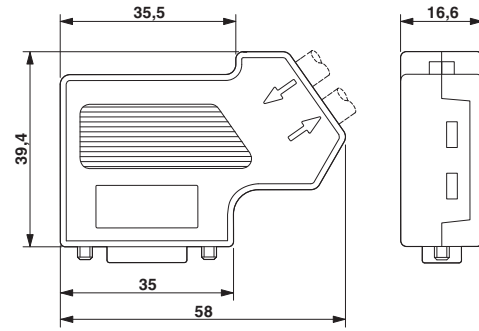
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Drawings

Product drawing

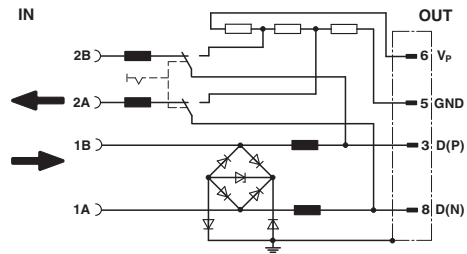


Dimensional drawing



Dimensional drawing: D-UFB-PB

Circuit diagram



Mouser Electronics

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