

D-UFB-PB - Surge protection device



2880642

<https://www.phoenixcontact.com/pc/products/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.



Your advantages

- Space saving with use directly at the interface
- Can be in applications up to 12 Mbps with adapted protective circuit
- Adjustment of the transmission properties with switchable termination resistor

Commercial Data

Item number	2880642
Packing unit	1 pc
Minimum order quantity	1 pc
Product Key	CL3113
Catalog Page	Page 155 (C-4-2017)
GTIN	4046356048989
Weight per Piece (including packing)	52.8 g
Weight per Piece (excluding packing)	52.8 g
Customs tariff number	85363010
Country of origin	DE

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Technical Data

Product properties

IEC test classification	C1
	C3
	B2
VDE requirement class	C1
	C3
	B2
Type	Connecting plug
Product type	Surge protection for information technology
Product family	DATATRAB
Number of positions	4
Surge protection fault message	none
Pin assignment	3, 5, 6, 8

Insulation characteristics

Overvoltage category	II
Pollution degree	2

Connection data

D-SUB connection

Connection method	D-SUB connector
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PCB connection

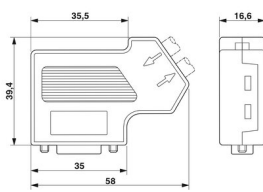
Connection method	Screw connection
Stripping length	5 mm
Conductor cross section solid min.	0.14 mm ²
Conductor cross section solid max.	1.5 mm ²
Conductor cross section flexible min.	0.14 mm ²
Conductor cross section flexible max.	1 mm ²
Conductor cross section AWG min.	26
Conductor cross section AWG max.	16
Connection method	Screw connection & D-SUB-9
Screw thread	M2
Tightening torque	0.25 Nm
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

Dimensions

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Dimensional drawing	
Width	44.5 mm
Height	58 mm
Depth	16.6 mm

External dimensions

External diameter min.	7.6 mm
External diameter max.	8.4 mm

Material specifications

Color	silver
Housing material	ABS, metal-plated

Mechanical properties

Mechanical data

Open side panel	No
Insertion/withdrawal cycles	> 200

Protective circuit

Direction of action	Line-Line & Line-Earth Ground
Maximum continuous voltage U_C	5.2 V DC
Rated current	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 (line-line)	350 A
Nominal discharge surge current I_n (8/20) μs (Core-Earth)	350 A
Total discharge current I_{total} (8/20) μs	350 A
Max. discharge current I_{max} (8/20) μs maximum (line-line)	350 A
Max. discharge current I_{max} (8/20) μs maximum (line-earth)	350 A
Output voltage limitation at 1 kV/ μs (line-line) spike	≤ 20 V
Output voltage limitation at 1 kV/ μs (line-earth) spike	≤ 20 V
Output voltage limitation at 1 kV/ μs (line-line) static	≤ 14 V
Output voltage limitation at 1 kV/ μs (line-earth) static	≤ 14 V
Output voltage limitation (10/700) μs (line-line)	≤ 15 V ($U_0=4$ kV)
Output voltage limitation (10/700) μs (line-earth)	≤ 15 V ($U_0=4$ kV)
Residual voltage at I_n (conductor-conductor)	≤ 25 V
Residual voltage at I_n (conductor-ground)	≤ 25 V
	≤ 25 V (C1 - 500 V / 250 A)

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Voltage protection level U_p (line-line)	≤ 15 V (C3 - 25 A)
	≤ 15 V (B2 - 4 kV / 100 A)
Voltage protection level U_p (line-earth)	≤ 25 V (C1 - 500 V / 250 A)
	≤ 15 V (C3 - 25 A)
	≤ 15 V (B2 - 4 kV / 100 A)
Response time t_A (line-line)	≤ 500 ns
Response time t_A (line-earth)	≤ 500 ns
Cut-off frequency f_g (3 dB), sym. in 100 Ω system	typ. 70 MHz
Inductivity in series	0.11 μ H
Surge protection fault message	none
Impulse durability (line-line)	C1 - 500 V / 250 A
	C3 - 2 kV / 25 A
Impulse durability (line-earth)	C1 - 500 V / 250 A
	C3 - 2 kV/25 A

Environmental and real-life conditions

Ambient conditions

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

Standards and regulations

VDE requirement class	C1
	C3
	B2

Air clearances and creepage distances

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

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

Mounting

Mounting type	Direct assembly on the device interface
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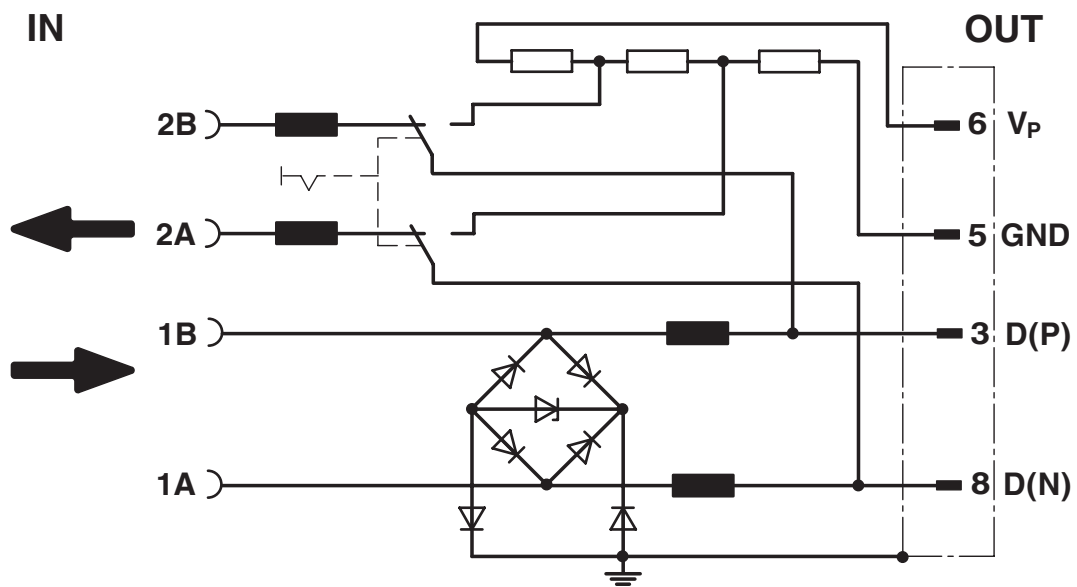
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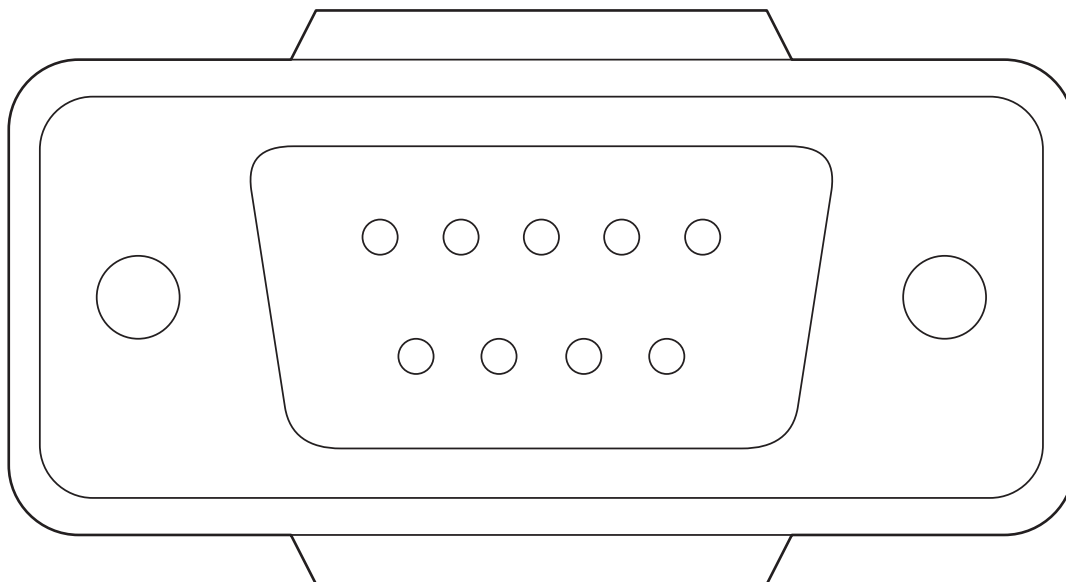
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Drawings

Circuit diagram



Product drawing



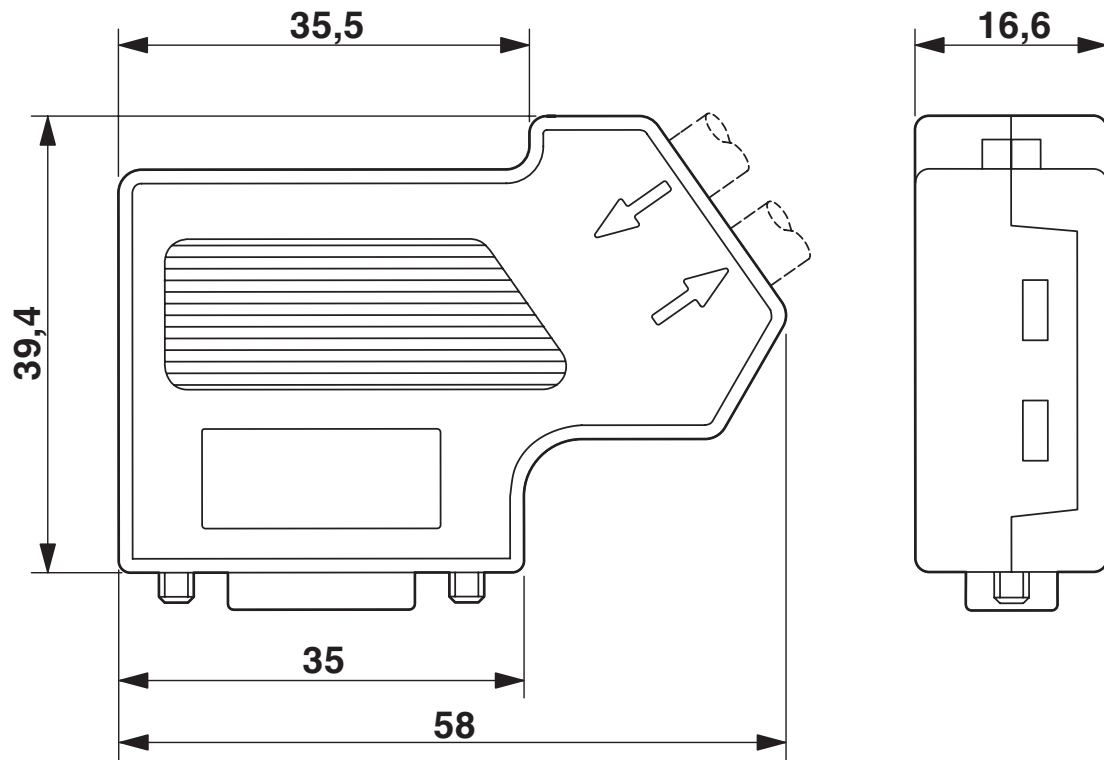
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Dimensional drawing



Dimensional drawing: D-UFB-PB

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Classifications

ECLASS

ECLASS-9.0	27130807
ECLASS-10.0.1	27130807
ECLASS-11.0	27130807

ETIM

ETIM 8.0	EC000943
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UNSPSC

UNSPSC 21.0	39121600
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Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads"

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