

## 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.




### Your advantages

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



### Key Commercial Data

Packing unit	1 pc
GTIN	 4 046356 048989
GTIN	4046356048989
Weight per Piece (excluding packing)	49.600 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

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### Technical data

#### Ambient conditions

Degree of protection	IP40
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#### General

Housing material	ABS, metal-plated
Color	silver
Standards for clearances and creepage distances	IEC 60664-1
	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
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) $\mu\text{s}$ (line-line)	350 A
Nominal discharge current $I_n$ (8/20) $\mu\text{s}$ (line-earth)	350 A
Total discharge current $I_{total}$ (8/20) $\mu\text{s}$	350 A
Max. discharge current $I_{max}$ (8/20) $\mu\text{s}$ maximum (line-line)	350 A
Max. discharge current $I_{max}$ (8/20) $\mu\text{s}$ maximum (line-earth)	350 A
Output voltage limitation at 1 kV/ $\mu\text{s}$ (line-line) spike	$\leq 20 \text{ V}$
Output voltage limitation at 1 kV/ $\mu\text{s}$ (line-earth) spike	$\leq 20 \text{ V}$
Output voltage limitation at 1 kV/ $\mu\text{s}$ (line-line) static	$\leq 14 \text{ V}$
Output voltage limitation at 1 kV/ $\mu\text{s}$ (line-earth) static	$\leq 14 \text{ V}$
Output voltage limitation (10/700) $\mu\text{s}$ (line-line)	$\leq 15 \text{ V}$ ( $U_0=4 \text{ kV}$ )
Output voltage limitation (10/700) $\mu\text{s}$ (line-earth)	$\leq 15 \text{ V}$ ( $U_0=4 \text{ kV}$ )
Residual voltage at $I_n$ (line-line)	$\leq 25 \text{ V}$
Residual voltage at $I_n$ (line-earth)	$\leq 25 \text{ V}$

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## Technical data

### Protective circuit

Voltage protection level $U_p$ (line-line)	$\leq 25$ V (C1 - 500 V / 250 A)
	$\leq 15$ V (C3 - 25 A)
	$\leq 15$ V (B2 - 4 kV / 100 A)
Voltage protection level $U_p$ (line-earth)	$\leq 25$ V (C1 - 500 V / 250 A)
	$\leq 15$ V (C3 - 25 A)
	$\leq 15$ V (B2 - 4 kV / 100 A)
Response time $t_A$ (line-line)	$\leq 500$ ns
Response time $t_A$ (line-earth)	$\leq 500$ ns
Cut-off frequency $f_g$ (3 dB), sym. in 100 Ohm system	typ. 70 MHz
Inductivity in series	0.11 $\mu$ 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

### Connection data

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

### Connection, equipotential bonding

Connection method	PVC Litz wire, 1.0 mm <sup>2</sup> , 0.5 m length
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### Standards and Regulations

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

### Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years

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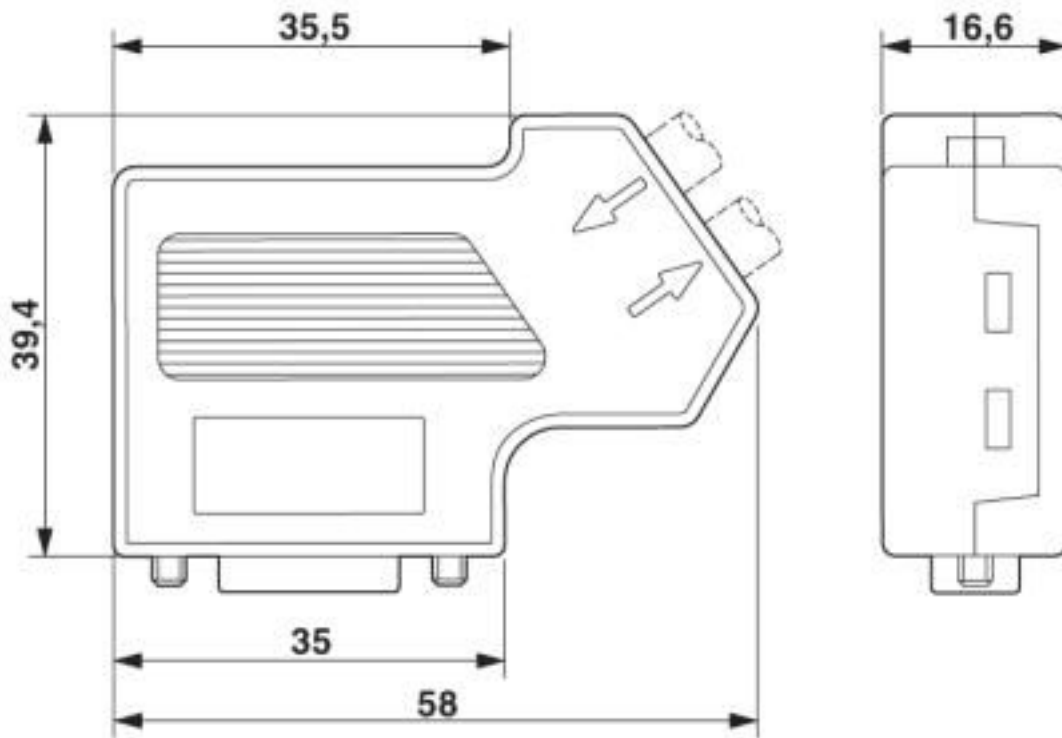
Technical data

Environmental Product Compliance

For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

## Drawings

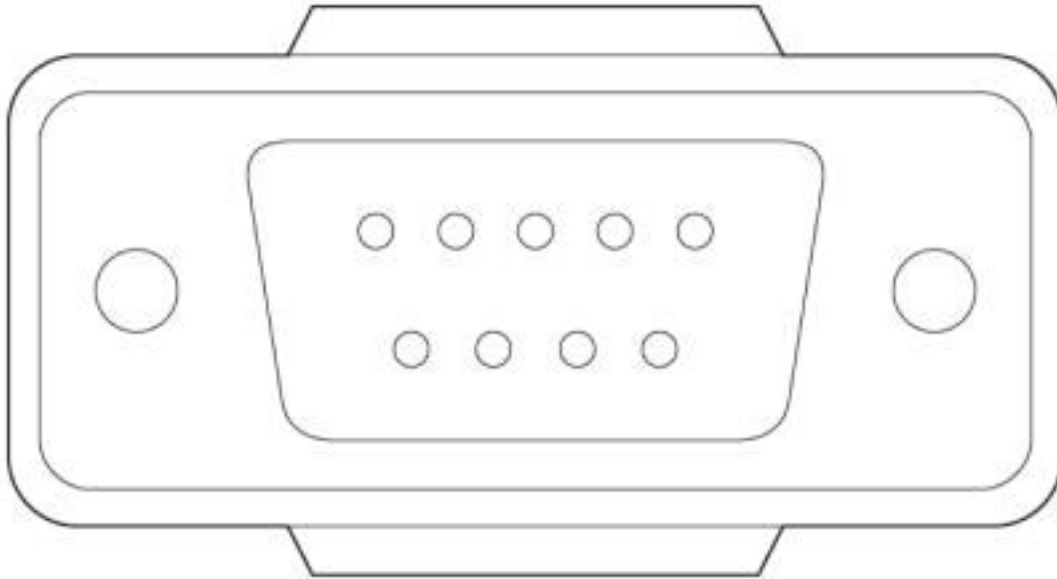
Dimensional drawing



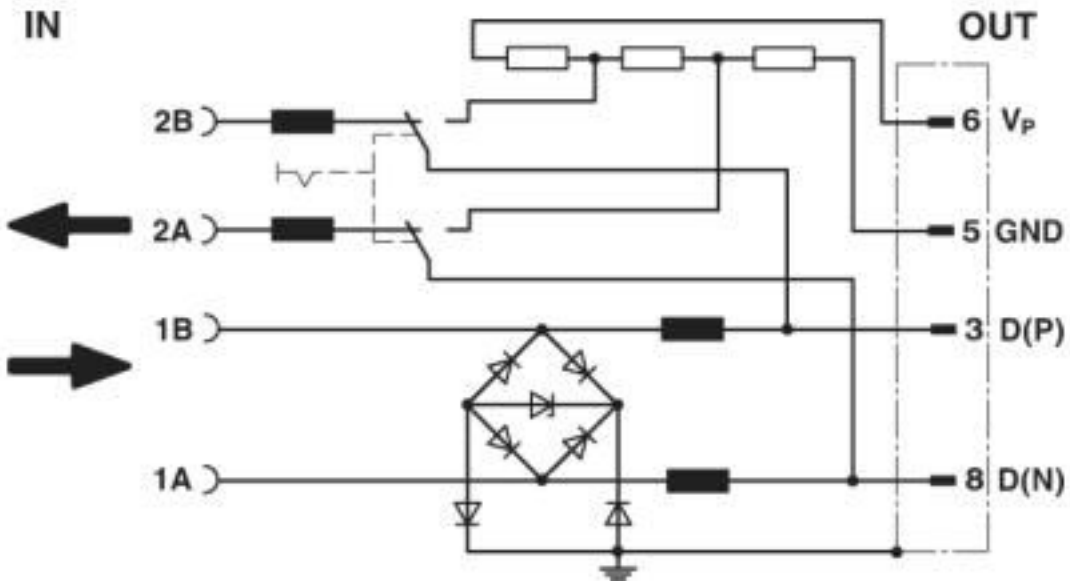
Dimensional drawing: D-UFB-PB

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Product drawing



Circuit diagram



## Classifications

eCl@ss

eCl@ss 10.0.1	27130807
eCl@ss 4.0	27130800

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## Classifications

### eCl@ss

eCl@ss 4.1	27130800
eCl@ss 5.0	27130800
eCl@ss 5.1	27130800
eCl@ss 6.0	27130800
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
ETIM 6.0	EC000943
ETIM 7.0	EC000943

### UNSPSC

UNSPSC 6.01	30212010
UNSPSC 7.0901	39121610
UNSPSC 11	39121610
UNSPSC 12.01	39121610
UNSPSC 13.2	39121620
UNSPSC 18.0	39121620
UNSPSC 19.0	39121620
UNSPSC 20.0	39121620
UNSPSC 21.0	39121620

## Approvals

### Approvals

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Approvals

UL Listed / EAC

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Ex Approvals

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### Approval details

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### Approvals

UL Listed



<http://database.ul.com/cgi-bin/XYVV/template/LISEXT/1FRAME/index.htm>

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EAC



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