


**D-UFB-PB**

Order No.: 2880642

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

**PROFI  
BUS****Commercial data**

GTIN (EAN)	
sales group	J400
Pack	1 pcs.
Customs tariff	85363010
Catalog page information	Page 149 (TT-2009)

**Product notes**

WEEE/RoHS-compliant since:  
03/22/2007



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**Technical data****General**

Housing material	ABS, metal-plated
Color	silver
Standards for air and creepage distances	IEC 60664-1: 1992-10
	DIN VDE 0110-1

Surge voltage category	II
Pollution degree	2
Total surge current (8/20) $\mu$ s	350 A
Ambient temperature (operation)	-20 °C ... 75 °C
Ambient temperature (storage/transport)	-20 °C ... 75 °C
Mounting type	Direct assembly on the device interface
Design	Connecting plug
Number of positions	4
Degree of protection	IP40
Direction of action	Line-Line & Line-Earth Ground
Width	44.50 mm
Height	36.00 mm
Length	56.40 mm

**Protective circuit**

IEC category	C1
	C3
	B2
VDE requirement class	C1
	C3
	B2
Maximum continuous operating 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 $U_c$	$\leq 100 \mu$ A
Ground conductor current $I_{PE}$	$\leq 100 \mu$ A
Nominal discharge surge current $I_n$ (8/20) $\mu$ s (Core-Core)	350 A
Nominal discharge surge current $I_n$ (8/20) $\mu$ s (Core-Earth)	350 A
Total surge current (8/20) $\mu$ s	350 A
Max. discharge surge current $I_{max}$ (8/20) $\mu$ s maximum (Core-Core)	350 A
Max. discharge surge current $I_{max}$ (8/20) $\mu$ s maximum (Core-Earth)	350 A
Output voltage limitation at 1 kV/ $\mu$ s (Core-Core) spike	$\leq 20$ V

Output voltage limitation at 1 kV/ $\mu$ s (Core-Earth) spike	$\leq 20$ V
Output voltage limitation at 1 kV/ $\mu$ s (Core-Core) static	$\leq 14$ V
Output voltage limitation at 1 kV/ $\mu$ s (Core-Earth) static	$\leq 14$ V
Output voltage limitation (10/700) $\mu$ s (Core-Core)	$\leq 15$ V (U <sub>o</sub> =4 kV)
Output voltage limitation (10/700) $\mu$ s (Core-Earth)	$\leq 15$ V (U <sub>o</sub> =4 kV)
Residual voltage at I <sub>n</sub> , (conductor-conductor)	$\leq 25$ V
Residual voltage at I <sub>n</sub> , (conductor-ground)	$\leq 25$ V
Protection level U <sub>p</sub> (Core-Core)	$\leq 25$ V (C1 (500 V/250 A))
	$\leq 15$ V (C3 (25 A))
	$\leq 15$ V (B2 (4 kV/100 A))
Protection level U <sub>p</sub> (Core-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 <sub>A</sub> (Core-Core)	$\leq 500$ ns
Response time t <sub>A</sub> (Core-Earth)	$\leq 500$ ns
Cut-off frequency f <sub>g</sub> (3 dB), sym. in 100 Ohm system	Typ. 70 MHz
Inductivity in series	0.11 $\mu$ H
Surge carrying capacity in acc. with IEC 61643-21 (Core-Core)	C1 (500 V / 250 A)
	C3 (2 kV / 25 A)
Surge carrying capacity in acc. with IEC 61643-21 (Core-Earth)	C1 (500 A/250 A)
	C3 (2 kV/25 A)

**Connection data**

Type of connection	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 stranded min.	0.14 mm <sup>2</sup>
Conductor cross section stranded max.	1.5 mm <sup>2</sup>

Conductor cross section solid min.	0.14 mm <sup>2</sup>
Conductor cross section solid max.	1.5 mm <sup>2</sup>
Conductor cross section AWG/kcmil min.	26
Conductor cross section AWG/kcmil max	16

**Connection, equipotential bonding**

Type of connection	PVC Litz wire, 1.0 mm <sup>2</sup> , 0.5 m length
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**Connection, protective circuit**

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

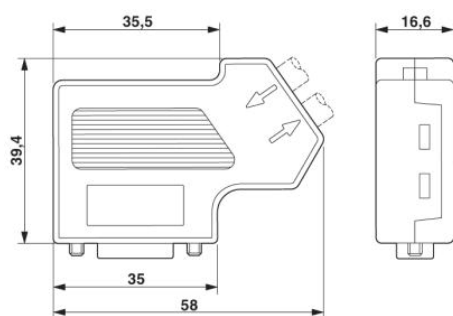
**Certificates / Approvals**

Certification

GOST

**Diagrams/Drawings**

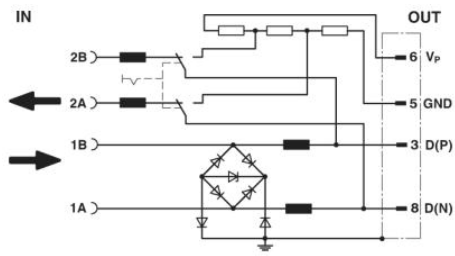
Dimensioned drawing



Dimensional drawing: D-UFB-PB

Circuit diagram

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