

Surge protection device - TTC-3-1X2-24DC-PT - 2907325

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Surge protection for a 2-wire floating signal circuit, e.g., 0(4) ... 20 mA current loop, HART-compatible.

Your advantages

- ✓ Extremely space-saving installation due to the narrowest overall width of just 3.5 mm
- ✓ Quick and tool-free installation of surge protective devices, thanks to Push-in connection technology



Key Commercial Data

Packing unit	1 pc
GTIN	 4 055626 199917
GTIN	4055626199917
Weight per Piece (excluding packing)	19.500 g
Weight per piece (including packing)	24.900 g
Custom tariff number	85363030
Country of origin	Germany
Sales Key	K1 - Overvoltage Protect.

Technical data

Dimensions

Height	106 mm
Width	3.5 mm
Depth	69.5 mm (incl. DIN rail 7.5 mm)

Ambient conditions

Ambient temperature (operation)	-40 °C ... 85 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Altitude	≤ 4000 m (amsl (above mean sea level))
Degree of protection	IP20 (with end cover)

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Technical data

General

Housing material	PBT
Flammability rating according to UL 94	V-0
Color	traffic grey A RAL 7042
Mounting type	DIN rail: TH 35 - 7.5 mm
Type	DIN rail module, one-piece
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	24 V DC
Maximum continuous voltage U_C	30 V DC
	21 V AC
Rated current	250 mA (70°C)
Operating effective current I_C at U_C	$\leq 1 \mu\text{A}$
Residual current I_{PE}	$\leq 1 \mu\text{A}$
Nominal discharge current I_n (8/20) μs (line-line)	5 kA
Nominal discharge current I_n (8/20) μs (line-earth)	5 kA
Pulse discharge current I_{imp} (10/350) μs (line-earth)	0.5 kA
Total discharge current I_{total} (8/20) μs	10 kA
Voltage protection level U_p (line-line)	$\leq 50 \text{ V}$ (C1 - 500 V / 250 A)
	$\leq 70 \text{ V}$ (C2 - 10 kV / 5 kA)
	$\leq 45 \text{ V}$ (C3 - 30 A)
Voltage protection level U_p (line-earth)	$\leq 1000 \text{ V}$ (C2 - 10 kV / 5 kA)
	$\leq 1000 \text{ V}$ (C3 - 100 A)
Voltage protection level U_p static (line-line)	$\leq 50 \text{ V}$ (C1 - 1 kV/500 A)
Response time t_A (line-line)	$\leq 1 \text{ ns}$
Input attenuation aE, sym.	typ. 0.3 dB ($\leq 600 \text{ kHz}$ / 150 Ω)
Cut-off frequency f_g (3 dB), sym. in 150 Ohm system	typ. 2.4 MHz
Capacity (line-line)	typ. 1 nF
Resistance in series	2.2 $\Omega \pm 10 \%$
Impulse durability (line-line)	C1 - 500 V / 250 A
	C2 - 10 kV / 5 kA
	C3 - 30 A
Impulse durability (line-earth)	C2 - 10 kV / 5 kA
	C3 - 100 A
	D1 - 500 A
Pulse reset time (line-line)	$\leq 30 \text{ ms}$

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Connection data

Connection method	Push-in connection
Stripping length	8 mm
Conductor cross section flexible	0.2 mm ² ... 1.5 mm ²
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.2 mm ² ... 1 mm ²
Conductor cross section flexible, with ferrule without plastic sleeve	0.2 mm ² ... 1.5 mm ²
Conductor cross section solid	0.2 mm ² ... 1.5 mm ²
Conductor cross section AWG	24 ... 16

Standards and Regulations

Standards/specifications	IEC 61643-21 2000 + corrigendum 2001 + A1:2008, modified + A2:2012
	EN 61643-21 2001 + A1:2009 + A2:2013

Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"