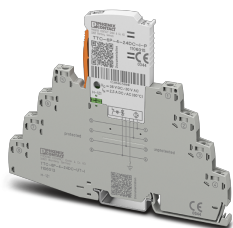


# Surge protection device - TTC-6P-4-24DC-UT-I - 1106013

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Surge protection, consisting of protective plug and base element, with integrated status indicator for a 4-wire floating signal circuit with high nominal current. Ideal for 4-conductor measurements, e.g., of temperature and weight.

## Your advantages

- ✓ Efficient use of space: the narrowest pluggable surge protection solution for 4-conductor applications
- ✓ Easy function monitoring: on-site or optionally via remote signaling, with optical monitoring, without additional effort
- ✓ Servicing without affecting the signal: replace the surge protection module without affecting the measuring signal
- ✓ Flexible choice: Push-in Technology or screw connection



## Key Commercial Data

Packing unit	1 pc
GTIN	 4 055626 996837
GTIN	4055626996837
Weight per Piece (excluding packing)	55.000 g
Custom tariff number	85363010
Country of origin	Germany
Sales Key	CL2161

## Technical data

### Dimensions

Height	125 mm
Width	6.2 mm +0.1 mm
Depth	100 mm (incl. DIN rail 7.5 mm)

### Ambient conditions

Ambient temperature (operation)	-40 °C ... 85 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Permissible humidity (operation)	5 % ... 95 %

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## Technical data

### Ambient conditions

Altitude	≤ 4000 m (amsl (above mean sea level))
Degree of protection	IP20

### General

Housing material	PBT
Flammability rating according to UL 94	V-0
Color	traffic grey A RAL 7042 light grey RAL 7035
Mounting type	DIN rail: TH 35 - 7.5 mm
Type	DIN rail module, two-section, divisible
Direction of action	Line-Line & Line-Earth Ground

### Protective circuit

IEC test classification	C1 C2 C3 D1
Nominal voltage $U_N$	24 V DC 24 V AC
Maximum continuous voltage $U_C$	36 V DC 30 V AC
Rated current	2.5 A (60°C for insulated systems)
Operating effective current $I_C$ at $U_C$	≤ 5 μA
Residual current $I_{PE}$	≤ 1 μA
Nominal discharge current $I_n$ (8/20) μs (line-line)	350 A
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)	≤ 100 V (C1 - 0.7 kV / 350 A) ≤ 100 V (C3 - 50 A) ≤ 80 V (C3 - 25 A)
Voltage protection level $U_p$ (line-earth)	≤ 900 V (C1 - 1 kV/500 A) ≤ 900 V (C2 - 10 kV / 5 kA)
Response time $t_A$ (line-line)	≤ 1 ns
Response time $t_A$ (line-earth)	≤ 100 ns
Input attenuation aE, sym.	typ. 0.3 dB (≤ 12 MHz / 150 Ω)
Cut-off frequency $f_g$ (3 dB), sym. in 150 Ω system	> 60 MHz
Capacity (line-line)	typ. 30 pF
Capacity (line-earth)	typ. 30 pF
Resistance per path	0.03 Ω
Surge protection fault message	optical

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## Technical data

### Protective circuit

Max. required back-up fuse	2.5 A (F)
Impulse durability (line-line)	C1 - 700 V / 350 A
	C3 - 50 A
Impulse durability (line-earth)	C1 - 1 kV / 500 A
	C2 - 10 kV / 5 kA
	C3 - 100 A
	D1 - 500 A

### Connection data

Connection method	Screw connection
Screw thread	M3
Tightening torque	0.5 Nm ... 0.6 Nm
Stripping length	8 mm
Conductor cross section flexible	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross section solid	0.2 mm <sup>2</sup> ... 4 mm <sup>2</sup>
Conductor cross section AWG	24 ... 12

### 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

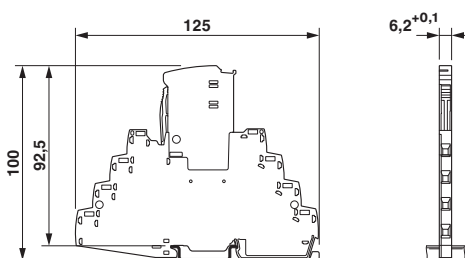
REACH SVHC	Lead 7439-92-1
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## Drawings

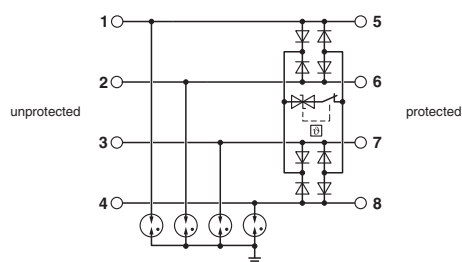
Pictogram



Dimensional drawing



Circuit diagram



Diagram

