

## 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

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

#### General

Housing material	PBT
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## Technical data

### General

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
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 $U_C$	$\leq 5 \mu A$
Residual current $I_{PE}$	$\leq 1 \mu A$
Nominal discharge current $I_n$ (8/20) $\mu s$ (line-line)	0.5 kA
Nominal discharge current $I_n$ (8/20) $\mu s$ (line-earth)	5 kA
Voltage protection level $U_p$ (line-line)	$\leq 90 V$ (C1 - 1 kV/500 A)
	$\leq 70 V$ (C3 - 70 A)
Voltage protection level $U_p$ (line-earth)	$\leq 900 V$ (C1 - 1 kV/500 A)
	$\leq 900 V$ (C2 - 10 kV / 5 kA)
Response time $t_A$ (line-line)	$\leq 1 ns$
Response time $t_A$ (line-earth)	$\leq 100 ns$
Input attenuation aE, sym.	typ. 0.3 dB ( $\leq 12 MHz / 150 \Omega$ )
Cut-off frequency $f_g$ (3 dB), sym. in 150 Ohm system	$> 60 MHz$
Capacity (line-line)	typ. 30 pF
Capacity (line-earth)	typ. 30 pF
Resistance per path	0.03 $\Omega$
Surge protection fault message	optical
Max. required back-up fuse	2.5 A (F)
Impulse durability (line-line)	C1 - 1 kV / 500 A
	C3 - 70 A
Impulse durability (line-earth)	C1 - 1 kV / 500 A
	C2 - 10 kV / 5 kA
	C3 - 100 A

### Connection data

Connection method	Screw connection
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## Technical data

### Connection data

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

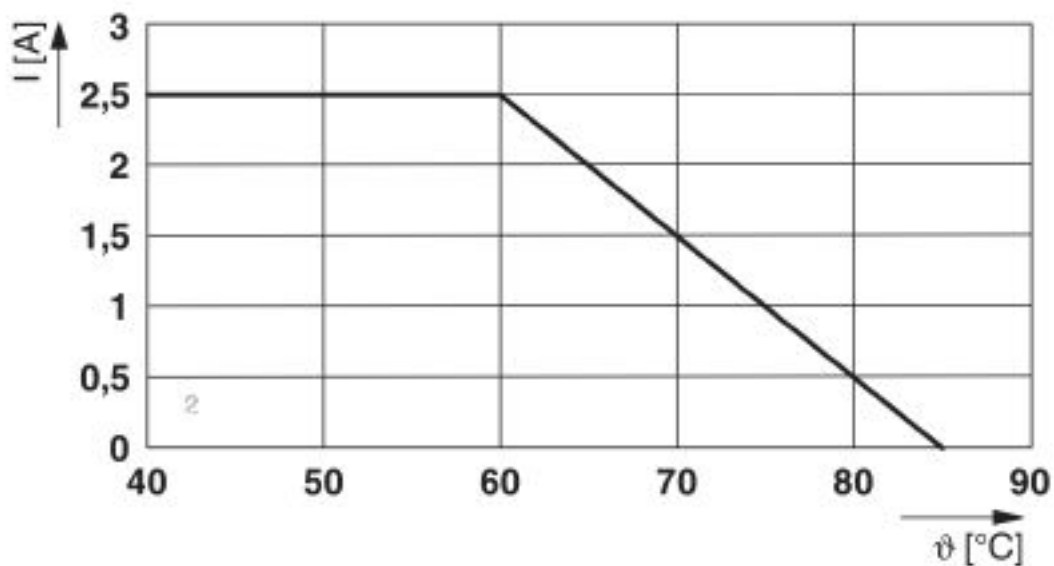
Standards/specifications	IEC 61643-21 2000 + corrigendum 2001 + A1:2008, modified + A2:2012
	EN 61643-21 2001 + A1:2009 + A2:2013

### Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
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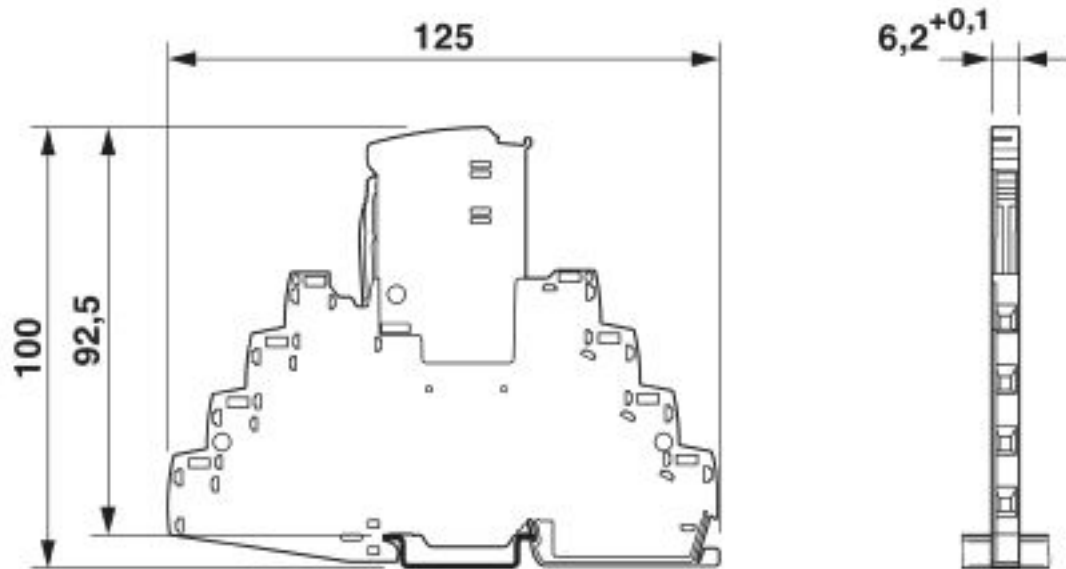
## Drawings

Diagram

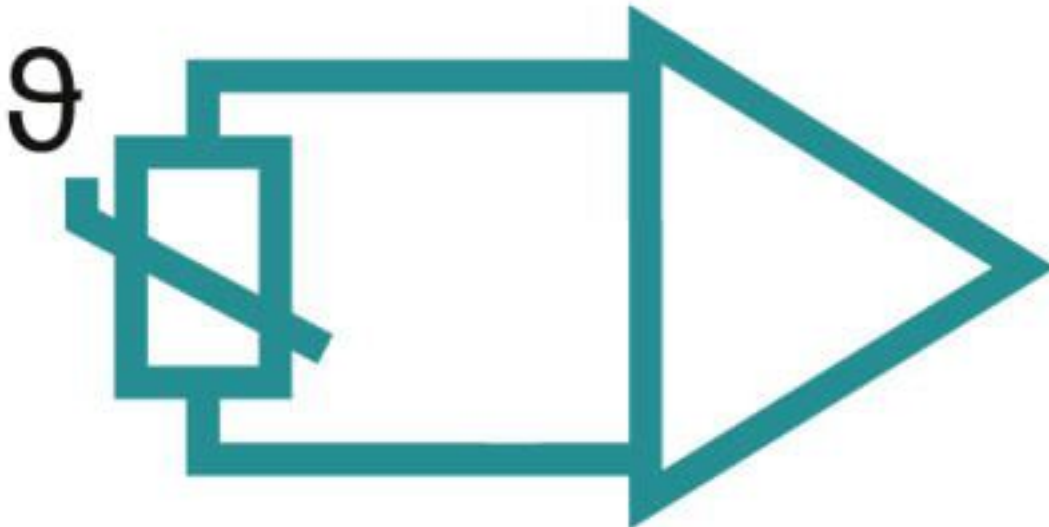


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Dimensional drawing

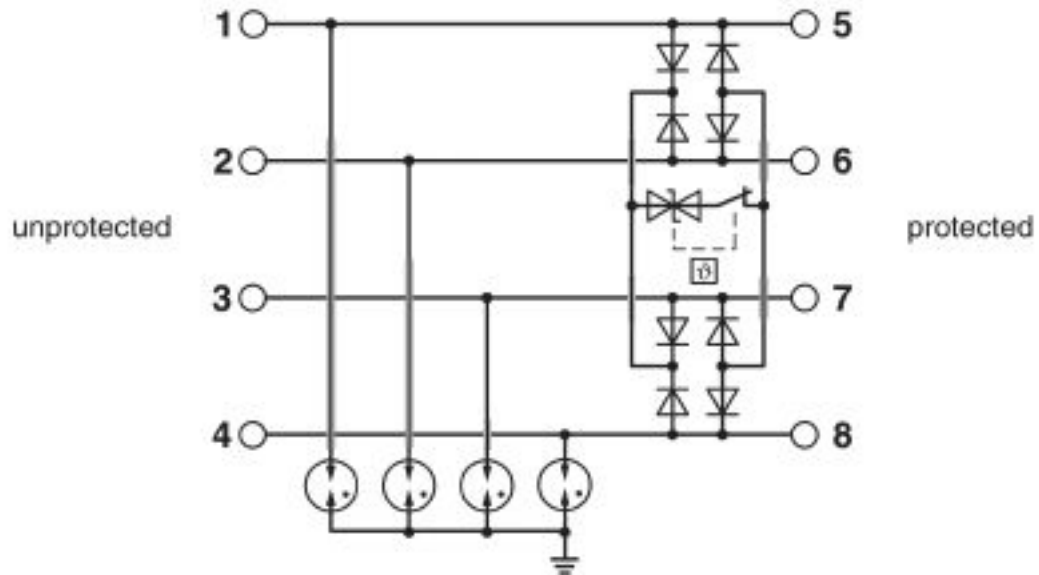


Pictogram



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Circuit diagram



## Classifications

### eCl@ss

eCl@ss 10.0.1	27130810
eCl@ss 8.0	27130809
eCl@ss 9.0	27130810

### ETIM

ETIM 5.0	EC000943
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## Approvals

### Approvals

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Approvals

UL Listed

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Ex Approvals

UL Listed / cUL Listed / cULus Listed

### Approval details

UL Listed		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 138168
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## Surge protection device - TTC-6P-4-24DC-UT-I - 1106013

### Accessories

#### Accessories

##### Labeled terminal marker

###### Zack Marker strip, flat - ZBF 6 CUS - 0825027



Zack Marker strip, flat, Strip, can be ordered: Strip, white, labeled according to customer specifications, mounting type: snap into flat marker groove, for terminal block width: 6.2 mm, lettering field size: 5.15 x 6.15 mm, Number of individual labels: 10

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###### Zack Marker strip, flat - ZBF 6,QR:FORTL.ZAHLEN - 0808765



Zack Marker strip, flat, Strip, white, labeled, Printed vertically: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 91 ... 100, mounting type: snap into flat marker groove, for terminal block width: 6.2 mm, lettering field size: 5.15 x 6.15 mm, Number of individual labels: 10

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##### Marker pen

###### Marker pen - X-PEN 0,35 - 0811228



Marker pen without ink cartridge, for manual labeling of markers, labeling extremely wipe-proof, line thickness 0.35 mm

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##### Terminal marking

###### Zack Marker strip, flat - ZBF 6:UNBEDRUCKT - 0808710



Zack Marker strip, flat, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snap into flat marker groove, for terminal block width: 6.2 mm, lettering field size: 5.15 x 6.15 mm, Number of individual labels: 10

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###### Zack Marker strip, flat - ZBF 6/WH-100:UNBEDRUCKT - 0808736



Zack Marker strip, flat, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snap into flat marker groove, for terminal block width: 6.2 mm, lettering field size: 5.15 x 6.15 mm, Number of individual labels: 10

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### Accessories

#### Additional products

Remote signaling set - TTC-6-FMRS-PT - 2907811



Module set for the optical monitoring and floating remote signaling of neighboring surge protective devices of the TERMITRAB complete product range.

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Shield connection - SSA 3-6 - 2839295



Shield fast connection for 3 ... 6 mm cable diameter. Potential connecting cable: 200 mm, 1 mm<sup>2</sup>, color: black

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Shield connection - SSA 5-10 - 2839512



Shield fast connection for 5 ... 10 mm cable diameter. Potential connecting cable: 200 mm, 1 mm<sup>2</sup>, color: black

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### Spare parts

Surge protection plug - TTC-6P-4-24DC-I-P - 1106015



Surge protection plug with integrated status indicator on the module for a 4-wire floating signal circuit with a high nominal current. Nominal voltage: 24 V DC

# Mouser Electronics

Authorized Distributor

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