

## Surge protection device - TTC-6-GDT-D-24AC-UT-I - 2906845

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Coarse surge protection with integrated status indicator for a 2-wire floating signal circuit.

### Your advantages

- ✓ Space-saving installation due to the narrow overall width of 6.2 mm
- ✓ Signaling without additional auxiliary power, thanks to the mechanical status indicator
- ✓ Optional remote signaling module monitors up to 40 items, without additional wiring
- ✓ Safe behavior in the event of overload, thanks to the integrated disconnect device
- ✓ Coarse surge protection by means of gas discharge tube



### Key Commercial Data

|                                      |                                                                                                         |
|--------------------------------------|---------------------------------------------------------------------------------------------------------|
| Packing unit                         | 1 pc                                                                                                    |
| GTIN                                 | <br>4 055626 137018 |
| GTIN                                 | 4055626137018                                                                                           |
| Weight per Piece (excluding packing) | 21.210 g                                                                                                |
| Custom tariff number                 | 85363010                                                                                                |
| Country of origin                    | Germany                                                                                                 |

### Technical data

#### Dimensions

|        |                                 |
|--------|---------------------------------|
| Height | 92 mm                           |
| Width  | 6.2 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 |
| 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 (with end cover)                  |

### General

|                                        |                            |
|----------------------------------------|----------------------------|
| Housing material                       | PBT                        |
| Flammability rating according to UL 94 | V-0                        |
| Color                                  | traffic grey A RAL 7042    |
| Mounting type                          | DIN rail: 35 mm            |
| Type                                   | DIN rail module, one-piece |
| Direction of action                    | Line-Earth Ground          |

### Protective circuit

|                                                           |                               |
|-----------------------------------------------------------|-------------------------------|
| IEC test classification                                   | C1                            |
|                                                           | C2                            |
|                                                           | C3                            |
|                                                           | D1                            |
| Nominal voltage $U_N$                                     | 24 V AC                       |
| Maximum continuous voltage $U_C$                          | 28 V DC                       |
|                                                           | 30 V AC                       |
| Rated current                                             | 1 A DC (60 °C)                |
|                                                           | 2 A AC (60 °C)                |
| Operating effective current $I_C$ at $U_C$                | ≤ 1 μA                        |
| Nominal discharge current $I_n$ (8/20) μs (line-line)     | 5 kA                          |
| Pulse discharge current $I_{imp}$ (10/350) μs (line-line) | 0.5 kA                        |
| Voltage protection level $U_p$ (line-line)                | ≤ 800 V (C1 - 2 kV)           |
|                                                           | ≤ 1 kV (C2 - 10 kV)           |
|                                                           | ≤ 800 V (C3 - 25 A)           |
|                                                           | ≤ 900 V (C3 - 100 A)          |
| Response time $t_A$ (line-line)                           | ≤ 100 ns                      |
| Input attenuation aE, sym.                                | typ. 0.3 dB (≤ 8 MHz / 150 Ω) |
|                                                           | typ. 0.3 dB (≤ 30 MHz / 50 Ω) |
| Cut-off frequency $f_g$ (3 dB), sym. in 50 Ohm system     | typ. 130 MHz                  |
| Cut-off frequency $f_g$ (3 dB), sym. in 150 Ohm system    | typ. 25 MHz                   |
| Capacity (line-line)                                      | 5 pF                          |
| Resistance per path                                       | ≤ 100 mΩ                      |
| Surge protection fault message                            | optical                       |
| Impulse durability (line-line)                            | C1 - 1 kA                     |
|                                                           | C2 - 5 kA                     |
|                                                           | C3 - 100 A                    |
|                                                           | D1 - 500 A                    |
| Pulse reset time (line-line)                              | ≤ 1 ms                        |

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### Technical data

#### 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

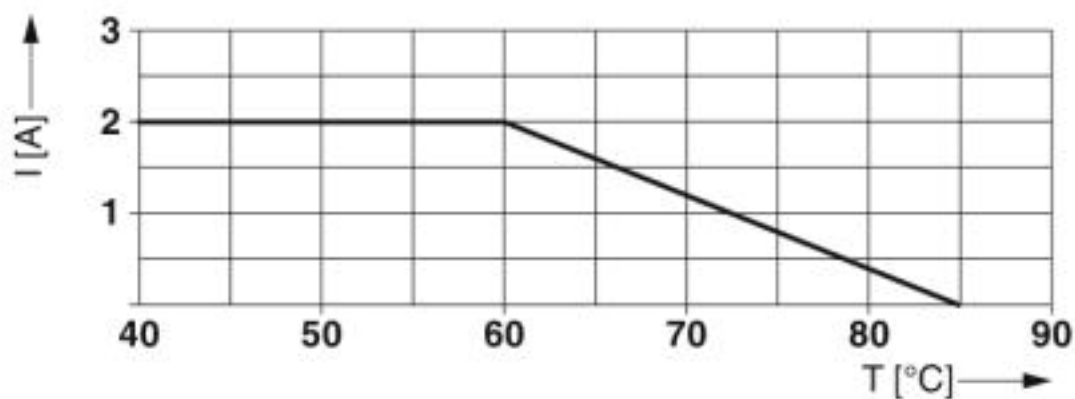
|                          |                                                                    |
|--------------------------|--------------------------------------------------------------------|
| Standards/specifications | IEC 61643-21 2000 + corrigendum 2001 + A1:2008, modified + A2:2012 |
|     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

#### Environmental Product Compliance

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

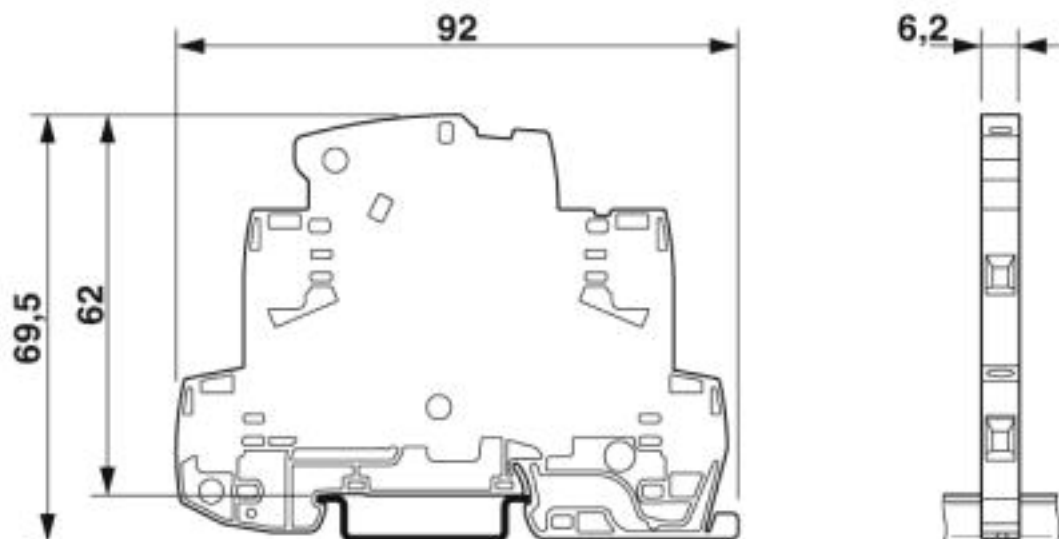
### Drawings

Diagram

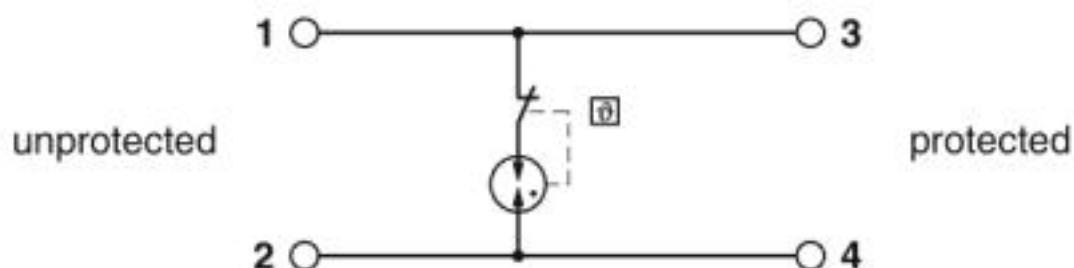


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Dimensional drawing



Circuit diagram



### Classifications

eCl@ss

|            |          |
|------------|----------|
| eCl@ss 4.0 | 27140201 |
| eCl@ss 4.1 | 27130801 |
| eCl@ss 5.0 | 27130801 |
| eCl@ss 5.1 | 27130801 |
| 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 |

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### Classifications

#### ETIM

|          |          |
|----------|----------|
| 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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DNV GL / CSA / UL Listed / CSAus / cCSAus

#### Ex Approvals

#### Approval details

|        |                                                                                     |                                                                                   |            |
|--------|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------|
| DNV GL |  | <a href="https://approvalfinder.dnvgl.com/">https://approvalfinder.dnvgl.com/</a> | TAE000027G |
|--------|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------|

|     |                                                                                     |                                                                                                                                         |          |
|-----|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|----------|
| CSA |  | <a href="http://www.csagroup.org/services-industries/product-listing/">http://www.csagroup.org/services-industries/product-listing/</a> | 70136717 |
|-----|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|----------|

|           |                                                                                     |                                                                                                                                                       |               |
|-----------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| 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 |
|-----------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|

|       |                                                                                     |                                                                                                                                         |          |
|-------|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|----------|
| CSAus |  | <a href="http://www.csagroup.org/services-industries/product-listing/">http://www.csagroup.org/services-industries/product-listing/</a> | 70136717 |
|-------|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|----------|

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### Approvals

cCSAus



### Accessories

#### Accessories

##### End block

End clamp - CLIPFIX 35-5 - 3022276



Quick mounting end clamp for NS 35/7,5 DIN rail or NS 35/15 DIN rail, with marking option, with parking option for FBS...5, FBS...6, KSS 5, KSS 6, width: 5.15 mm, color: gray

##### 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

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

##### 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

### Terminal marking

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### Accessories

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

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

### Additional products

Remote signaling set - TTC-6-FMRS-UT - 2907810



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

Cover - TTC-6-LCP - 2908729



End cover for terminating a row of TERMITRAB complete TTC-6... terminal blocks

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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### Accessories

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