

# TTC-6-GDT-D-60AC-PT-I - Surge protection device



2906863

<https://www.phoenixcontact.com/pc/products/2906863>

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

## Your advantages

- Space-saving and cost-saving with a narrow overall width of just 6 mm
- Continuous monitoring of protective devices, plus mechanical status indicator with optional remote signaling
- Finding the right product for all possible requirements in MCR applications is easy, thanks to the complete range of products with customized features

## Commercial data

|                                      |                     |
|--------------------------------------|---------------------|
| Item number                          | 2906863             |
| Packing unit                         | 1 pc                |
| Minimum order quantity               | 1 pc                |
| Product key                          | CL2265              |
| Catalog page                         | Page 151 (C-4-2019) |
| GTIN                                 | 4055626137186       |
| Weight per piece (including packing) | 25.5 g              |
| Weight per piece (excluding packing) | 20.5 g              |
| Customs tariff number                | 85363010            |
| Country of origin                    | DE                  |

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## Technical data

### Product properties

|                                |                                     |
|--------------------------------|-------------------------------------|
| Product type                   | Surge protection for MCR technology |
| Product family                 | TERMITRAB complete                  |
| IEC test classification        | C1                                  |
|                                | C2                                  |
|                                | C3                                  |
|                                | D1                                  |
| Type                           | DIN rail module, one-piece          |
| Surge protection fault message | optical                             |
| Wire pairs per module          | 1                                   |

### Data management status

|                  |    |
|------------------|----|
| Article revision | 08 |
|------------------|----|

### Insulation characteristics

|                      |     |
|----------------------|-----|
| Overvoltage category | III |
| Pollution degree     | 2   |

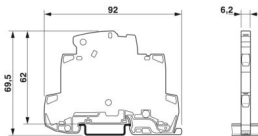
### Electrical properties

|                       |         |
|-----------------------|---------|
| Nominal voltage $U_N$ | 60 V AC |
|-----------------------|---------|

### Connection data

|                                  |                                             |
|----------------------------------|---------------------------------------------|
| Connection method                | Push-in connection                          |
| Conductor cross section flexible | 0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> |
| Conductor cross section rigid    | 0.2 mm <sup>2</sup> ... 4 mm <sup>2</sup>   |
| Conductor cross section AWG      | 24 ... 12                                   |

### Dimensions

|                     |                                                                                      |
|---------------------|--------------------------------------------------------------------------------------|
| Dimensional drawing |  |
| Width               | 6.2 mm                                                                               |
| Height              | 92 mm                                                                                |
| Depth               | 69.5 mm (incl. DIN rail 7.5 mm)                                                      |

### Material specifications

|                                        |                 |
|----------------------------------------|-----------------|
| Color                                  | gray (RAL 7042) |
| Flammability rating according to UL 94 | V-0             |
| Insulating material                    | PBT             |
| Housing material                       | PBT             |

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## Mechanical properties

### Mechanical data

|                 |     |
|-----------------|-----|
| Open side panel | Yes |
|-----------------|-----|

## Protective circuit

|                                                                |                                         |
|----------------------------------------------------------------|-----------------------------------------|
| Direction of action                                            | Line-Line                               |
| Maximum continuous voltage $U_C$                               | 75 V AC                                 |
| Rated current                                                  | 2 A (60 °C)                             |
| Operating effective current $I_C$ at $U_C$                     | $\leq 1 \mu A$                          |
| Nominal discharge current $I_n$ (8/20) $\mu s$ (line-line)     | 5 kA                                    |
| Pulse discharge current $I_{imp}$ (10/350) $\mu s$ (line-line) | 0.5 kA                                  |
| Voltage protection level $U_p$ (line-line)                     | $\leq 800 V$ (C1 - 2 kV)                |
|                                                                | $\leq 1 kV$ (C2 - 10 kV)                |
|                                                                | $\leq 800 V$ (C3 - 25 A)                |
|                                                                | $\leq 900 V$ (C3 - 100 A)               |
| Response time $t_A$ (line-line)                                | $\leq 100 ns$                           |
| Input attenuation aE, sym.                                     | typ. 0.3 dB ( $\leq 8 MHz/150 \Omega$ ) |
|                                                                | typ. 0.3 dB ( $\leq 30 MHz/50 \Omega$ ) |
| Cut-off frequency $f_g$ (3 dB), sym. in 50 $\Omega$ system     | typ. 130 MHz                            |
| Cut-off frequency $f_g$ (3 dB), sym. in 150 $\Omega$ system    | typ. 25 MHz                             |
| Capacity (Core-Core)                                           | 5 pF                                    |
| Resistance per path                                            | $\leq 100 m\Omega$                      |
| 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)                                   | $\leq 1 ms$                             |

## Environmental and real-life conditions

### Ambient conditions

|                                         |                       |
|-----------------------------------------|-----------------------|
| Degree of protection                    | IP20 (with end cover) |
| Ambient temperature (operation)         | -40 °C ... 85 °C      |
| Ambient temperature (storage/transport) | -40 °C ... 85 °C      |
| Altitude                                | $\leq 4000 m$ (amsl)  |
| Permissible humidity (operation)        | 5 % ... 95 %          |

## Standards and regulations

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

### EN 61643-21

|                          |             |
|--------------------------|-------------|
| Standards/specifications | EN 61643-21 |
|--------------------------|-------------|

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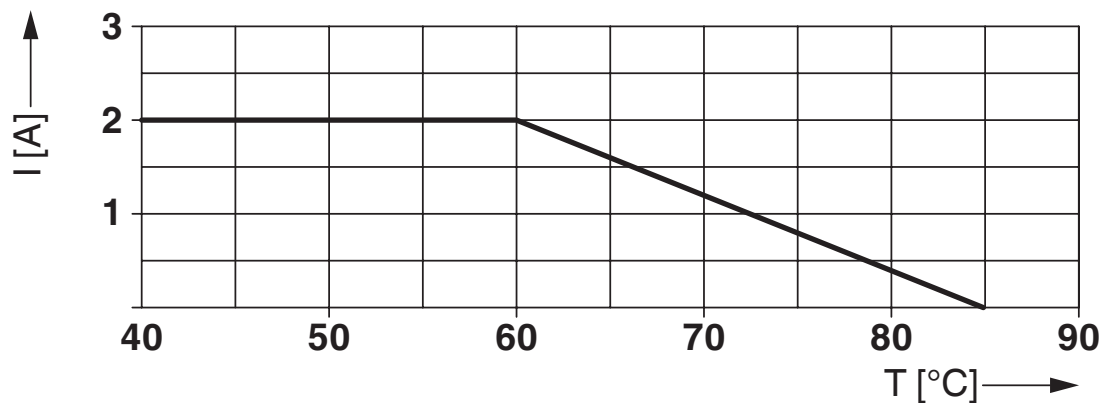
|      |                          |
|------|--------------------------|
| Note | 2001 + A1:2009 + A2:2013 |
|------|--------------------------|

## Mounting

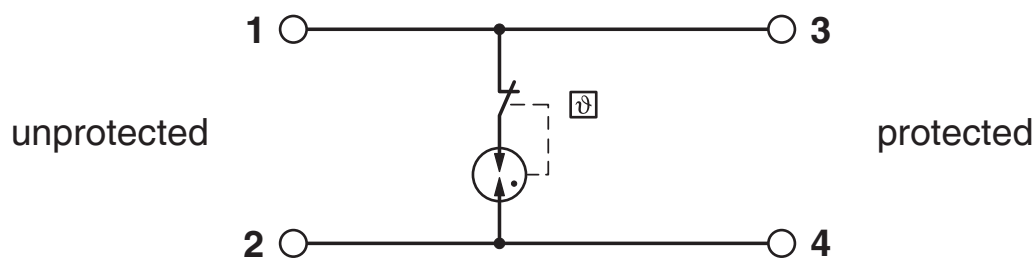
|               |                 |
|---------------|-----------------|
| Mounting type | DIN rail: 35 mm |
| Thread type   | ()              |

## Drawings

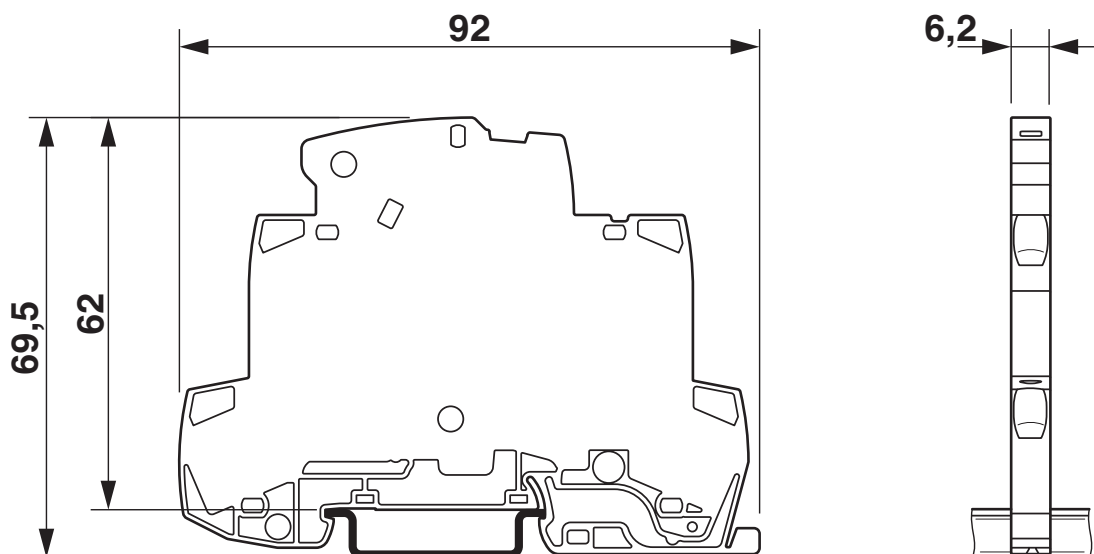
Diagram



Circuit diagram



Dimensional drawing



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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/pc/products/2906863>



**CSA**

Approval ID: 70136717



**DNV GL**

Approval ID: TAE000027G



**UL Listed**

Approval ID: FILE E 138168



**CSAus**

Approval ID: 70136717

**UAE-RoHS**

Approval ID: 22-06-16192

**Functional Safety**

Approval ID: 16-06-072 R024 V2R0

**cCSAus**

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## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-11.0 | 27130807 |
| ECLASS-13.0 | 27171501 |

### ETIM

|          |          |
|----------|----------|
| ETIM 9.0 | EC000943 |
|----------|----------|

### UNSPSC

|             |          |
|-------------|----------|
| UNSPSC 21.0 | 39121600 |
|-------------|----------|

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## Environmental product compliance

|                                         |                                          |
|-----------------------------------------|------------------------------------------|
| EU RoHS                                 |                                          |
| Fulfills EU RoHS substance requirements | Yes, No exemptions                       |
| China RoHS                              |                                          |
| Environment friendly use period (EFUP)  | EFUP-E                                   |
|                                         | No hazardous substances above the limits |
| EU REACH SVHC                           |                                          |
| REACH candidate substance (CAS No.)     | No substance above 0.1 wt%               |

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## Accessories

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

0825027

<https://www.phoenixcontact.com/pc/products/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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### ZBF 6:UNBEDRUCKT - Zack Marker strip, flat

0808710

<https://www.phoenixcontact.com/pc/products/0808710>



Zack Marker strip, flat, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: latching, 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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## ZBF 6/WH-100:UNBEDRUCKT - Zack Marker strip, flat

0808736

<https://www.phoenixcontact.com/pc/products/0808736>



Zack Marker strip, flat, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: latching, for terminal block width: 6.2 mm, lettering field size: 5.15 x 6.15 mm, Number of individual labels: 1000

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

0808765

<https://www.phoenixcontact.com/pc/products/0808765>



Zack Marker strip, flat, Strip, white, labeled, Printed vertically: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 91 ... 100, mounting type: latching, 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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## CLIPFIX 35-5 - End bracket

3022276

<https://www.phoenixcontact.com/pc/products/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

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

2907811

<https://www.phoenixcontact.com/pc/products/2907811>



Module set for the optical monitoring and floating remote signaling of adjacent surge protective devices in the TERMITRAB complete or CLIXTRAB product family. Suitable for directly grounded DIN rails.

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<https://www.phoenixcontact.com/pc/products/2906863>

## TTC-6-LCP - Cover

2908729

<https://www.phoenixcontact.com/pc/products/2908729>



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

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## SSA 3-6 - Shield connection

2839295

<https://www.phoenixcontact.com/pc/products/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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<https://www.phoenixcontact.com/pc/products/2906863>

## SSA 5-10 - Shield connection

2839512

<https://www.phoenixcontact.com/pc/products/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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## X-PEN 0,35 - Marker pen

0811228

<https://www.phoenixcontact.com/pc/products/0811228>



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

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