

# C-TV-SAT - Surge protection device



2856993

<https://www.phoenixcontact.com/us/products/2856993>

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Attachment plug with surge protection for antenna inputs with F connector

## Your advantages

- No signal interference with optimum transmission properties
- Space-saving, thanks to the compact design
- Ideal addition to the C-SAT-Box for direct end-device protection

## Commercial data

|                                      |               |
|--------------------------------------|---------------|
| Item number                          | 2856993       |
| Packing unit                         | 1 pc          |
| Minimum order quantity               | 1 pc          |
| Sales key                            | CL25          |
| Product key                          | CL3314        |
| GTIN                                 | 4017918915179 |
| Weight per piece (including packing) | 73 g          |
| Weight per piece (excluding packing) | 49.66 g       |
| Customs tariff number                | 85363010      |
| Country of origin                    | DE            |

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## Technical data

### Product properties

|                                |  |
|--------------------------------|--|
| Product type                   | Surge protection for transceiver systems |
| IEC test classification        | C1                                       |
|                                | C2                                       |
|                                | C3                                       |
|                                | D1                                       |
| Type                           | Intermediate plug                        |
| Number of positions            | 1  |
| Surge protection fault message | none                                     |

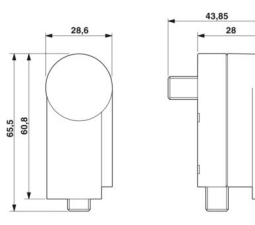
### Insulation characteristics

|                      |    |
|----------------------|----|
| Overvoltage category | II |
| Pollution degree     | 2  |

### Connection data

|                   |             |
|-------------------|-------------|
| Connection method | F connector |
|-------------------|-------------|

### Dimensions

|                     |  |
|---------------------|--|
| Dimensional drawing |  |
| Width               | 28 mm  |
| Height              | 44 mm  |
| Depth               | 66 mm  |

### Material specifications

|  |                  |
|--|------------------|
| Color                                  | black (RAL 9005) |
| Flammability rating according to UL 94 | V-0              |
| Housing material                       | PA 6.6           |

### Mechanical properties

#### Mechanical data

|                 |    |
|-----------------|----|
| Open side panel | No |
|-----------------|----|

### Protective circuit

|  |                          |
|--|--------------------------|
| Direction of action                        | Line-Shield/Earth Ground |
| Maximum continuous operating voltage $U_C$ | 24 V DC                  |
| Rated current                              | 1.5 A (25 °C)            |

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|   |  |
|---|--|
| Operating effective current $I_C$ at $U_C$                            | $\leq 1 \mu\text{A}$   |
| Protective conductor current $I_{PE}$                                 | $\leq 1 \mu\text{A}$   |
| Nominal discharge current $I_n$ (8/20) $\mu\text{s}$ (line-shield)    | 2.5 kA   |
| Pulse discharge current $I_{imp}$ (10/350) $\mu\text{s}$              | 0.5 kA   |
| Nominal pulse current $I_{an}$ (10/1000) $\mu\text{s}$ (line-shield)  | 120 A  |
| Output voltage limitation at 1 kV/ $\mu\text{s}$ (line-shield) spike  | $\leq 600 \text{ V}$   |
| Output voltage limitation at 1 kV/ $\mu\text{s}$ (line-shield) static | $\leq 600 \text{ V}$   |
| Residual voltage at $I_n$ (conductor-shield)                          | $\leq 30 \text{ V}$  |
| Voltage protection level $U_p$ (line-shield)                          | $\leq 700 \text{ V}$ (C2 - 4 kV / 2 kA)<br>$\leq 800 \text{ V}$ (C2 - 5 kV/2,5 kA) |
| Response time $t_A$ (line-shield)                                     | $\leq 100 \text{ ns}$  |
| Input attenuation $a_E$ , asym.                                       | typ. 0.5 dB ( $\leq 2.4 \text{ GHz} / 75 \Omega$ )                                 |
| Cut-off frequency $f_g$ (3 dB), asym. (shield) in 75 $\Omega$ system  | > 3 GHz  |
| Frequency range   | 4.7 MHz ... 2.5 GHz  |
| Capacity asymmetrical (shield)  | typ. 10 pF   |
| Surge protection fault message  | none   |
| Impulse durability (line-shield)                                      | C2 - 4 kV/2 kA<br>C2 - 5 kV / 2.5 kA<br>C3 - 100 A<br>D1 - 500 A                   |
| Alternating current carrying capacity (line-shield)                   | 5 A - 1 s  |
| Pulse reset time (line-shield)  | < 3 s  |

## Environmental and real-life conditions

### Ambient conditions

|                                 |                              |
|---------------------------------|------------------------------|
| Degree of protection            | IP20                         |
| Ambient temperature (operation) | -25 °C ... 75 °C             |
| Altitude                        | $\leq 2000 \text{ m}$ (amsl) |

## Standards and regulations

|                          |              |
|--------------------------|--------------|
| Standards/specifications | IEC 61643-21 |
| Note                     | 2012         |
| Standards/specifications | EN 61643-21  |
| Note                     | 2013         |
| Standards/specifications | EN 50083     |
| Note                     | CLASS-A      |

## Mounting

|               |   |
|---------------|---|
| Mounting type | Connection-specific intermediate plugging |
|---------------|---|

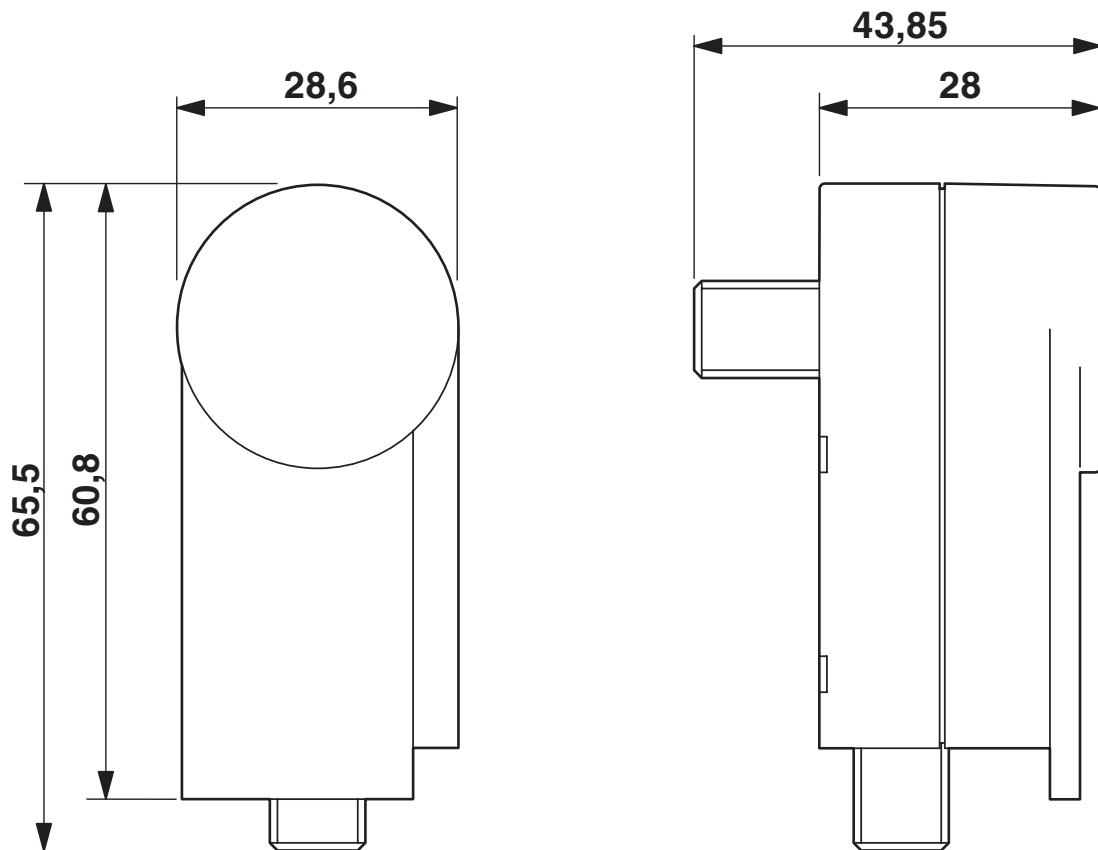
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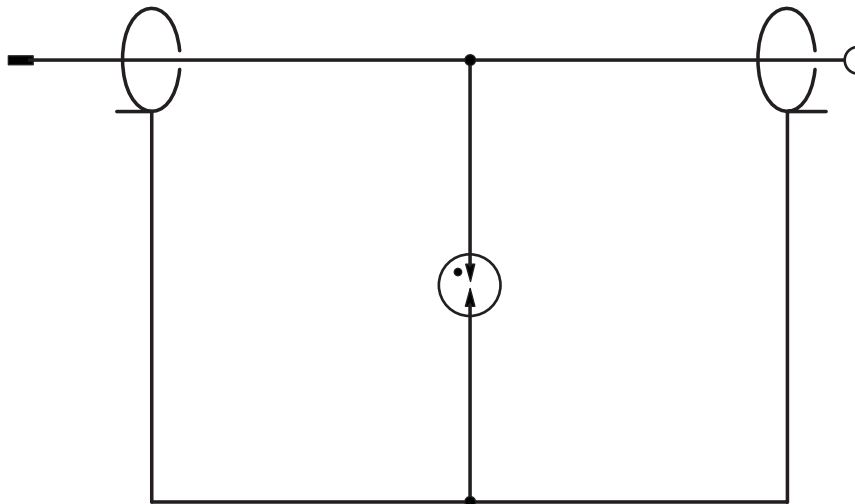
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## Drawings

Dimensional drawing



Circuit diagram



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## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-13.0 | 27171504 |
| ECLASS-15.0 | 27171504 |

### ETIM

|           |          |
|-----------|----------|
| ETIM 10.0 | EC001466 |
|-----------|----------|

### UNSPSC

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

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## Environmental product compliance

### EU RoHS

|   |      |
|---|------|
| Fulfills EU RoHS substance requirements | Yes  |
| Exemption                               | 6(c) |

### China RoHS

|  |   |
|--|---|
| Environment friendly use period (EFUP) | EFUP-50   |
|  | An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required. |

### EU REACH SVHC

|                                     |                                      |
|-------------------------------------|--------------------------------------|
| REACH candidate substance (CAS No.) | Lead(CAS: 7439-92-1)                 |
| SCIP                                | b6820344-b092-42af-940b-c764b4ec8cc3 |

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