

# 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              |
| Catalog page                         | Page 205 (C-4-2019) |
| 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

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

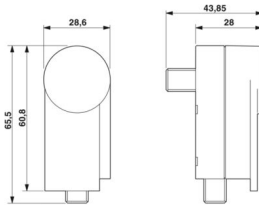
### Insulation characteristics

|                      |    |
|----------------------|----|
| 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 voltage $U_C$ | 24 V DC                  |
| Rated current                    | 1.5 A (25 °C)            |

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|                                                                      |                                              |
|----------------------------------------------------------------------|----------------------------------------------|
| Operating effective current $I_C$ at $U_C$                           | $\leq 1 \mu A$                               |
| Residual current $I_{PE}$                                            | $\leq 1 \mu A$                               |
| Nominal discharge current $I_n$ (8/20) $\mu s$ (line-shield)         | 2.5 kA                                       |
| Pulse discharge current $I_{imp}$ (10/350) $\mu s$                   | 0.5 kA                                       |
| Nominal pulse current $I_{an}$ (10/1000) $\mu s$ (line-shield)       | 120 A                                        |
| Output voltage limitation at 1 kV/ $\mu s$ (line-shield) spike       | $\leq 600 V$                                 |
| Output voltage limitation at 1 kV/ $\mu s$ (line-shield) static      | $\leq 600 V$                                 |
| Residual voltage at $I_n$ (conductor-shield)                         | $\leq 30 V$                                  |
| Voltage protection level $U_p$ (line-shield)                         | $\leq 700 V$ (C2 - 4 kV / 2 kA)              |
|                                                                      | $\leq 800 V$ (C2 - 5 kV/2,5 kA)              |
| Response time $t_A$ (line-shield)                                    | $\leq 100 ns$                                |
| Input attenuation $aE$ , asym.                                       | typ. 0.5 dB ( $\leq 2.4 GHz$ / 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                               |
|                                                                      | C2 - 5 kV / 2.5 kA                           |
|                                                                      | C3 - 100 A                                   |
|                                                                      | 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                        | $\leq 2000 m$ (amsl) |

## Standards and regulations

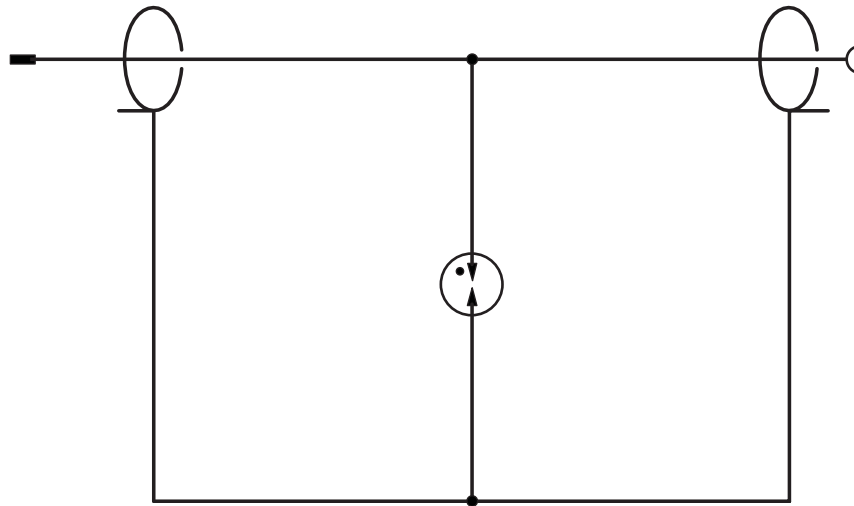
|                          |              |
|--------------------------|--------------|
| Standards/specifications | IEC 61643-21 |
| Note                     | 2012         |
| Standards/specifications | EN 61643-21  |
| Note                     | 2013         |
| Standards/specifications | EN 50083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

## Mounting

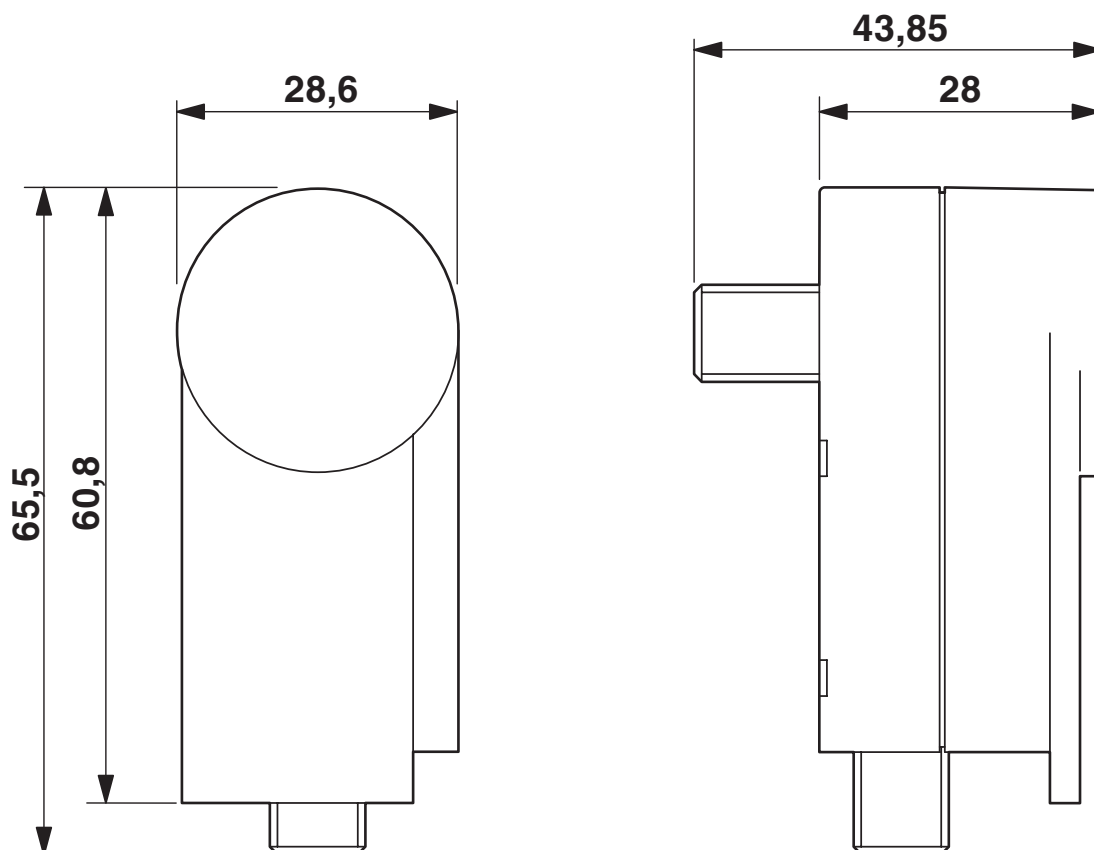
|               |                                           |
|---------------|-------------------------------------------|
| Mounting type | Connection-specific intermediate plugging |
|---------------|-------------------------------------------|

## Drawings

Circuit diagram



Dimensional drawing



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## Approvals

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**EAC**

Approval ID: RU C-DE.\*09.B.00169

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## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-11.0 | 27130807 |
| ECLASS-13.0 | 27171504 |

### ETIM

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

### UNSPSC

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

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## Environmental product compliance

|            |                                                                                                              |
|------------|--------------------------------------------------------------------------------------------------------------|
| REACH SVHC | Lead 7439-92-1                                                                                               |
| China RoHS | Environmentally Friendly Use Period = 50 years                                                               |
|            | For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads" |

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