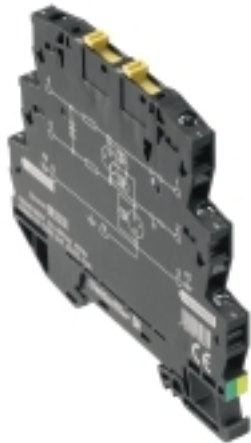


# VSSC

## VSSC6TRCLFG12VDC0.5A

**Weidmüller Interface GmbH & Co. KG**  
 Klingenbergstraße 26  
 D-32758 Detmold  
 Germany  
 Fon: +49 5231 14-0  
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[www.weidmueller.com](http://www.weidmueller.com)



Similar to illustration

Overvoltage coupling along the conductor path may disturb or destroy sensitive signal inputs. It is important to provide protection in the immediate vicinity of I&C devices. Weidmüller's broad product range for the I&C sector offers products in a 2-piece, pluggable design and modular terminals for tension clamp or screw connection. These products are suitable for both binary and analogue signals. Weidmüller also offers other designs with integrated components such as gas discharge tubes or varistors. VARITECTOR stands for flexible and variable surge protection by Weidmüller, tested according to product standard IEC61643-21. The VARITECTOR series can be used in applications according to IEC 61643-22 / VDE 0845-3 for classes C1, C2, C3 and D1. The VARITECTOR SPC, SSC and MCZ OVP product families optimally combine electrical and mechanical properties. Size and easy handling play an important role. This surge protection is suited for confined spaces in industrial and process automation as well as in building automation applications.



### General ordering data

|            |                                                                                               |
|------------|-----------------------------------------------------------------------------------------------|
| Type       | VSSC6TRCLFG12VDC0.5A                                                                          |
| Order No.  | <a href="#">1064300000</a>                                                                    |
| Version    | Surge protection for instrumentation and control, 12 V, 500 mA, IEC 61643-21, HART-compatible |
| GTIN (EAN) | 4032248829668                                                                                 |
| Qty.       | 10 pc(s).                                                                                     |

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**Technical data**
**Dimensions and weights**

|            |         |                 |            |
|------------|---------|-----------------|------------|
| Width      | 6.2 mm  | Width (inches)  | 0.244 inch |
| Height     | 88.5 mm | Height (inches) | 3.484 inch |
| Depth      | 81 mm   | Depth (inches)  | 3.189 inch |
| Net weight | 44 g    |                 |            |

**Temperatures**

|                             |                |                             |                |
|-----------------------------|----------------|-----------------------------|----------------|
| Humidity                    | 5...96 %       | Operating temperature, max. | 70 °C          |
| Operating temperature, min. | -40 °C         | Storage temperature, max.   | 80 °C          |
| Storage temperature, min.   | -40 °C         | Operating temperature       | -40 °C...70 °C |
| Storage temperature         | -40 °C...80 °C |                             |                |

**Probability of failure**

|                                   |      |      |             |
|-----------------------------------|------|------|-------------|
| $\lambda_{ges}$                   | 29   | MTTF | 3,936 Jahre |
| PFH in $1 \cdot 10^{-9}$ per hour | 1.95 | SFF  | 93.28 %     |
| SIL in compliance with IEC 61508  | 3    |      |             |

**Environmental Product Compliance**

|            |                |
|------------|----------------|
| REACH SVHC | Lead 7439-92-1 |
|------------|----------------|

**Rated data UL**

|                      |         |                |               |
|----------------------|---------|----------------|---------------|
| Certificate No. (UL) | E311081 | UL certificate | UL Zertifikat |
|----------------------|---------|----------------|---------------|

**CSA protection data**

|                                 |           |                               |        |
|---------------------------------|-----------|-------------------------------|--------|
| Gas group C                     | IIB       | Gas group D                   | IIA    |
| Gas groups A, B                 | IIC       | Input current, max. $I_i$     | 500 mA |
| Input voltage, max. $U_i$       | 15 V      | Internal capacity, max. $C_i$ | 1 nF   |
| Internal inductance, max. $L_i$ | 0 $\mu$ H |                               |        |

**General data**

|                           |                                       |                          |                                                                          |
|---------------------------|---------------------------------------|--------------------------|--------------------------------------------------------------------------|
| Colour                    | black                                 | Design                   | Terminal                                                                 |
| Isolating function        | Yes                                   | Optical function display | No                                                                       |
| Protection degree         | IP20                                  | Rail                     | TS 35                                                                    |
| Segment                   | Measurement - Monitoring<br>- Setting | Testing option           | Functional screw with<br>test plug receptacle,<br>connections 1, 2, 4, 5 |
| UL 94 flammability rating | V-0                                   | Version                  | Surge protection for<br>measurement and control                          |

**Insulation coordination acc. to EN 50178**

|                    |   |                        |     |
|--------------------|---|------------------------|-----|
| Pollution severity | 2 | Surge voltage category | III |
|--------------------|---|------------------------|-----|

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## Technical data

### Rated data IEC / EN

|                                                   |                                         |                                                            |                               |
|---------------------------------------------------|-----------------------------------------|------------------------------------------------------------|-------------------------------|
| Rated voltage (DC)                                | 12 V                                    | Voltage type                                               | DC                            |
| Max. continuous voltage, $U_c$ (DC)               | 15 V                                    | Discharge current, max. (8/20 $\mu$ s)                     | 10 kA                         |
| Discharge current $I_n$ (8/20 $\mu$ s) wire-PE    | 2.5 kA                                  | Discharge current $I_{max}$ (8/20 $\mu$ s) wire-PE         | 5 kA                          |
| Discharge current $I_n$ (8/20 $\mu$ s) wire-wire  | 2.5 kA                                  | Discharge current $I_{max}$ (8/20 $\mu$ s) wire-wire       | 5 kA                          |
| Lightning test current $I_{imp}$ (10/350 $\mu$ s) | 0.5 kA                                  | Lightning test current, $I_{imp}$ (10/350 $\mu$ s) Wire-PE | 0.5 kA                        |
| Fuse                                              | 0.5 A                                   | Standards                                                  | IEC 61643-21, HART-compatible |
| Protection level $U_p$ (typ.)                     | $\leq 1.7$ kV                           | Protection level on output side Wire-wire                  | 1 kV/ $\mu$ s, typically      |
| Protection level, $U_p$ GND - PE                  | 800 V                                   | Dielectric strength at FG against PE                       | $\geq 500$ V                  |
| Insertion loss                                    | 250 MHz                                 | Number of poles                                            | 1                             |
| Overload - failure mode                           | Modus 2                                 | Protection level, $U_p$ wire - wire                        | 35 V                          |
| Pulse-reset capacity                              | $\leq 20$ ms                            | Rated current $I_N$                                        | 500 mA                        |
| Requirements category acc. to IEC 61643-21        | C2, C3, D1                              | Signal transmission properties (-3 dB)                     | 270 MHz                       |
| Surge current-carrying capacity C2                | 2.5 kA 8/20 $\mu$ s 5 kV 1.2/50 $\mu$ s | Surge current-carrying capacity C3                         | 50 A 10/1000 $\mu$ s          |
| Surge current-carrying capacity D1                | 0.5 kA 10/350 $\mu$ s                   | Volume resistance                                          | 1.8 $\Omega$ 10 %             |

### Further details of approvals

|                  |                 |
|------------------|-----------------|
| GOST certificate | GOST-Zertifikat |
|------------------|-----------------|

### Connection data

|                                                            |                   |                                                            |                     |
|------------------------------------------------------------|-------------------|------------------------------------------------------------|---------------------|
| Type of connection                                         | Screw connection  | Tightening torque, min.                                    | 0.5 Nm              |
| Tightening torque, max.                                    | 0.8 Nm            | Clamping range, min.                                       | 0.5 mm <sup>2</sup> |
| Clamping range, max.                                       | 4 mm <sup>2</sup> | Wire cross-section, solid, min.                            | 0.5 mm <sup>2</sup> |
| Wire cross-section, solid, max.                            | 6 mm <sup>2</sup> | Conductor cross-section, flexible, AEH (DIN 46228-1), min. | 0.5 mm <sup>2</sup> |
| Conductor cross-section, flexible, AEH (DIN 46228-1), max. | 4 mm <sup>2</sup> | Connection cross-section, stranded, min.                   | 0.5 mm <sup>2</sup> |
| Connection cross-section, stranded, max.                   | 4 mm <sup>2</sup> |                                                            |                     |

### Classifications

|             |             |            |             |
|-------------|-------------|------------|-------------|
| ETIM 6.0    | EC000943    | ETIM 7.0   | EC000943    |
| eClass 9.0  | 27-13-08-07 | eClass 9.1 | 27-13-08-07 |
| eClass 10.0 | 27-13-08-07 | UNSPSC     | 30-21-19-21 |

### Approvals

Approvals



ROHS Conform

### VSSC VSSC6TRCLFG12VDC0.5A

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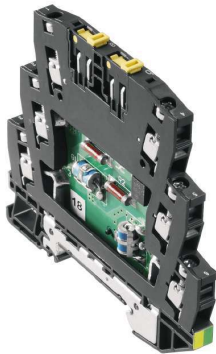
### Downloads

|                                             |                                                                                                    |
|---------------------------------------------|----------------------------------------------------------------------------------------------------|
| Approval/Certificate/Document of Conformity | <a href="#">SIL Paper</a><br><a href="#">CE PAPER</a><br><a href="#">Declaration of Conformity</a> |
| Brochure/Catalogue                          | <a href="#">CAT 4.4 ELECTR 16/17 EN</a>                                                            |
| Engineering Data                            | <a href="#">EPLAN, WSCAD</a>                                                                       |
| Engineering Data                            | <a href="#">STEP</a>                                                                               |
| User Documentation                          | <a href="#">Instruction sheet VSSC</a>                                                             |

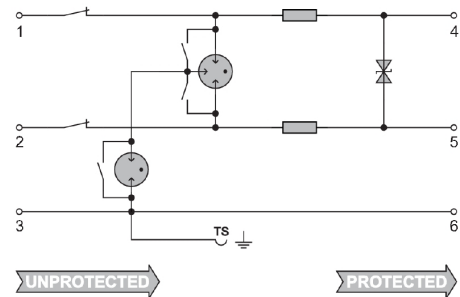
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## Drawings



Similar to illustration



Circuit diagram

