

## VSSC4 CL FG 48VAC/DC EX

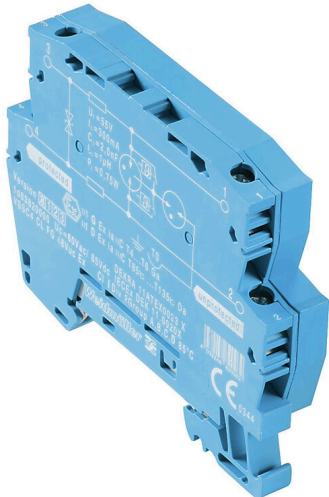
**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

[www.weidmueller.com](http://www.weidmueller.com)



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

|            |   |
|------------|---|
| Version    | Surge protection for instrumentation and control,<br>Surge protection for measurement and control |
| Order No.  | <a href="#">1063820000</a>  |
| Type       | VSSC4 CL FG 48VAC/DC EX   |
| GTIN (EAN) | 4032248829262   |
| Qty.       | 5 items   |

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Technical data

Approvals

Approvals



ROHS Conform

Dimensions and weights

|            |         |                |             |
|------------|---------|----------------|-------------|
| Width      | 12.4 mm | Width (inches) | 0.4882 inch |
| Net weight | 35.02 g |                |             |

Temperatures

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

Probability of failure

|                                    |         |      |        |
|------------------------------------|---------|------|--------|
| SIL in compliance with IEC 61508   | 3       | MTTF | 3936 a |
| SFF                                | 93.28 % | λges | 29     |
| PFH in 1*10 <sup>-9</sup> per hour | 1.95    |      |        |

Environmental Product Compliance

|                                      |                                      |
|--------------------------------------|--------------------------------------|
| RoHS Compliance Status               | Compliant with exemption             |
| RoHS Exemption (if applicable/known) | 7a, 7cl                              |
| REACH SVHC                           | Lead 7439-92-1                       |
| SCIP                                 | 71e97bb7-979f-4330-94c0-20c629bb05e3 |

Protection Ex - Data

|   |  |   |                              |
|---|--|---|------------------------------|
| ATEX - dust labelling                             | II 1 D Ex ia III C T135 °C ... T85 °C Da | ATEX - gas labelling                              | II 1 G Ex ia IIC T4... T6 Ga |
| IECEx - dust labelling                            | II 1 D Ex ia III C T135 °C ... T85 °C Da | IECEx - gas labelling                             | II 1 G Ex ia IIC T4... T6 Ga |
| Input power, max. PI                              | 0.75 W                                   | Internal capacity, max. CI                        | 1 nF                         |
| Internal inductance, max. LI                      | 0 µH                                     | Temperature class T4/135°C (-40°C ... +120 °C) li | 300 mA                       |
| Temperature class T5/100°C (-40 °C ... +85 °C) li | 300 mA                                   | Temperature class T6/85 °C (-40 °C ... +70 °C) li | 300 mA                       |

CSA protection data

|                              |        |                            |      |
|------------------------------|--------|----------------------------|------|
| Gas group D                  | IIA    | Gas groups A, B            | IIC  |
| Input-current, max. II       | 300 mA | Gas group C                | IIB  |
| Internal inductance, max. LI | 0 µH   | Internal capacity, max. CI | 1 nF |

General data

|                          |  |               |                                    |
|--------------------------|--|---------------|------------------------------------|
| Optical function display | No   | Segment       | Measurement - Monitoring - Setting |
| Version                  | Surge protection for measurement and control | Colour        | Light Blue                         |
| Protection degree        | IP20   | Mounting rail | TS 35                              |
| Isolating function       | No   |               |                                    |

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## Technical data

### Insulation coordination acc. to EN 50178

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

### Rated data IEC / EN

|   |                 |  |                                  |
|---|-----------------|--|----------------------------------|
| Number of poles                                       | 1               | Rated voltage (AC)                                   | 48 V                             |
| Rated current I <sub>N</sub>                          | 300 mA          | Volume resistance                                    | 1.8 Ω 10 %                       |
| Lightning test current I <sub>imp</sub> (10/350 μs)   | 0.5 kA          | Discharge current, max. (8/20 μs)                    | 10 kA                            |
| Dielectric strength at FG against PE                  | ≥ 500 V         | Surge current-carrying capacity D1                   | 0.5 kA 10/350 μs                 |
| Surge current-carrying capacity C3                    | 50 A 10/1000 μs | Pulse-reset capacity                                 | ≤ 15 ms                          |
| Signal transmission properties (-3 dB)                | 5 Mhz           | Lightning test current, I <sub>imp</sub> (10/350 μs) | 0.5 kA                           |
| Overload - failure mode                               | Modus 2         | Wire-PE  |                                  |
| Discharge current I <sub>n</sub> (8/20μs) wire-wire   | 2.5 kA          | Rated load current I <sub>L</sub>                    | 300 mA                           |
| Discharge current I <sub>max</sub> (8/20μs) wire-wire | 5 kA            | Discharge current I <sub>max</sub> (8/20μs) wire-PE  | 5 kA                             |
|   |                 | Surge current-carrying capacity C2                   | 2.5 kA 8/20 μs 5 kV<br>1.2/50 μs |

### Further details of approvals

|                  |  |
|------------------|--|
| GOST certificate | GOST-Zertifikat -<br>PDF/7950_n1-n4.pdf<br>(application/pdf) |
|------------------|--|

### Connection data

|  |                     |  |                   |
|--|---------------------|--|-------------------|
| Stripping length   | 10 mm               | 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> |

### General data

|                 |            |                   |      |
|-----------------|------------|-------------------|------|
| Number of poles | 1          | Protection degree | IP20 |
| Colour          | Light Blue |                   |      |

### Ratings IECEx/ATEX/cUL

|                        |  |                       |                              |
|------------------------|--|-----------------------|------------------------------|
| ATEX - dust labelling  | II 1 D Ex ia IIIC T135 °C ...<br>T85 °C Da               | ATEX - gas labelling  | II 1 G Ex ia IIC T4... T6 Ga |
| ATEX certificate       | ATEX Certificate   | IEC Ex certificate    | IECEX Zertifikat             |
| IECEX - dust labelling | II 1 D Ex ia IIIC T135 °C ...<br>T85 °C Da               | IECEX - gas labelling | II 1 G Ex ia IIC T4... T6 Ga |
| cUL certificate        | cUL Certificate - pdf/<br>VSSC.PDF (application/<br>pdf) |                       |                              |

### Important note

|                     |  |
|---------------------|--|
| Product information | Mode 2: State where the voltage-limiting part of the SPD was short-circuited due to a very low impedance within the SPD. The line is inoperable, but the measuring equipment is still protected by means of a short-circuit. |
|---------------------|--|

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**Technical data**

**Classifications**

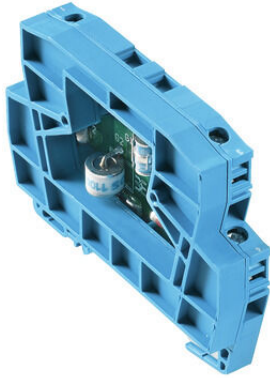
|             |             |             |             |
|-------------|-------------|-------------|-------------|
| ETIM 8.0    | EC000943    | ETIM 9.0    | EC000943    |
| ETIM 10.0   | EC000943    | ECLASS 14.0 | 27-17-15-02 |
| ECLASS 15.0 | 27-17-15-02 |             |             |

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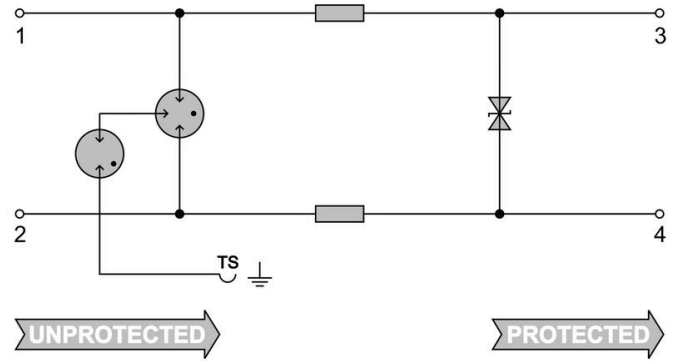
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Drawings



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Circuit diagram