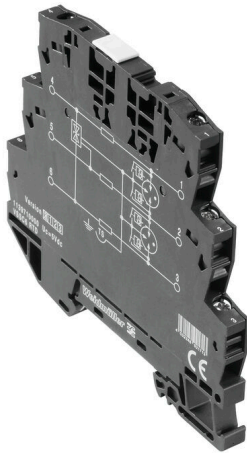


**VSSC6 RTD**
**Weidmüller Interface GmbH & Co. KG**

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="#">1139710000</a>  |
| Type       | VSSC6 RTD   |
| GTIN (EAN) | 4032248921713   |
| Qty.       | 10 items  |

## VSSC6 RTD

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## Technical data

## Approvals

Approvals



ROHS Conform

UL File Number Search [UL Website](#)

Certificate No. (UL) E311081

## Dimensions and weights

|            |         |                 |             |
|------------|---------|-----------------|-------------|
| Depth      | 81 mm   | Depth (inches)  | 3.189 inch  |
| Height     | 88.5 mm | Height (inches) | 3.4842 inch |
| Width      | 6.2 mm  | Width (inches)  | 0.2441 inch |
| Net weight | 43.8 g  |                 |             |

## Temperatures

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

## Probability of failure

|                                    |         |                  |        |
|------------------------------------|---------|------------------|--------|
| SIL in compliance with IEC 61508   | 3       | MTTF             | 1812 a |
| SFF                                | 94.05 % | λ <sub>ges</sub> | 63     |
| PFH in 1*10 <sup>-9</sup> per hour | 3.75    |                  |        |

## 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 |

## Rated data UL

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

## CSA protection data

|  |        |  |      |
|--|--------|--|------|
| Gas group D                              | IIA    | Gas groups A, B                        | IIC  |
| Input-current, max. I <sub>I</sub>       | 300 mA | Gas group C                            | IIB  |
| Internal inductance, max. L <sub>I</sub> | 0 µH   | Internal capacity, max. C <sub>I</sub> | 9 nF |
| Input voltage, max. U <sub>i</sub>       | 5 V    |  |      |

## General data

|                           |  |               |                                    |
|---------------------------|--|---------------|------------------------------------|
| Optical function display  | No   | Segment       | Measurement - Monitoring - Setting |
| Version                   | Surge protection for measurement and control | Design        | Terminal                           |
| UL 94 flammability rating | V-0  | Colour        | black                              |
| Protection degree         | IP20   | Mounting rail | TS 35                              |

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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                                | Signalling contact                                     | No               |
| Rated voltage (DC)                                   | 1 V                              | Rated current I <sub>N</sub>                           | 300 mA           |
| Protection level, UP wire - wire                     | 150 V                            | Protection level, UP wire - PE                         | 150 V            |
| Voltage type   | DC                               | Volume resistance                                      | 1.8 Ω 10 %       |
| Frequency range, max.                                | 113.6 MHz                        | Standards  | IEC 61643-21     |
| Lightning test current I <sub>imp</sub> (10/350 μs)  | 0.5 kA                           | Discharge current, max. (8/20 μs)                      | 10 kA            |
| Requirements category acc. to IEC 61643-21           | C2, C3, D1                       | Insertion loss   | 117.08 MHz       |
| Max. continuous voltage, U <sub>c</sub> (DC)         | 5 V                              | Surge current-carrying capacity D1                     | 0.5 kA 10/350 μs |
| Surge current-carrying capacity C3                   | 10 A 10/1000 μs                  | Pulse-reset capacity                                   | ≤ 10 ms          |
| Overload - failure mode                              | Modus 2                          | Rated load current I <sub>L</sub>                      | 300 mA           |
| Discharge current I <sub>n</sub> (8/20 μs) wire-wire | 2.5 kA                           | Discharge current I <sub>n</sub> (8/20 μs) wire-PE     | 2.5 kA           |
| Discharge current I <sub>max</sub> (8/20 μs) wire-PE | 5 kA                             | Discharge current I <sub>max</sub> (8/20 μs) wire-wire | 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> |

## Electrical data

|              |    |
|--------------|----|
| Voltage type | DC |
|--------------|----|

## General data

|                 |       |                   |      |
|-----------------|-------|-------------------|------|
| Number of poles | 1     | Protection degree | IP20 |
| Colour          | black |                   |      |

## Ratings IECEx/ATEX/cUL

|                 |  |
|-----------------|--|
| cUL certificate | cUL Certificate - pdf/<br>VSSC.PDF (application/<br>pdf) |
|-----------------|--|

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## Technical data

## 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. |
|---------------------|--|

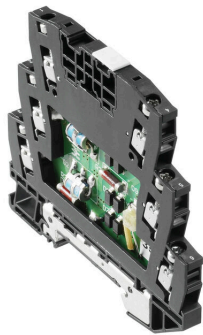
## Classifications

|             |             |             |             |
|-------------|-------------|-------------|-------------|
| ETIM 8.0    | EC000943    | ETIM 9.0    | EC000943    |
| ETIM 10.0   | EC000943    | ECLASS 14.0 | 27-17-15-01 |
| ECLASS 15.0 | 27-17-15-01 |             |             |

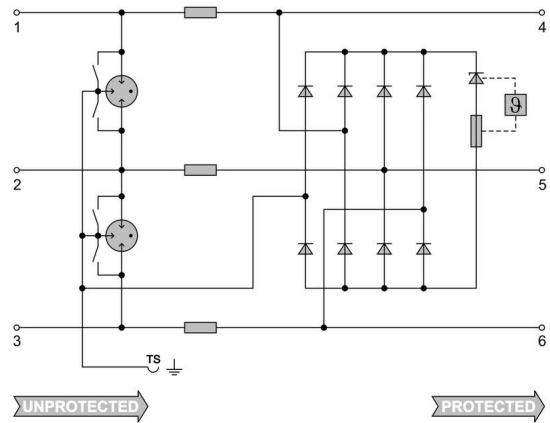
## Tender specification sheets

|                    |   |                     |  |
|--------------------|---|---------------------|--|
| Long specification | Surge protection in a one piece, 6.2 mm wide DIN rail module for a PT100 signal circuit with 12 V DC, 3-wire technology. A 3-wire signal with max. 0.3A can be protected here. When the terminal is fitted, a simultaneous electrically conducting contact is made between the mounting rail (earth) and the reference potential (ground) of the protection circuit in the terminal. Optical identification of the terminal based on the type of protected switching and the voltage level. The terminal can be labelled or marked. | Short specification | Surge protection in a one piece, 6.2 mm wide DIN rail module for a PT100 signal circuit with 3-wire technology. Version: 5V DC |
|--------------------|---|---------------------|--|

Drawings



Similar to illustration



Circuit diagram



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## Accessories

## Accessories (end plates)



End plates (AP) for the VSSC product series in light blue and black

## General ordering data

|            |                            |                 |
|------------|----------------------------|-----------------|
| Type       | AP VSSC6                   | Version         |
| Order No.  | <a href="#">1063110000</a> | VSSC, End plate |
| GTIN (EAN) | 4032248947553              |                 |
| Qty.       | 50 ST                      |                 |

## Blank



The Dekafix (DEK) marker is the universal marker for all conductor and plug-in connectors as well as for electronic sub-assemblies. The system is ideal for short number sequences and covers a wide range of ready-printed markers.

Strips for fast installation in only one work step. The printing is easy to read, rich in contrast and available in various widths.

- Large range of ready-to-use markers
  - Strips for fast installation
  - Terminal markers, suitable for all Weidmüller cable connectors
  - Available as blank MultiCard or with standard printing
- For custom printing: Please send us a file of our labeling software M-Print PRO or M-Print PRO Online (without installation) for your labeling specifications.

## General ordering data

|            |                            |   |
|------------|----------------------------|---|
| Type       | DEK 5/5 MC NE WS           | Version   |
| Order No.  | <a href="#">1609801044</a> | Dekafix, Terminal marker, 5 x 5 mm, Pitch in mm (P): 5.00 |
| GTIN (EAN) | 4008190397111              | Weidmueller, white  |
| Qty.       | 1000 ST                    |   |

## SnapMark



SnapMark - this tag carrier has been developed specifically for the I-series double-level terminal IDK 1.5N. The flexible pivot mechanism allows cross-connections to be easily installed or removed. It can hold four DEK 5 labelling tags or two WS 10/5 Middle connector markers.

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## Accessories

### General ordering data

|            |                            |  |  |
|------------|----------------------------|--|--|
| Type       | SNAPMARK I                 | Version  |  |
| Order No.  | <a href="#">1805880000</a> | Group markers, Terminal marker, 23 x 5 mm, Pitch in mm (P): 5.00 |  |
| GTIN (EAN) | 4032248273614              | Weidmueller, white   |  |
| Qty.       | 50 ST                      |  |  |