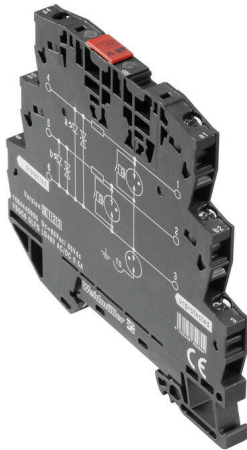


## VSSC6SL FG LD12VDC0.5A

**Weidmüller Interface GmbH & Co. KG**  
 Klingenbergstraße 26  
 D-32758 Detmold  
 Germany

[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

|            |   |
|------------|---|
| Version    | Surge protection for instrumentation and control,<br>Surge protection for measurement and control |
| Order No.  | <a href="#">1064420000</a>  |
| Type       | VSSC6SL FG LD12VDC0.5A  |
| GTIN (EAN) | 4032248829781   |
| Qty.       | 10 items  |

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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 | 42 g    |                 |             |

## Temperatures

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

## Probability of failure

|                                    |         |      |        |
|------------------------------------|---------|------|--------|
| SIL in compliance with IEC 61508   | 3       | MTTF | 2114 a |
| SFF                                | 96.67 % | λges | 54     |
| PFH in 1*10 <sup>-9</sup> per hour | 1.8     |      |        |

## 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 | UL certificate | UL Zertifikat - PDF/<br>E311081VOL1SEC3.pdf<br>(application/pdf) |
|----------------------|---------|----------------|--|

## CSA protection data

|  |        |  |      |
|--|--------|--|------|
| Gas group D                              | IIA    | Gas groups A, B                        | IIC  |
| Input-current, max. I <sub>I</sub>       | 500 mA | Gas group C                            | IIB  |
| Internal inductance, max. L <sub>I</sub> | 0 μH   | Internal capacity, max. C <sub>I</sub> | 2 nF |
| Input voltage, max. U <sub>i</sub>       | 15 V   |  |      |

## General data

|                           |   |               |                                       |
|---------------------------|---|---------------|---------------------------------------|
| Optical function display  | Yes   | Segment       | Measurement - Monitoring<br>- Setting |
| Version                   | Surge protection for<br>measurement and control | Design        | Terminal                              |
| UL 94 flammability rating | V-0   | Colour        | black                                 |
| 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                    | Leakage current at $U_n$                                 | 3.2 mA                                     |
| Rated voltage (DC)   | 12 V                 | Rated current $I_N$                                      | 500 mA                                     |
| Protection level on output side Wire-wire 30 V<br>1 kV/ $\mu$ s, typically |                      | Voltage type   | DC   |
| Fuse protection  | 0.5 A                | Volume resistance  | 1.8 $\Omega$ 10 %                          |
| Standards  | IEC 61643-21         | Lightning test current limp (10/350 $\mu$ s)             | 1 kA                                       |
| Discharge current, max. (8/20 $\mu$ s)                                     | 10 kA                | Dielectric strength at FG against PE                     | $\geq$ 500 V                               |
| Requirements category acc. to IEC 61643-21                                 | C2, C3, D1           | Insertion loss   | 732.08 kHz                                 |
| Max. continuous voltage, $U_c$ (DC)  | 15 V                 | Surge current-carrying capacity D1                       | 1 kA 10/350 $\mu$ s                        |
| Surge current-carrying capacity C3   | 10 A 10/1000 $\mu$ s | Pulse-reset capacity                                     | $\leq$ 20 ms                               |
| Signal transmission properties (-3 dB)                                     | 750 KHz              | Lightning test current, limp (10/350 $\mu$ s)<br>Wire-PE | 10 kA                                      |
| Overload - failure mode  | Modus 2              | Discharge current $I_{max}$ (8/20 $\mu$ s) GND-<br>PE    | 10 kA                                      |
| Rated load current $I_L$   | 500 mA               | Discharge current $I_{max}$ (8/20 $\mu$ s) wire-PE       | 10 kA                                      |
| Discharge current $I_n$ (8/20 $\mu$ s) GND-PE                              | 2.5 kA               | Surge current-carrying capacity C2                       | 2.5 kA 8/20 $\mu$ s 5 kV<br>1.2/50 $\mu$ s |

### 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<br>(DIN 46228-1), min. | 0.5 mm <sup>2</sup> | Conductor cross-section, flexible, AEH<br>(DIN 46228-1), max. | 4 mm <sup>2</sup> |
| Connection cross-section, stranded, min.                      | 0.5 mm <sup>2</sup> | Connection cross-section, stranded,<br>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**

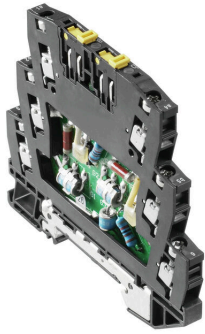
|                    |   |                     |   |
|--------------------|---|---------------------|---|
| Long specification | Surge protection in a one piece, 6.2 mm wide DIN rail module for two binary, potential-free signal circuits with 12 V DC. Signal indication via a green LED. When the terminal is fitted, there is a simultaneous sparkover gap created to the high-impedance earth between the mounting rail (earth) and the reference potential (ground) of the protective switch. 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 two binary, potential-free signal circuits. Signal indication via a green LED. Version: 12V DC |
|--------------------|---|---------------------|---|

**VSSC6SL FG LD12VDC0.5A**

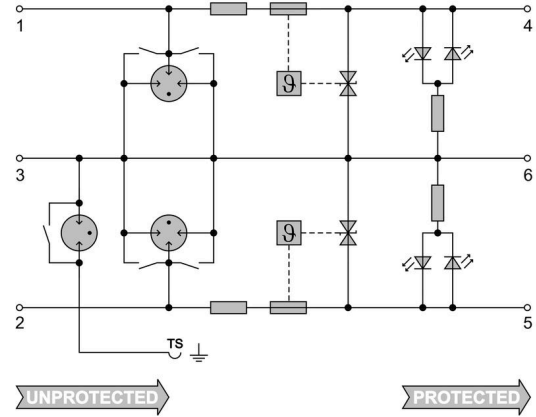
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Drawings



Similar to illustration



Circuit diagram



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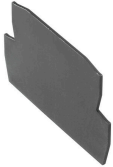
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## Accessories

### 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                      |                 |  |

### Testadapter and testsockets

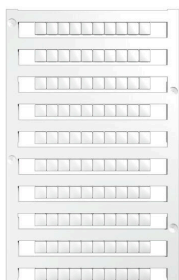


Test adapters and test plugs are used for the electrical connection between terminal blocks and the test equipment. In this way, an electrical contact can be established in the wired state and measurements can be done easily.

### General ordering data

|            |                            |                                       |  |
|------------|----------------------------|---------------------------------------|--|
| Type       | PS 2.3 RT                  | Version                               |  |
| Order No.  | <a href="#">0180400000</a> | Test adapter (terminal), 230 V, 20 mA |  |
| GTIN (EAN) | 4008190060121              |                                       |  |
| Qty.       | 20 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.

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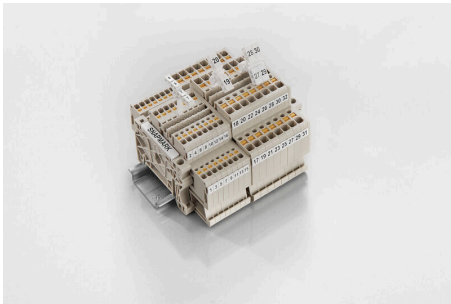
[www.weidmueller.com](http://www.weidmueller.com)

## Accessories

### 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.

### 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                      |  |  |