

## VSPC 4SL 24VAC

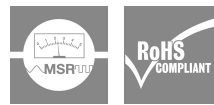
**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

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



Binary signal (SL – Symmetrical Load) protection includes the following signals:

- Switching signals with and without a common reference potential e.g. 5 V – 24V – 60 V
- Two-conductor systems usually involve a common reference potential of binary sensors, actuators and indicators such as limit switches, buttons, position sensors, photoelectric barriers, contactors, solenoid valves, indicator lamps, etc.
- Pluggable arrester, for interruption-free and impedance-neutral plug-in and pull-out
- Can be tested with the V-TEST testing device
- Version with floating-earth PE connection used to avoid interference currents resulting from differences in potential
- For use in compliance with the IEC 62305 and IEC 61643-22 installation standards (D1, C1, C2 and C3)
- Integrated PE foot safely discharges up to 20 kA (8/20  $\mu$ s) and 2.5 kA (10/350  $\mu$ s) to the PE
- Colour coding of the voltage levels for fast identification on the panel
- Safety function through coding elements for different voltage levels

### General ordering data

|            |   |
|------------|---|
| Version    | Surge protection for instrumentation and control, without warning function / function indicator |
| Order No.  | <a href="#">8924340000</a>  |
| Type       | VSPC 4SL 24VAC  |
| GTIN (EAN) | 4032248695980   |
| Qty.       | 1 items   |

## VSPC 4SL 24VAC

Weidmüller Interface GmbH &amp; Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

## Technical data

## Approvals

Approvals



ROHS Conform

UL File Number Search [UL Website](#)

Certificate No. (UL) E311081

## Dimensions and weights

|            |         |                 |             |
|------------|---------|-----------------|-------------|
| Depth      | 69 mm   | Depth (inches)  | 2.7165 inch |
| Height     | 90 mm   | Height (inches) | 3.5433 inch |
| Width      | 17.8 mm | Width (inches)  | 0.7008 inch |
| Net weight | 29 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   | 2      | MTTF | 2665 a |
| SFF                                | 79.3 % | λges | 43     |
| PFH in 1*10 <sup>-9</sup> per hour | 8.9    |      |        |

## Environmental Product Compliance

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

## Rated data UL

|                      |         |                |  |
|----------------------|---------|----------------|--|
| Certificate No. (UL) | E311081 | UL certificate | UL 497b Certificate - PDF/<br>E311081VOL1SEC2.pdf<br>(application/pdf) |
|----------------------|---------|----------------|--|

## CSA protection data

|                            |      |                              |      |
|----------------------------|------|------------------------------|------|
| Gas group D                | IIA  | Gas groups A, B              | IIC  |
| Gas group C                | IIB  | Internal inductance, max. LI | 0 μH |
| Internal capacity, max. CI | 4 nF | Input voltage, max. Ui       | 39 V |

## General data

|                           |  |                          |                                       |
|---------------------------|--|--------------------------|---------------------------------------|
| Optical function display  | No   | Segment                  | Measurement - Monitoring<br>- Setting |
| Version                   | without warning function /<br>function indicator | Design                   | Terminal, miscellaneous               |
| UL 94 flammability rating | V-0  | Colour                   | orange                                |
| Protection degree         | IP20   | protected binary signals | 4                                     |

## VSPC 4SL 24VAC

Weidmüller Interface GmbH &amp; Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

## Technical data

## Insulation coordination acc. to EN 50178

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

## Rated data IEC / EN

|  |                            |  |                             |
|--|----------------------------|--|-----------------------------|
| Number of poles  | 2                          | Signalling contact   | No                          |
| Rated voltage (AC)   | 24 V                       | Rated voltage (DC)   | 34 V                        |
| Rated current I <sub>N</sub>                                 | 300 mA                     | Protection level on output side Wire-wire                      | 110 V<br>1 kV/μs, typically |
| Protection level on output side Wire-PE                      | 60 V<br>1 kV/μs, typically | Protection level on output side Wire-wire                      | 80 V<br>8/20 μs, typically  |
| Voltage type   | AC                         | Fuse protection  | 0.5 A                       |
| Volume resistance  | 4.7 Ω                      | Standards  | IEC 61643-21                |
| Requirements category acc. to IEC 61643-21                   | C1, C2, C3, D1             | Max. continuous voltage, U <sub>c</sub> (AC)                   | 28 V                        |
| Max. continuous voltage, U <sub>c</sub> (DC)                 | 40 V                       | Lightning test current, I <sub>imp</sub> (10/350 μs) wire-wire | 2.5 kA                      |
| Surge current-carrying capacity D1                           | 2.5 kA 10/350 μs           | Surge current-carrying capacity C1                             | <1 kA 8/20 μs               |
| Surge current-carrying capacity C3                           | 100 A 10/1000 μs           | Lightning test current, I <sub>imp</sub> (10/350 μs) GND-PE    | 2.5 kA                      |
| Pulse-reset capacity   | ≤ 40 ms                    | Signal transmission properties (-3 dB)                         | 2.7 MHz                     |
| Lightning test current, I <sub>imp</sub> (10/350 μs) Wire-PE | 2.5 kA                     | Overload - failure mode  | Modus 2                     |
| Discharge current I <sub>max</sub> (8/20 μs) GND-PE          | 10 kA                      | 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         | 10 kA                      | Discharge current I <sub>max</sub> (8/20 μs) wire-wire         | 10 kA                       |
| Discharge current I <sub>n</sub> (8/20 μs) GND-PE            | 2.5 kA                     | Surge current-carrying capacity C2                             | 5 kA 8/20 μs                |

## Further details of approvals

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

## Connection data

|                    |                        |
|--------------------|------------------------|
| Type of connection | Pluggable in VSPC BASE |
|--------------------|------------------------|

## Electrical data

|              |    |
|--------------|----|
| Voltage type | AC |
|--------------|----|

## General data

|                 |        |                   |      |
|-----------------|--------|-------------------|------|
| Number of poles | 2      | Protection degree | IP20 |
| Colour          | orange |                   |      |

## Guarantee

|               |         |
|---------------|---------|
| Time interval | 5 years |
|---------------|---------|

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

## Technical data

### 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 |             |             |

VSPC 4SL 24VAC

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

Drawings

www.weidmueller.com

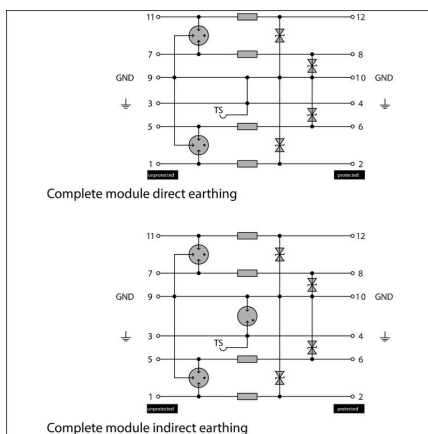
Electric symbol



Circuit diagram

| Cate- gory | Testing pulse     | Surge voltage             | Surge current              | Pulse Type  |
|------------|-------------------|---------------------------|----------------------------|---|
| C1         | Quick-rising edge | 0.5 - 2 kV with 1.2/50 µs | 0.25 - 1 kA mit 8/20 µs    | 300 Surge voltage arrester                          |
| C2         | Quick-rising edge | 2 - 10 kV with 1.2/50 µs  | 1 - 5 kA mit 8/20 µs       | 10 Surge voltage arrester                           |
| C3         | Quick-rising edge | ≥ 1 kV with 1 kV/µs       | 10 - 100 A mit 10/10000 µs | 300 Surge voltage arrester                          |
| D1         | High power        | ≥ 1 kV                    | 0.5 - 2.5 kA mit 10/350 µs | 2 Arrester for lightning current and surge voltages |

Discharge capacity



Komplettmodul

## VSPC 4SL 24VAC

**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26  
D-32758 Detmold  
Germany

www.weidmueller.com

## Accessories

### V-TEST testing device for VSPC



#### V-TEST

- Testing device for checking the protective function of the pluggable overvoltage protection PU I, PU II and VSPC series
- Device for implementing the IEC 62305 standard (regarding periodic testing)
- Easy-to-use device with integrated battery set for on-site measurements
- LCD results display
- Menu in two languages
- Including a protective bag and power supply
- User friendly navigation in German and English

The V-TEST is a compact, portable test instrument for the plug-in surge protectors VARITECTOR (VSPC) and the surge protectors for the power supply line PU I and PU II. Using this instrument Weidmüller overvoltage protectors can be tested for their protective function in line with the testing schedules laid down in IEC 62305-3 (DIN VDE 0185 part 3). In a display with background illumination, the test result is indicated with "OK" or "Not OK".

#### General ordering data

|            |                            |  |
|------------|----------------------------|--|
| Type       | V-TEST                     | Version  |
| Order No.  | <a href="#">8951860000</a> | Lightning and surge protection, Testing device |
| GTIN (EAN) | 4032248743100              |  |
| Qty.       | 1 ST                       |  |

### Plus



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 PLUS MC NE WS      | Version   |
| Order No.  | <a href="#">1854490000</a> | Dekafix, Terminal marker, 5 x 5 mm, Pitch in mm (P): 5.00 |
| GTIN (EAN) | 4032248393596              | Weidmueller, white  |
| Qty.       | 1000 ST                    |   |

## VSPC 4SL 24VAC

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

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

## Accessories

### Direct earthing



Base element for the pluggable VSPC arrester, integrated PE foot in impedance-neutral VSPC BASE. Can safely discharge up to 20 kA (8/20  $\mu$ s) and 2.5 kA (10/350  $\mu$ s) to the PE.

### General ordering data

|            |                            |  |  |
|------------|----------------------------|--|--|
| Type       | VSPC BASE 4SL              | Version  |  |
| Order No.  | <a href="#">8924700000</a> | Surge protection, Flange-mounted housing, Flange-mounted housing |  |
| GTIN (EAN) | 4032248696345              |  |  |
| Qty.       | 1 ST                       |  |  |

### Retaining clip



The interlock mechanism on the VSPC Series pluggable arrester delivers extra reliability and an improved permanent contact under strong vibrating conditions.

### General ordering data

|            |                            |                            |  |
|------------|----------------------------|----------------------------|--|
| Type       | VSPC LOCKING CLIP          | Version                    |  |
| Order No.  | <a href="#">1317340000</a> | Fastening element, Latches |  |
| GTIN (EAN) | 4050118121179              |                            |  |
| Qty.       | 100 ST                     |                            |  |

## VSPC 4SL 24VAC

**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

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

## Counterpart

### Direct earthing



Base element for the pluggable VSPC arrester, integrated PE foot in impedance-neutral VSPC BASE. Can safely discharge up to 20 kA (8/20  $\mu$ s) and 2.5 kA (10/350  $\mu$ s) to the PE.

### General ordering data

|            |                            |  |  |
|------------|----------------------------|--|--|
| Type       | VSPC BASE 4SL              | Version  |  |
| Order No.  | <a href="#">8924700000</a> | Surge protection, Flange-mounted housing, Flange-mounted housing |  |
| GTIN (EAN) | 4032248696345              |  |  |
| Qty.       | 1 ST                       |  |  |

### Indirect earthing / floating ground via sparkover gap, also suitable for EX ia applications



Base element for the pluggable VSPC arresters. Integrated PE foot in the base of the impedance-neutral VSPC BASE and floating earth PE connection (FG) via integrated sparkover gap, safely discharges up to 20 kA (8/20  $\mu$ s) and 2.5 kA (10/350  $\mu$ s) to PE. Suitable for unearthed signal circuits.

### General ordering data

|            |                            |  |  |
|------------|----------------------------|--|--|
| Type       | VSPC BASE 4SL FG           | Version  |  |
| Order No.  | <a href="#">8924260000</a> | Surge protection, Flange-mounted housing, Flange-mounted housing |  |
| GTIN (EAN) | 4032248695904              |  |  |
| Qty.       | 1 ST                       |  |  |