

## VSPC

### VSPC 2CL HF 24VDC

**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

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Germany

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- Monitoring function with status indicator and message function
- Pluggable arrester, with no-interrupt and impedance-neutral plug-in and pull-out
- Can be tested with the V-TEST testing device
- High transmission rates with minimal attenuation values
- Space-saving design, with alert function and no extra space required
- Can be used in compliance with the IEC 62305 (**D1, C1 and C2**) installation standard
- Integrated PE foot, safely discharges up to 20 kA (8/20  $\mu$ s) and 2.5 kA (10/350  $\mu$ s) to PE
- Quick identification in the electrical cabinet with coloured labelling of the voltage levels
- Coding element for the different voltage levels provides safety

#### General ordering data

|            |   |
|------------|---|
| Type       | VSPC 2CL HF 24VDC   |
| Order No.  | <a href="#">8924510000</a>  |
| Version    | Surge protection for instrumentation and control, 24 V, 450 mA, IEC 61643-21, HART-compatible |
| GTIN (EAN) | 4032248696147   |
| Qty.       | 1 pc(s).  |

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

|            |         |                 |            |
|------------|---------|-----------------|------------|
| Width      | 17.8 mm | Width (inches)  | 0.701 inch |
| Height     | 90 mm   | Height (inches) | 3.543 inch |
| Depth      | 69 mm   | Depth (inches)  | 2.717 inch |
| Net weight | 46 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**

|                                    |      |      |             |
|------------------------------------|------|------|-------------|
| λges                               | 45   | MTTF | 2,537 Years |
| PFH in 1*10 <sup>-9</sup> per hour | 2.95 | SFF  | 93.98 %     |
| 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 497b Certificate |
|----------------------|---------|----------------|---------------------|

**CSA protection data**

|  |       |  |      |
|--|-------|--|------|
| Gas group C                            | IIB   | Gas group D                              | IIA  |
| Gas groups A, B                        | IIC   | Input voltage, max. U <sub>i</sub>       | 28 V |
| Internal capacity, max. C <sub>i</sub> | 10 nF | Internal inductance, max. L <sub>i</sub> | 0 μH |

**General data**

|                          |  |                           |                         |
|--------------------------|--|---------------------------|-------------------------|
| Colour                   | orange   | Design                    | Terminal, miscellaneous |
| Optical function display | No   | Protection degree         | IP20                    |
| Segment                  | Measurement - Monitoring<br>- Setting            | UL 94 flammability rating | V-0                     |
| Version                  | without warning function /<br>function indicator | protected current loops   | 2                       |

**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)   | 24 V             | Voltage type   | DC                            |
| Max. continuous voltage, U <sub>c</sub> (DC)                 | 28 V             | Discharge current I <sub>n</sub> (8/20µs) GND-PE               | 2.5 kA                        |
| Discharge current I <sub>max</sub> (8/20µs) GND-PE           | 10 kA            | Discharge current I <sub>n</sub> (8/20µs) wire-PE              | 2.5 kA                        |
| Discharge current I <sub>max</sub> (8/20µs) wire-PE          | 2 x 10 kA        | Discharge current I <sub>n</sub> (8/20µs) wire-wire            | 2.5 kA                        |
| Discharge current I <sub>max</sub> (8/20µs) wire-wire        | 10 kA            | Lightning test current, I <sub>imp</sub> (10/350 µs) GND-PE    | 2.5 kA                        |
| Lightning test current, I <sub>imp</sub> (10/350 µs) Wire-PE | 2.5 kA           | Lightning test current, I <sub>imp</sub> (10/350 µs) wire-wire | 2.5 kA                        |
| Fuse   | 0.5 A            | Standards  | IEC 61643-21, HART-compatible |
| Protection level U <sub>p</sub> (typ.)                       | < 800 V          | Protection level on output side Wire-PE 1kV/µs, typically      | 450 V                         |
| Protection level on output side Wire-wire 1 kV/µs, typically | 45 V             | Protection level on output side Wire-wire 8/20 µs, typically   | 45 V                          |
| Protection level, U <sub>p</sub> GND - PE                    | 800 V            | Protection level, U <sub>p</sub> wire - PE                     | 450 V                         |
| Number of poles  | 1                | Overload - failure mode  | Modus 2                       |
| Protection level, U <sub>p</sub> wire - wire                 | 45 V             | Pulse-reset capacity   | ≤ 40 ms                       |
| Rated current I <sub>N</sub>                                 | 450 mA           | Requirements category acc. to IEC 61643-21                     | C1, C2, C3, D1                |
| Signal transmission properties (-3 dB)                       | 109 MHz          | Signalling contact   | No                            |
| Surge current-carrying capacity C1                           | < 1 kA 8/20 µs   | Surge current-carrying capacity C2                             | 5 kA 8/20 µs                  |
| Surge current-carrying capacity C3                           | 100 A 10/1000 µs | Surge current-carrying capacity D1                             | 2.5 kA 10/350 µs              |
| Volume resistance  | 2.20 Ω           |  |                               |

**Further details of approvals**

GOST certificate GOST-Zertifikat

**Connection data**

Type of connection Pluggable in VSPC BASE

**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

**Downloads**

|   |   |
|---|---|
| Approval/Certificate/Document of Conformity | <a href="#">SIL Paper</a><br><a href="#">CE PAPER</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</a>                     |

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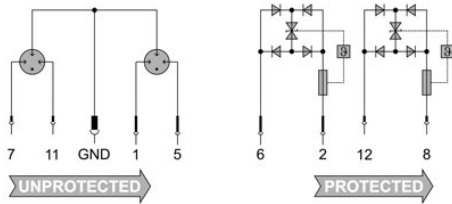
**Data sheet**

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**Drawings**

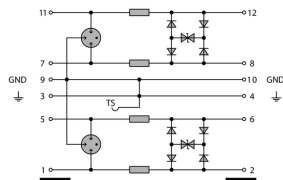
**Electric symbol**



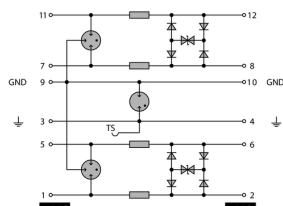
Similar to illustration

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

Discharge capacity



Komplettmodul direkte Erdung



Komplettmodul indirekte Erdung  
Komplettmodul