

## VSPC 2CL HF 12VDC

Weidmüller Interfaces GmbH & Co. KG

Postfach 3030

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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

|            |  |
|------------|--|
| Version    | Surge protection for instrumentation and control, without warning function / function indicator, $U_P(L/N-PE) < 800 \text{ V}$ |
| Order No.  | <a href="#">8924460000</a>   |
| Type       | VSPC 2CL HF 12VDC  |
| GTIN (EAN) | 4032248696093  |
| Qty.       | 1 pc(s).   |

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## Technical data

## Dimensions and weights

|            |         |                 |            |
|------------|---------|-----------------|------------|
| Depth      | 69 mm   | Depth (inches)  | 2.717 inch |
| Height     | 90 mm   | Height (inches) | 3.543 inch |
| Width      | 17.8 mm | Width (inches)  | 0.701 inch |
| Net weight | 47 g    |                 |            |

## Temperatures

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

## Probability of failure

|                                    |         |      |             |
|------------------------------------|---------|------|-------------|
| SIL in compliance with IEC 61508   | 3       | MTTF | 2,537 Years |
| SFF                                | 93.98 % | λges | 45          |
| PFH in 1*10 <sup>-9</sup> per hour | 2.95    |      |             |

## 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>       | 15 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

|   |                               |   |                       |
|---|-------------------------------|---|-----------------------|
| Discharge current $I_{\max}$ (8/20 $\mu$ s) GND-PE                | 10 kA                         | Discharge current $I_{\max}$ (8/20 $\mu$ s) wire-PE                 | 10 kA                 |
| Discharge current $I_{\max}$ (8/20 $\mu$ s) wire-wire             | 10 kA                         | Discharge current $I_n$ (8/20 $\mu$ s) GND-PE                       | 2.5 kA                |
| Discharge current $I_n$ (8/20 $\mu$ s) wire-PE                    | 2.5 kA                        | Discharge current $I_n$ (8/20 $\mu$ s) wire-wire                    | 2.5 kA                |
| Fuse  | 0.5 A                         | Lightning test current, $I_{\text{imp}}$ (10/350 $\mu$ s) GND-PE    | 2.5 kA                |
| Lightning test current, $I_{\text{imp}}$ (10/350 $\mu$ s) Wire-PE | 2.5 kA                        | Lightning test current, $I_{\text{imp}}$ (10/350 $\mu$ s) wire-wire | 2.5 kA                |
| Max. continuous voltage, $U_c$ (DC)                               | 15 V                          | Number of poles   | 1                     |
| Overload - failure mode   | Modus 2                       | Protection level $U_p$ (typ.)                                       | < 800 V               |
| Protection level on output side Wire-PE 1kV/ $\mu$ s, typically   | 450 V                         | Protection level on output side Wire-wire 1 kV/ $\mu$ s, typically  | 25 V                  |
| Protection level on output side Wire-wire 8/20 $\mu$ s, typically | 25 V                          | Protection level, $U_p$ GND - PE                                    | 800 V                 |
| Protection level, $U_p$ wire - PE                                 | 450 V                         | Protection level, $U_p$ wire - wire                                 | 25 V                  |
| Pulse-reset capacity  | $\leq 80$ ms                  | Rated current $I_N$   | 450 mA                |
| Rated voltage (DC)  | 12 V                          | Requirements category acc. to IEC 61643-21                          | C1, C2, C3, D1        |
| Signal transmission properties (-3 dB)                            | 104 MHz                       | Signalling contact  | No                    |
| Standards   | IEC 61643-21, HART-compatible | Surge current-carrying capacity C1                                  | < 1 kA 8/20 $\mu$ s   |
| Surge current-carrying capacity C2                                | 5 kA 8/20 $\mu$ s             | Surge current-carrying capacity C3                                  | 100 A 10/1000 $\mu$ s |
| Surge current-carrying capacity D1                                | 2.5 kA 10/350 $\mu$ s         | Voltage type  | DC                    |
| Volume resistance   | 2.20 $\Omega$                 |   |                       |

## Further details of approvals

GOST certificate GOST-Zertifikat

## Connection data

Type of connection Pluggable in VSPC BASE

## Ratings IECEx/ATEX/cUL

cUL certificate cUL Certificate

## Classifications

|             |             |             |             |
|-------------|-------------|-------------|-------------|
| ETIM 6.0    | EC000943    | ETIM 7.0    | EC000943    |
| ETIM 8.0    | EC000943    | ECLASS 9.0  | 27-13-08-07 |
| ECLASS 9.1  | 27-13-08-07 | ECLASS 10.0 | 27-13-08-07 |
| ECLASS 11.0 | 27-13-08-07 | ECLASS 12.0 | 27-17-90-90 |

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## Technical data

### Tender specification sheets

|                    |   |                     |  |  |
|--------------------|---|---------------------|--|--|
| Long specification | Surge protection plug for use in connection with the base element VSPC BASE 2CL for two floating-ground driven paired cables, for IT use. Two-stage protection circuit consisting of coarse protection, decoupling resistors and fine protection between the signal wires and coarse common mode voltage protection to earth. Mechanical identification of the plug to the base element according to the switching type and rated voltage. Optical identification of the protected plug based on the type of protected switching and the voltage level. Protected plug with coding pin and counter-profile for the base element. It is possible to mark the plug. | Short specification | <a href="http://www.weidmueller.com">www.weidmueller.com</a> | Surge protection plug for use in connection with the base element VSPC BASE 2CL for two floating-ground driven paired cables, for IT use, 12 V DC. |
|--------------------|---|---------------------|--|--|

### Environmental Product Compliance

|            |                                      |
|------------|--------------------------------------|
| REACH SVHC | Lead 7439-92-1                       |
| SCIP       | 71e97bb7-979f-4330-94c0-20c629bb05e3 |

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

### Approvals

Approvals



|                       |            |
|-----------------------|------------|
| ROHS                  | Conform    |
| UL File Number Search | UL Website |
| Certificate No. (UL)  | E311081    |

### Downloads

|   |  |
|---|--|
| Approval/Certificate/Document of Conformity | <a href="#">SIL Paper</a><br><a href="#">EU_Konformitätserklärung / EU_Declaration_of_Conformity</a> |
| Engineering Data                            | <a href="#">CAD data – STEP</a>  |
| Engineering Data                            | <a href="#">WSCAD</a>  |
| User Documentation                          | <a href="#">Beipackzettel / Instruction sheet</a>  |
| Catalogues                                  | <a href="#">Catalogues in PDF-format</a>   |
| Brochures                                   |  |

Creation date March 6, 2023 7:47:26 PM CET

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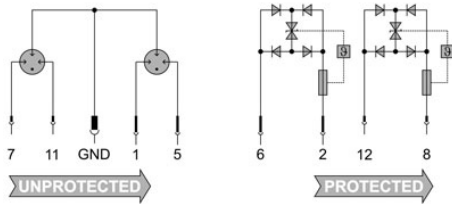
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**Drawings**

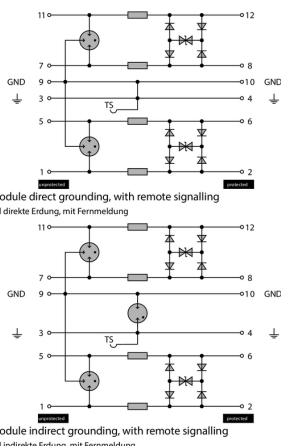
**Electric symbol**



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**