

## VSPC

### VSPC 3/4WIRE 24VDC

**Weidmüller Interface GmbH & Co. KG**

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Germany

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3 or 4-wire system protection includes the following signals:

- PT100, measuring bridges, DMS sensors, measuring bridges, ...
- Pluggable arrester, for interruption-free and impedance-neutral plug-in and pull-out
- Can be tested with V-TEST testing device
- Space-saving design for up to 4 binary signals
- Version with floating-earth PE connection used to avoid interference currents that result from differences in voltage potential
- For use in compliance with the IEC 62305 and IEC61643-22 (D1, C1, C2 and C3) installation standards
- 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 in the cabinet
- Safety function through coding elements for different voltage levels

#### General ordering data

|            |  |
|------------|--|
| Type       | VSPC 3/4WIRE 24VDC   |
| Order No.  | <a href="#">8924550000</a>   |
| Version    | Surge protection for instrumentation and control, 24 V, 450 mA, IEC 61643-21 |
| GTIN (EAN) | 4032248696192  |
| 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 | 47 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                               | 43 | MTTF | 2,655 Years |
| PFH in 1*10 <sup>-9</sup> per hour | 7  | SFF  | 95.33 %     |
| 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> | 4 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 |                           |                         |

**Insulation coordination acc. to EN 50178**

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

**Data sheet**

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**Technical data**

**Rated data IEC / EN**

|   |                  |  |                  |
|---|------------------|--|------------------|
| Capacitance   | 935 pF           | Discharge current $I_{max}$ (8/20µs) GND-PE                  | 10 kA            |
| Discharge current $I_{max}$ (8/20µs) wire-PE          | 10 kA            | Discharge current $I_{max}$ (8/20µs) wire-wire               | 10 kA            |
| Discharge current $I_n$ (8/20µs) GND-PE               | 2.5 kA           | Discharge current $I_n$ (8/20µs) wire-PE                     | 2.5 kA           |
| Discharge current $I_n$ (8/20µs) wire-wire            | 2.5 kA           | Lightning test current, $I_{imp}$ (10/350 µs) GND-PE         | 2.5 kA           |
| Lightning test current, $I_{imp}$ (10/350 µs) Wire-PE | 2.5 kA           | Lightning test current, $I_{imp}$ (10/350 µs) wire-wire      | 2.5 kA           |
| Max. continuous voltage, $U_c$ (DC)                   | 28 V             | Overload - failure mode                                      | Modus 2          |
| Protection level $U_p$ (typ.)                         | < 800 V          | Protection level on output side Wire-wire 8/20 µs, typically | 50 V             |
| Protection level, $U_p$ GND - PE                      | 450 V            | Pulse-reset capacity   | ≤ 30 ms          |
| Rated voltage (DC)                                    | 24 V             | Requirements category acc. to IEC 61643-21                   | C1, C2, C3, D1   |
| Signal transmission properties (-3 dB)                | 750 KHz          | Signalling contact   | No               |
| Standards   | IEC 61643-21     | 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 | Voltage type   | DC               |
| Volume resistance                                     | 0.20 Ω           |  |                  |

**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 3.0   | EC000943    | ETIM 4.0   | EC000381    |
| ETIM 5.0   | EC000943    | ETIM 6.0   | EC000943    |
| UNSPSC     | 30-21-19-21 | eClass 5.1 | 27-13-08-01 |
| eClass 6.2 | 27-13-08-02 | eClass 7.1 | 27-13-08-09 |
| eClass 8.1 | 27-13-08-11 | eClass 9.0 | 27-13-08-07 |
| eClass 9.1 | 27-13-08-07 |            |             |

**Approvals**

Approvals



ROHS Conform

**Data sheet****VSPC  
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**Technical data****Downloads**

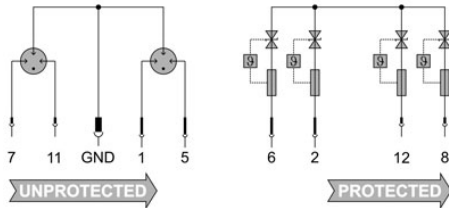
|   |   |
|---|---|
| Approval/Certificate/Document of Conformity | <a href="#">SIL Paper</a><br><a href="#">CE PAPER</a> |
| Brochure/Catalogue                          | <a href="#">CAT 4.4 ELECTR 16/17 EN</a>               |
| Engineering Data                            | <a href="#">EPLAN, WSCAD</a>                          |
| Engineering Data                            | <a href="#">STEP</a>                                  |
| User Documentation                          | <a href="#">Instruction sheet</a>                     |

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**Drawings**

**Electric symbol**



Circuit diagram

| 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>8/20 µs        | 300   | Surge voltage arrester                            |
| C2         | Quick-rising edge | 2 - 10 kV<br>1.2/50 µs  | 1 - 5 kA<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

