

VSPC

VSPC 2CL HF 24VDC R

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 16

D-32758 Detmold

Germany

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www.weidmueller.com



- 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 μs) and 2.5 kA (10/350 μs) 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 R |
| Order No. | 8951700000 |
| Version | Surge protection for instrumentation and control, 24 V, 450 mA, IEC 61643-2 1 |
| GTIN (EAN) | 4032248742943 |
| Qty. | 1 pc(s). |

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Technical data
Dimensions and weights

| | | | |
|------------|---------|-----------------|------------|
| Width | 17.8 mm | Width (inches) | 0.701 inch |
| Height | 98 mm | Height (inches) | 3.858 inch |
| Depth | 69 mm | Depth (inches) | 2.717 inch |
| Net weight | 48 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

| | | | |
|-----------------------------------|-----|------|-------------|
| λ_{ges} | 45 | MTTF | 2,537 Years |
| PFH in $1 \cdot 10^{-9}$ per hour | 4.7 | SFF | 94.28 % |
| SIL in compliance with IEC 61508 | 3 | | |

CSA protection data

| | | | |
|-------------------------------|-------|---------------------------------|-----------|
| Gas group C | IIB | Gas group D | IIA |
| Gas groups A, B | IIC | Input voltage, max. U_i | 28 V |
| Internal capacity, max. C_i | 10 nF | Internal inductance, max. L_i | 0 μ H |

General data

| | | | |
|--------------------------|---|---------------------------|-------------------------|
| Colour | Orange | Design | Terminal, Miscellaneous |
| Optical function display | green = OK; red = arrester is defective - replace | Protection degree | IP20 |
| Segment | Instrumentation and Control | UL 94 flammability rating | V-0 |
| Version | with warning function / 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 μ s) GND-PE | 10 kA | Discharge current I_{\max} (8/20 μ s) wire-PE | 2 x 10 kA |
| Discharge current I_{\max} (8/20 μ s) wire-wire | 10 kA | Discharge current I_n (8/20 μ s) GND-PE | 2.5 kA |
| Discharge current I_n (8/20 μ s) wire-PE | 2.5 kA | Discharge current I_n (8/20 μ s) wire-wire | 2.5 kA |
| Fuse | 0.5 A | Lightning test current, I_{imp} (10/350 μ s) GND-PE | 2.5 kA |
| Lightning test current, I_{imp} (10/350 μ s) Wire-PE | 2.5 kA | Lightning test current, I_{imp} (10/350 μ s) 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-PE 1kV/ μ s, typically | 450 V |
| Protection level on output side Wire-wire 1 kV/ μ s, typically | 45 V | Protection level on output side Wire-wire 8/20 μ s, typically | 45 V |
| Protection level, U_p GND - PE | 800 V | Protection level, U_p wire - PE | 450 V |
| Protection level, U_p wire - wire | 45 V | Pulse-reset capacity | \leq 40 ms |
| Rated current I_N | 450 mA | Rated voltage (DC) | 24 V |
| Requirements category acc. to IEC 61643-21 | C1, C2, C3, D1 | Signal transmission properties (-3 dB) | 109 MHz |
| Signalling contact | U_N 250 V AC 0.1 A 1CO at VSPC R with VSPC CONTROL UNIT | Standards | IEC 61643-21 |
| Surge current-carrying capacity C1 | < 1 kA 8/20 μ s | Surge current-carrying capacity C2 | 5 kA 8/20 μ s |
| Surge current-carrying capacity C3 | 100 A 10/1000 μ s | Surge current-carrying capacity D1 | 2.5 kA 10/350 μ s |
| Voltage type | DC | Volume resistance | 2.20 Ω |

Further details of approvals

GOST certificate GOST-Zertifikat

Rated data UL

Certificate No. (UL) E311081 UL certificate UL 497b Certificate

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 | 27-13-08-11 |
| eClass 9.1 | 27-13-08-07 | | |

Product information

Descriptive text technical data The associated VSPC base element should be ordered with this. The dimension information provided refers to the complete module.
 Instructions for accessories EMC Set: 1067470000 Marker: DEK 5

Data sheet

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Technical data

Approvals

Approvals



ROHS Conform

Downloads

| | |
|---|---|
| Approval/Certificate/Document of Conformity | SIL Paper CE PAPER |
| Brochure/Catalogue | CAT 4.4 ELECTR 16/17 EN |
| Engineering Data | EPLAN_WSCAD |
| Engineering Data | STEP |
| User Documentation | Instruction sheet |

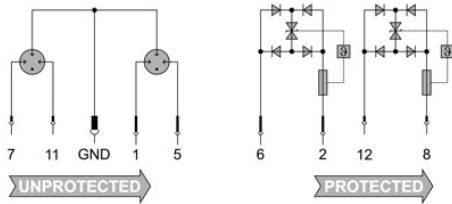
Data sheet

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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 1.2/50 µs | 0.25 - 1 kA mit 8/20 µs | 300 | Surge voltage arrester |
| C2 | Quick-rising edge | 2 - 10 kV 1.2/50 µs | 1 - 5 kA mit 8/20 µs | 10 | Surge voltage arrester |
| C3 | Quick-rising edge | ≥ 1 kV 1 kV/µs | 10 - 100 A 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

