

VSPC

VSPC 4SL 12VDC

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 16

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Germany

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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 µs) and 2.5 kA (10/350 µs) 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

Type	VSPC 4SL 12VDC
Order No.	8924220000
Version	Surge protection for instrumentation and control, 12 V, 300 mA, IEC 61643-21
GTIN (EAN)	4032248695867
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	2,665 Years
PFH in 1*10 ⁻⁹ per hour	8.9	SFF	79.3 %
SIL in compliance with IEC 61508	2		

Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
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Rated data UL

Certificate No. (UL)	E311081	UL certificate	UL 497b Certificate
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CSA protection data

Gas group C	IIB	Gas group D	IIA
Gas groups A, B	IIC	Input voltage, max. U _i	15 V
Internal capacity, max. C _i	4 nF	Internal inductance, max. L _i	0 μH

General data

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

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 kADischarge current $I_{\max}$ (8/20 μ s) wire-wire 10 kADischarge current I_n (8/20 μ s) wire-PE 2.5 kA

Fuse 0.5 A

Lightning test current, I_{imp} (10/350 μ s) Wire-PE 2.5 kAMax. continuous voltage, U_c (DC) 15 VProtection level U_p (typ.) < 200 VProtection level on output side Wire-wire 1 kV/ μ s, typically 45 VProtection level, U_p GND - PE 450 VPulse-reset capacity $\leq$ 20 ms

Rated voltage (DC) 12 V

Signal transmission properties (-3 dB) 2.5 MHz

Standards IEC 61643-21

Surge current-carrying capacity C2 5 kA 8/20 μ sSurge current-carrying capacity D1 2.5 kA 10/350 μ sVolume resistance 4.7 Ω Discharge current $I_{\max}$ (8/20 μ s) wire-PE 10 kADischarge current I_n (8/20 μ s) GND-PE 2.5 kADischarge current I_n (8/20 μ s) wire-wire 2.5 kALightning test current, I_{imp} (10/350 μ s) GND-PE 2.5 kALightning test current, I_{imp} (10/350 μ s) wire-wire 2.5 kA

Overload - failure mode Modus 2

Protection level on output side Wire-PE 1 kV/ μ s, typically 25 VProtection level on output side Wire-wire 8/20 μ s, typically 45 VProtection level, U_p wire - PE 20 VRated current I_N 300 mA

Requirements category acc. to IEC 61643-21 C1, C2, C3, D1

Signalling contact No

Surge current-carrying capacity C1 < 1 kA 8/20 μ sSurge current-carrying capacity C3 100 A 10/1000 μ s

Voltage type DC

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 5.0 EC000943

UNSPSC 30-21-19-21

eClass 6.2 27-13-08-02

eClass 8.1 27-13-08-11

eClass 9.1 27-13-08-07

ETIM 4.0 EC000381

ETIM 6.0 EC000943

eClass 5.1 27-13-08-01

eClass 7.1 27-13-08-09

eClass 9.0 27-13-08-07

Approvals

Approvals



ROHS

Conform

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Technical data

Downloads

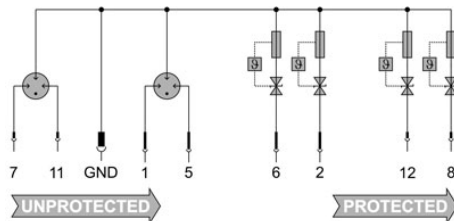
Approval/Certificate/Document of Conformity	SIL Paper CE PAPER
Brochure/Catalogue	CAT 4.4 ELECTR 16/17 EN
Engineering Data	EPLAN, WSCAD
Engineering Data	STEP
User Documentation	Instruction sheet

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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 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

