

VSPC
VSPC 4SL 5VDC
Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 16

D-32758 Detmold

Germany

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www.weidmueller.com



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 5VDC
Order No.	8924200000
Version	Surge protection for instrumentation and control, 5 V, 300 mA, IEC 61643-21
GTIN (EAN)	4032248695843
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	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

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	6.4 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) 6.4 VProtection level U_p (typ.) < 200 VProtection level on output side Wire-wire 1 kV/ μ s, typically 25 VProtection level, U_p GND - PE 450 VPulse-reset capacity $\leq$ 20 ms

Rated voltage (DC) 5 V

Signal transmission properties (-3 dB) 1.2 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 12 VProtection level on output side Wire-wire 8/20 μ s, typically 25 VProtection level, U_p wire - PE 10 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

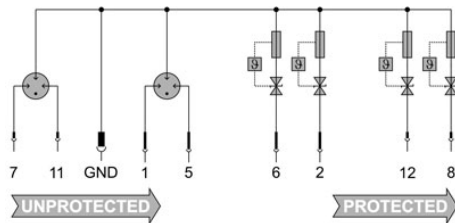
Approval/Certificate/Document of Conformity	SIL Paper CE PAPER
Brochure/Catalogue	CAT 4.4 ELECTR 16/17 EN
Engineering Data	EPLAN, WSCAD
Engineering Data	STEP
User Documentation	Instruction sheet

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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

