

VSPC 4SL 48VAC

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

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 μ s) and 2.5 kA (10/350 μ s) 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

Version	Surge protection for instrumentation and control, 48 V, 68 V, 250 mA, IEC 61643-21
Order No.	8924360000
Type	VSPC 4SL 48VAC
GTIN (EAN)	4032248696000
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
Net weight	48 g	Width	17.8 mm
Width (inches)	0.701 inch		

Temperatures

Storage temperature	-40 °C...80 °C	Operating temperature	-40 °C...70 °C
Humidity	5...96 %		

Probability of failure

SIL PAPER	SIL Paper	SIL in compliance with IEC 61508	2
MTTF	2,665 Years	SFF	79.3 %
λges	43	PFH in 1*10 ⁻⁹ per hour	8.9

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	85 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 kA	Discharge current I_{max} (8/20 μ s) wire-PE	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 (AC)	60 V	Max. continuous voltage, U_c (DC)	85 V
Number of poles	2	Overload - failure mode	Modus 2
Protection level U_p (typ.)	≤ 300 V	Protection level on output side Wire-PE 1kV/ μ s, typically	85 V
Protection level on output side Wire-wire 1 kV/ μ s, typically	210 V	Protection level on output side Wire-wire 8/20 μ s, typically	80 V
Protection level, U_p GND - PE	450 V	Protection level, U_p wire - PE	80 V
Pulse-reset capacity	≤ 60 ms	Rated current I_N	250 mA
Rated voltage (AC)	48 V	Rated voltage (DC)	68 V
Requirements category acc. to IEC 61643-21	C1, C2, C3, D1	Signal transmission properties (-3 dB)	8.7 MHz
Signalling contact	No	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	AC	Volume resistance	4.7 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 6.0	EC000943	ETIM 7.0	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

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Technical data**Tender specification sheets**

Long specification		Short specification
	<p>Surge protection plug for use in connection with the base element VSPC BASE 4SL for four wires with a common ground. Two-stage protection circuit in the plug consisting of coarse protection, decoupling resistors and fine protection between the signal wires and the signal ground/ground/earth. Mechanical identification of the plug to the base element according to the switching type and rated voltage. Protected plug with coding pin and counter-profile for the base element. Optical identification of the protected plug based on the type of protected switching and the voltage level. It is possible to mark the plug.</p>	<p>Surge protection plug for base element VSPC BASE 4SL R, coarse and fine common mode voltage protection for four wires with a common ground. Version: 48 V AC</p>

Approvals

Approvals



ROHS	Conform
UL File Number Search	E311081

Downloads

Approval/Certificate/Document of Conformity	SIL Paper CE PAPER
Engineering Data	STEP
Engineering Data	EPLAN_WSCAD
User Documentation	Instruction sheet

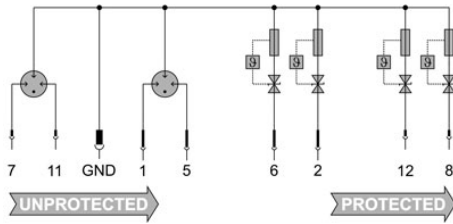
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Drawings

Electric symbol



Circuit diagram

Cate- gory	Testing pulse	Surge voltage	Surge current	Pulse	Type
C1	Quick-rising edge	0.5 - 2 kV 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 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

