

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

Klingenbergstraße 16

D-32758 Detmold

Germany

Fon: +49 5231 14-0

Fax: +49 5231 14-292083

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 R
Order No.	8951570000
Version	Surge protection for instrumentation and control, 5 V, 300 mA, IEC 61643-21
GTIN (EAN)	4032248742813
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	50 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}	43	MTTF	2,665 Years
PFH in $1 \cdot 10^{-9}$ per hour	10.7	SFF	86.02 %
SIL in compliance with IEC 61508	2		

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 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 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 (DC)	6.4 V	Overload - failure mode	Modus 2
Protection level U_p (typ.)	< 200 V	Protection level on output side Wire-PE 1kV/ μ s, typically	12 V
Protection level on output side Wire-wire 1 kV/ μ s, typically	25 V	Protection level on output side Wire-wire 8/20 μ s, typically	25 V
Protection level, U_p GND - PE	450 V	Protection level, U_p wire - PE	10 V
Pulse-reset capacity	20 ms	Rated current I_N	300 mA
Rated voltage (DC)	5 V	Requirements category acc. to IEC 61643-21	C1, C2, C3, D1
Signal transmission properties (-3 dB)	1.2 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	4.7 Ω		

Further details of approvals

GOST certificate	GOST-Zertifikat
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Rated data UL

Certificate No. (UL)	E311081	UL certificate	UL 497b Certificate
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Ratings IECEx/ATEX/cUL

cUL certificate	cUL Certificate
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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

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Technical data

Approvals

Approvals



ROHS

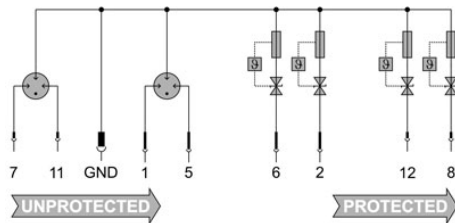
Conform

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

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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

