VSPC
VSPC 2CL 48VAC

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 16
D-32758 Detmold
Germany
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Fax: +49 5231 14-292083
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Analogue signal/current loop (CL) protection includes the following signals:

- Signals from current loops (analogue measurements of sensors over long distances) 4 – 20 mA, 0 – 20 mA etc.
- Two-wire, three-wire and four-wire, without a common reference potential
- e.g. level indication signals from voltage sensors (analogue measurements of sensors over short distances) 0 – 10 V, PT 100 etc .; e.g. temperature measurement
- Pluggable arrester, with 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 differences in potential
- Can be used in compliance with the IEC 62305 (D1, C1, C2 and C3) installation standard
- 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 2CL 48VAC
Order No.	8951490000
Version	Surge protection for instrumentation and control, 48 V, 68 V, 350 mA, IEC 61643-21
GTIN (EAN)	4032248742738
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	45 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	45	MTTF	2,537 Years
PFH in $1*10^{-9}$ per hour	1.95	SFF	95.67 %
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	85 V
Internal capacity, max. C_i	2 nF	Internal inductance, max. L_i	0 µH

General data

Colour	Orange	Design	Terminal, Miscellaneous
Optical function display	No	Protection degree	IP20
Segment	Instrumentation and Control	UL 94 flammability rating	V-0
Version	without 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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Rated data IEC / EN

Discharge current I_{max} (8/20µs) GND-PE	10 kA	Discharge current I_{max} (8/20µs) wire-PE	2 x 10 kA
Discharge current I_{max} (8/20µs) wire-wire	10 kA	Discharge current I_n (8/20µs) GND-PE	2.5 kA
Discharge current I_n (8/20µs) wire-PE	2.5 kA	Discharge current I_n (8/20µs) wire-wire	2.5 kA
Fuse	0.5 A	Lightning test current, I_{imp} (10/350 µs) GND-PE	2.5 kA
Lightning test current, I_{imp} (10/350 µs) Wire–PE	2.5 kA	Lightning test current, I_{imp} (10/350 µs) wire-wire	2.5 kA
Max. continuous voltage, Uc (AC)	60 V	Max. continuous voltage, Uc (DC)	85 V
Overload - failure mode	Modus 2	Protection level U_P (typ.)	< 800 V
Protection level on output side Wire-PE 1kV/µs, typically	450 V	Protection level on output side Wire-wire 1 kV/µs, typically	85 V
Protection level on output side Wire-wire 8/20 µs, typically	85 V	Protection level, U_P GND - PE	650 V
Protection level, U_P wire - PE	450 V	Protection level, U_P wire - wire	85 V
Pulse-reset capacity	500 ms	Rated current I_N	350 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)	4.8 MHz
Standards	IEC 61643-21	Surge current-carrying capacity C1	< 1 kA 8/20 µs
Surge current-carrying capacity C2	5 kA 8/20 µs	Surge current-carrying capacity C3	100 A 10/1000 µs
Surge current-carrying capacity D1	2.5 kA 10/350 µs	Voltage type	AC
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

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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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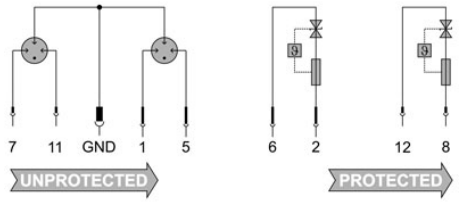
Drawings

Electric symbol



Circuit diagram

Category	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