

VSPC
VSPC RS485 2CH 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



Data surge protection

- for RS 422 and RS 485 signals
- Can also be connected as T branch with K21 wall-mounted housing

General ordering data

Type	VSPC RS485 2CH R
Order No.	8951670000
Version	Surge protection for instrumentation and control, 5 V, 5 V, 450 mA, IEC 61643-21
GTIN (EAN)	4032248742912
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	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	90.2	MTTF	1,266 Years
PFH in 1*10 ⁻⁹ per hour	6	SFF	93.35 %
SIL in compliance with IEC 61508	3		

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	11 nF	Internal inductance, max. L _i	0 μH

General data

Colour	orange	Design	Terminal, miscellaneous
Optical function display	green = OK; red = arrester is defective - replace	Protection degree	IP20
Segment	Measurement - Monitoring - Setting	UL 94 flammability rating	V-0
Version	with warning function / function indicator		

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-wire	10 kA
Discharge current I_n (8/20 μ s) wire-PE	2.5 kA
Insertion loss	113.7 MHz
Lightning test current, I_{imp} (10/350 μ s) Wire-PE	2 x 0.2 kA
Max. continuous voltage, U_c (AC)	5 V
Overload - failure mode	Modus 2
Protection level on output side Wire-PE 1kV/ μ s, typically	10 V
Protection level on output side Wire-wire 8/20 μ s, typically	15 V
Protection level, U_p wire - PE	35 V
Pulse-reset capacity	≤ 20 ms
Rated voltage (AC)	5 V
Requirements category acc. to IEC 61643-21	C1, C2, C3, D1
Signalling contact	U_N 250 V AC 0.1 A 1CO at VSPC R with VSPC control unit
Surge current-carrying capacity C1	< 1 kA 8/20 μ s
Surge current-carrying capacity C3	100 A 10/1000 μ s
Voltage type	AC/DC

Discharge current $I_{\max}$ (8/20 μ s) wire-PE	2 x 10 kA
Discharge current I_n (8/20 μ s) GND-PE	2.5 kA
Discharge current I_n (8/20 μ s) wire-wire	2.5 kA
Lightning test current, I_{imp} (10/350 μ s) GND-PE	0.2 kA
Lightning test current, I_{imp} (10/350 μ s) wire-wire	0.2 kA
Max. continuous voltage, U_c (DC)	6.4 V
Protection level U_p (typ.)	250 V
Protection level on output side Wire-wire 1 kV/ μ s, typically	10 V
Protection level, U_p GND - PE	500 V
Protection level, U_p wire - wire	15 V
Rated current I_N	450 mA
Rated voltage (DC)	5 V
Signal transmission properties (-3 dB)	113.6 MHz
Standards	IEC 61643-21
Surge current-carrying capacity C2	5 kA 8/20 μ s
Surge current-carrying capacity D1	2.5 kA 10/350 μ s
Volume resistance	2.20 Ω

Further details of approvals

GOST certificate	GOST-Zertifikat
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Connection data

Type of connection	Pluggable in VSPC BASE
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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	27-13-08-07
eClass 9.1	27-13-08-07		

Approvals

Approvals



ROHS	Conform
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Catalogue status 23.05.2019 / We reserve the right to make technical changes.

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Technical data

Downloads

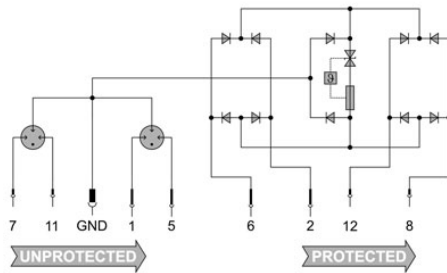
Approval/Certificate/Document of Conformity	SIL Paper CE PAPER Declaration of Conformity
Brochure/Catalogue	CAT 4.4 ELECTR 16/17 EN
Engineering Data	EPLAN, WSCAD
Engineering Data	STEP
User Documentation	Instruction sheet

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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

