

VSPC RS485 2CH R

Weidmüller Interfaces GmbH & Co. KG

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Under the protection of the data protection RS 485 come the following signals:

- Protection for wire connected serial data transmission – RS 485 or RS 422
- Pluggable arrester, with no-interrupt and impedance-neutral plug-in and pull-out
- Low residual voltage
- Can be used in accordance with the IEC 62305 and IEC61643-22 installation standards
- Can be tested with the V-TEST testing device
- Integrated PE foot, safely discharges up to 20 kA (8/20 µs) and 2.5 kA (10/350 µs) to PE

General ordering data

Version	Surge protection for instrumentation and control, with warning function / function indicator, U _P (L/N-PE) 250 V
Order No.	8951670000
Type	VSPC RS485 2CH R
GTIN (EAN)	4032248742912
Qty.	1 pc(s).

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Technical data

Dimensions and weights

Depth	69 mm	Depth (inches)	2.717 inch
Height	98 mm	Height (inches)	3.858 inch
Width	17.8 mm	Width (inches)	0.701 inch
Net weight	47 g		

Temperatures

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

Probability of failure

SIL in compliance with IEC 61508	3	MTTF	1,266 Years
SFF	93.35 %	λges	90.2
PFH in 1*10 ⁻⁹ per hour	6		

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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2.5 kA

2.5 kA

0.2 kA

0.2 kA

6.4 V

Modus 2

10 V

15 V

35 V

≤ 20 ms

5 V

C1, C2, C3, D1

U_N 250 V AC 0.1 A 1CO at

VSPC R with VSPC control

unit

< 1 kA 8/20 μs

100 A 10/1000 μs

AC/DC

Rated data IEC / EN

Discharge current I _{max} (8/20μs) GND-PE	10 kA	Discharge current I _{max} (8/20μs) wire-PE	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
Insertion loss	113.7 MHz	Lightning test current, I _{imp} (10/350 μs) GND-PE	0.2 kA
Lightning test current, I _{imp} (10/350 μs) Wire-PE	2 x 0.2 kA	Lightning test current, I _{imp} (10/350 μs) wire-wire	0.2 kA
Max. continuous voltage, U _c (AC)	5 V	Max. continuous voltage, U _c (DC)	6.4 V
Number of poles	1	Overload - failure mode	Modus 2
Protection level U _p (typ.)	250 V	Protection level on output side Wire-PE 1kV/μs, typically	10 V
Protection level on output side Wire-wire 1 kV/μs, typically	10 V	Protection level on output side Wire-wire 8/20 μs, typically	15 V
Protection level, U _p GND - PE	500 V	Protection level, U _p wire - PE	35 V
Protection level, U _p wire - wire	15 V	Pulse-reset capacity	≤ 20 ms
Rated current I _N	450 mA	Rated voltage (AC)	5 V
Rated voltage (DC)	5 V	Requirements category acc. to IEC 61643-21	C1, C2, C3, D1
Signal transmission properties (-3 dB)	113.6 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 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/DC
Volume resistance	2.20 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
ETIM 8.0	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	ECLASS 12.0	27-17-90-90

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Technical data

Tender specification sheets

Long specification	Surge protection plug for use in connection with the base element VSPC BASE 2CL for two floating-ground driven signal cables and ground, e.g. for bus systems. Two-stage protection circuit consisting of coarse protection, decoupling resistors and fine protection between the signal wires and additional coarse common mode voltage protection to earth as well as an integrated status display and remote monitoring option. 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. It is possible to mark the plug.	Short specification	www.weidmueller.com	Surge protection plug for base element VSPC BASE 2CL, transverse voltage coarse and fine protection for two floating-ground powered IT signal cables, coarse common mode voltage protection to earth. Version: 5V DC With optional remote monitoring.
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Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
SCIP	71e97bb7-979f-4330-94c0-20c629bb05e3

Important note

Product information	Mode 2: State where the voltage-limiting part of the SPD was short-circuited due to a very low impedance within the SPD. The line is inoperable, but the measuring equipment is still protected by means of a short-circuit.
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Approvals

Approvals	    
ROHS	Conform
UL File Number Search	UL Website
Certificate No. (UL)	E31 1081

Downloads

Approval/Certificate/Document of Conformity	SIL Paper EU Konformitätserklärung / EU Declaration of Conformity
Engineering Data	CAD data – STEP
Engineering Data	WSCAD
User Documentation	Beipackzettel / Instruction sheet
Catalogues	Catalogues in PDF-format
Brochures	

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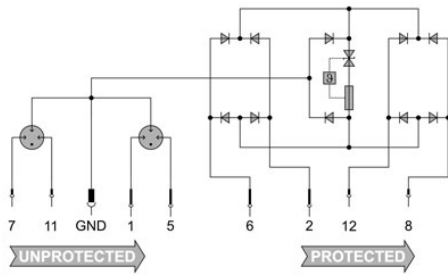
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Drawings

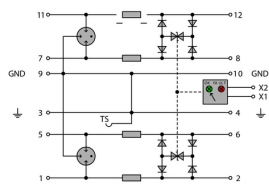
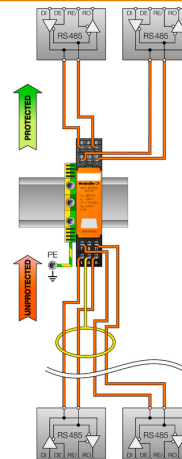
Electric symbol



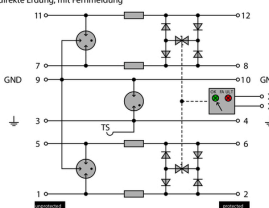
Circuit diagram

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



Complete module direct grounding, with remote signalling
Komplettmodul direkte Erdung, mit Fernmeldung



Complete module indirect grounding, with remote signalling
Komplettmodul indirekte Erdung, mit Fernmeldung
Komplettmodul