VSPC RS485 2CH

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 26
D-32758 Detmold
Germany

www.weidmueller.com

Data surge protection

- for RS 422 and RS 485 signal
- suitable as transient surge protection for fast data signals

General ordering data

Version	Surge protection for instrumentation and control, without warning function / function indicator, U_P(L/N-PE) 250 V
Order No.	8924670000
Type	VSPC RS485 2CH
GTIN (EAN)	4032248696314
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
Width	17.8 mm	Width (inches)	0.701 inch
Net weight	27.5 g		

Temperatures

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

Probability of failure

SIL in compliance with IEC 61508	3	MTTF	2,003 a
SFF	92.54 %	λges	57
PFH in $1*10^{-9}$ per hour	4.25		

Rated data UL

Certificate No. (UL)	E311081	UL certificate	UL 497b Certificate

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

Number of poles	1	Protection degree	IP20
Colour	orange		

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} (8/20µs) 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
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, Uc (AC)	5 V	Max. continuous voltage, Uc (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	No
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

Electrical data

Voltage type	AC/DC

Ratings IECEx/ATEX/cUL

cUL certificate	cUL Certificate

Guarantee

Time interval	5 years

Classifications

ETIM 6.0	EC000943	ETIM 7.0	EC000943
ETIM 8.0	EC000943	ETIM 9.0	EC000943
ETIM 10.0	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
ECLASS 13.0	27-17-90-90	ECLASS 14.0	27-17-90-90
ECLASS 15.0	27-17-90-90		

Creation date May 16, 2025 9:00:11 AM CEST

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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. 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	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

Environmental Product Compliance

RoHS Compliance Status	Compliant with exemption
RoHS Exemption (if applicable/known)	7a
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.

Approvals

Approvals	
Approvals MAMID	https://mdcop.weidmueller.com/mediadelivery/rendition/900_319222/-T1z1mm-S800/ https://mdcop.weidmueller.com/mediadelivery/rendition/900_319227/-T1z1mm-S800/ https://mdcop.weidmueller.com/mediadelivery/rendition/900_319238/-T1z1mm-S800/ https://mdcop.weidmueller.com/mediadelivery/rendition/900_319261/-T1z1mm-S800/
ROHS	Conform
UL File Number Search	UL Website
Certificate No. (UL)	E311081

Downloads

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

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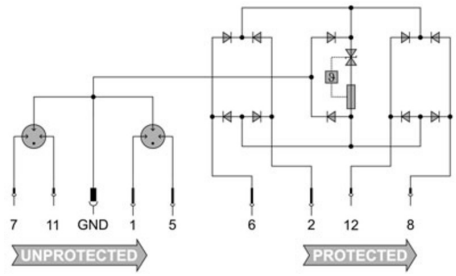
Drawings

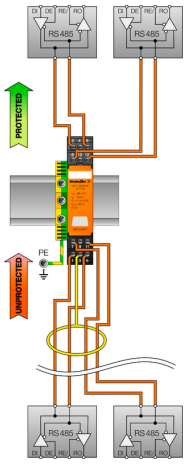
Electric symbol

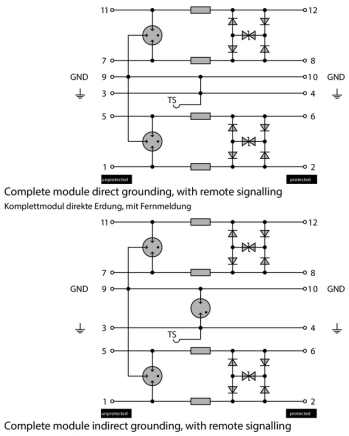


Circuit diagram

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





Komplettmodul