

## VSSC6 RS485 PA EX

**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

[www.weidmueller.com](http://www.weidmueller.com)



Overvoltage coupling along the conductor path may disturb or destroy sensitive signal inputs. It is important to provide protection in the immediate vicinity of I&C devices. Weidmüller's broad product range for the I&C sector offers products in a 2-piece, pluggable design and modular terminals for tension clamp or screw connection. These products are suitable for both binary and analogue signals. Weidmüller also offers other designs with integrated components such as gas discharge tubes or varistors. VARITECTOR stands for flexible and variable surge protection by Weidmüller, tested according to product standard IEC61643-21. The VARITECTOR series can be used in applications according to IEC 61643-22 / VDE 0845-3 for classes C1, C2, C3 and D1. The VARITECTOR SPC, SSC and MCZ OVP product families optimally combine electrical and mechanical properties. Size and easy handling play an important role. This surge protection is suited for confined spaces in industrial and process automation as well as in building automation applications.

### General ordering data

Version	Surge protection for instrumentation and control, Surge protection for measurement and control, $U_p(L/N-PE) \leq 2 \text{ kV}$
Order No.	<a href="#">1065020000</a>
Type	VSSC6 RS485 PA EX
GTIN (EAN)	4032248830251
Qty.	1 pc(s).

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## Technical data

## Dimensions and weights

Depth	81 mm	Depth (inches)	3.189 inch
Height	88.5 mm	Height (inches)	3.484 inch
Width	12.4 mm	Width (inches)	0.488 inch
Net weight	56 g		

## Temperatures

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

## Probability of failure

SIL PAPER	SIL Paper	SIL in compliance with IEC 61508	3
MTTF	3,936 Jahre	SFF	93.97 %
λges	29	PFH in 1*10 <sup>-9</sup> per hour	1.75

## Environmental Product Compliance

REACH SVHC	Lead 7439-92-1	SCIP	71e97bb7-979f-4330-94c0-20c629b
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## Protection Ex - Data

ATEX - dust labelling	II 1 D Ex ia IIIC T135 °C ... T85 °C Da	ATEX - gas labelling	II 1 G Ex ia IIC T4... T6 Ga
IECEx - dust labelling	II 1 D Ex ia IIIC T135 °C ... T85 °C Da	IECEx - gas labelling	II 1 G Ex ia IIC T4... T6 Ga
Input power, max. P <sub>i</sub>	0.75 W	Input voltage, max. U <sub>i</sub>	35 V
Internal capacity, max. C <sub>i</sub>	1 nF	Internal inductance, max. L <sub>i</sub>	0 μH
Temperature class T4/135°C (-40°C ... +120 °C) li	300 mA	Temperature class T5/100°C (-40 °C ... +85 °C) li	300 mA
Temperature class T6/85 °C (-40 °C ... +70 °C) li	300 mA		

## CSA protection data

Gas group C	IIB	Gas group D	IIA
Gas groups A, B	IIC	Input current, max. I <sub>i</sub>	300 mA
Input voltage, max. U <sub>i</sub>	35 V	Internal capacity, max. C <sub>i</sub>	1 nF
Internal inductance, max. L <sub>i</sub>	0 μH		

## General data

Colour	Light Blue	Design	Terminal
Isolating function	No	Optical function display	No
Protection degree	IP20	Rail	TS 35
Segment	Measurement - Monitoring - Setting	UL 94 flammability rating	V-0
Version	Surge protection for measurement and control		

## Insulation coordination acc. to EN 50178

Pollution severity	2	Surge voltage category	III
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Creation date September 15, 2022 11:12:31 PM CEST

Catalogue status 09.09.2022 / We reserve the right to make technical changes.

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### Rated data IEC / EN

Dielectric strength at FG against PE	≥ 500 V	Discharge current $I_{max}$ (8/20μs) wire-PE	5 kA
Discharge current $I_{max}$ (8/20μs) wire-wire	5 kA	Discharge current $I_n$ (8/20μs) wire-PE	2.5 kA
Discharge current $I_n$ (8/20μs) wire-wire	2.5 kA	Discharge current, max. (8/20 μs)	10 kA
Input voltage, max. $U_i$	35 V	Insertion loss	250 MHz
Lightning test current $I_{imp}$ (10/350 μs)	0.5 kA	Lightning test current, $I_{imp}$ (10/350 μs) Wire-PE	0.5 kA
Max. continuous voltage, $U_c$ (DC)	35 V	Number of poles	1
Overload - failure mode	Modus 2	Protection level $U_p$ (typ.)	≤ 2 kV
Pulse-reset capacity	≤ 15 ms	Rated current $I_N$	300 mA
Rated voltage (DC)	12 V	Requirements category acc. to IEC 61643-21	C2, C3, D1
Signal transmission properties (-3 dB)	113.6 MHz	Standards	IEC61643-21:2009, DIN EN 60079-0:2009, DIN EN 60079-26:2007, DIN EN 61241-11:2006
Surge current-carrying capacity C2	2.5 kA 8/20 μs 5 kV 1.2/50 μs	Surge current-carrying capacity C3	10 A 10/1000 μs
Surge current-carrying capacity D1	0.5 kA 10/350 μs	Voltage type	DC
Volume resistance	1.8 Ω 10 %		

### Further details of approvals

GOST certificate	GOST-Zertifikat
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### Connection data

Stripping length	10 mm	Type of connection	Screw connection
Tightening torque, min.	0.5 Nm	Tightening torque, max.	0.8 Nm
Clamping range, min.	0.5 mm <sup>2</sup>	Clamping range, max.	4 mm <sup>2</sup>
Wire cross-section, solid, min.	0.5 mm <sup>2</sup>	Wire cross-section, solid, max.	6 mm <sup>2</sup>
Conductor cross-section, flexible, AEH (DIN 46228-1), min.	0.5 mm <sup>2</sup>	Conductor cross-section, flexible, AEH (DIN 46228-1), max.	4 mm <sup>2</sup>
Connection cross-section, stranded, min.	0.5 mm <sup>2</sup>	Connection cross-section, stranded, max.	4 mm <sup>2</sup>

### Ratings IECEx/ATEX/cUL

ATEX - dust labelling	II 1 D Ex ia IIIC T135 °C ... T85 °C Da	ATEX - gas labelling	II 1 G Ex ia IIC T4... T6 Ga
ATEX certificate	ATEX Certificate	IEC Ex certificate	IECEX Zertifikat
IECEX - dust labelling	II 1 D Ex ia IIIC T135 °C ... T85 °C Da	IECEX - gas labelling	II 1 G Ex ia IIC T4... T6 Ga
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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### Tender specification sheets

Long specification	Surge protection in a one piece, 6.2 mm wide DIN rail module for a RS 422 / RS 485 Profibus PA signal circuit with 12 V DC, 2-wire technology. A RS 422 / RS 485 data signal with max. 0.6A can be protected here. When the terminal is fitted, a simultaneous electrically conducting contact is made between the mounting rail (earth) and the reference potential (ground) of the protection circuit in the terminal. Optical identification of the terminal based on the type of protected switching and the voltage level. The terminal can be labelled or marked.	Short specification
		Surge protection in a one piece, 6.2 mm wide DIN rail module for a RS 422 / RS 485 Profibus signal circuit with 2-wire technology. Version: 12V DC

### 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

### Downloads

Approval/Certificate/Document of Conformity	<a href="#">SIL Paper</a> <a href="#">EU Konformitätserklärung / EU Declaration of Conformity</a>
Engineering Data	<a href="#">CAD data – STEP</a>
Engineering Data	<a href="#">EPLAN, WSCAD</a>
User Documentation	<a href="#">Beipackzettel / Instruction sheet</a> <a href="#">Beipackzettel / Instruction sheet</a>
Catalogues	<a href="#">Catalogues in PDF-format</a>
Brochures	

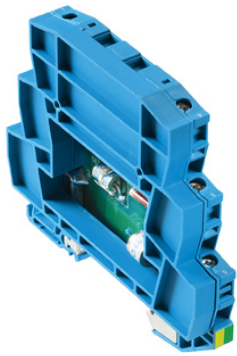
**Data sheet**

**VSSC6 RS485 PA EX**

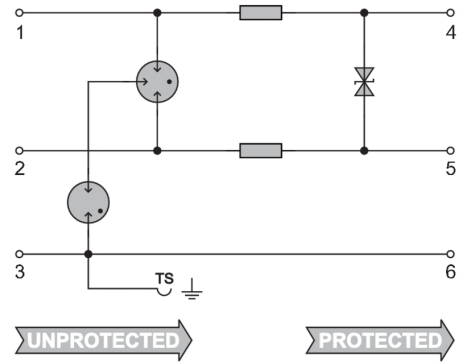
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**Drawings**



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Circuit diagram



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