

**VSSC6 RS485 PA EX****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, 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)	403224883025 1
Qty.	1 pc(s).

Creation date May 27, 2022 9:51:20 AM CEST

Catalogue status 20.05.2022 / We reserve the right to make technical changes.

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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
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**Protection Ex - Data**

ATEX - dust labelling	II 1 D Ex ia III C 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 III C 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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**Technical data**
**Rated data IEC / EN**

Dielectric strength at FG against PE	≥ 500 V	Discharge current $I_{\max}$ (8/20 $\mu$ s) wire-PE	5 kA
Discharge current $I_{\max}$ (8/20 $\mu$ s) wire-wire	5 kA	Discharge current $I_n$ (8/20 $\mu$ s) wire-PE	2.5 kA
Discharge current $I_n$ (8/20 $\mu$ s) wire-wire	2.5 kA	Discharge current, max. (8/20 $\mu$ s)	10 kA
Input voltage, max. $U_i$	35 V	Insertion loss	250 MHz
Lightning test current $I_{\text{imp}}$ (10/350 $\mu$ s)	0.5 kA	Lightning test current, $I_{\text{imp}}$ (10/350 $\mu$ s) 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 $\mu$ s 5 kV 1.2/50 $\mu$ s	Surge current-carrying capacity C3	10 A 10/1000 $\mu$ s
Surge current-carrying capacity D1	0.5 kA 10/350 $\mu$ s	Voltage type	DC
Volume resistance	1.8 $\Omega$ 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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## Technical data

### Tender specification sheets

Long specification	Short specification
<p>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.</p>	<p>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</p>

### 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	

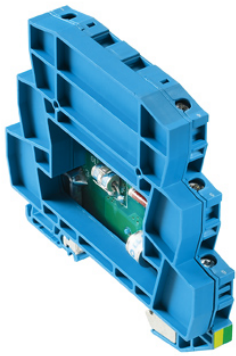
**Data sheet**

**VSSC6 RS485 PA EX**

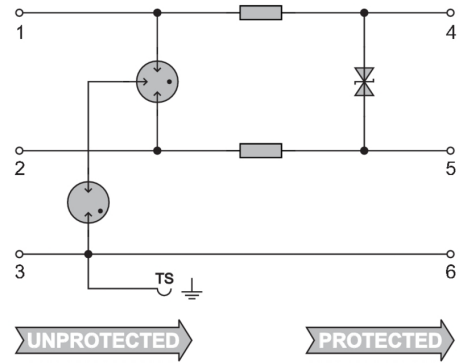
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**Drawings**



Similar to illustration



Circuit diagram

