

## VSSC6 RTD EX

Weidmüller Interface GmbH & Co. KG  
Klingenbergsstraße 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
Order No.	<a href="#">1130670000</a>
Type	VSSC6 RTD EX
GTIN (EAN)	4032248911165
Qty.	1 items

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## Technical data

## Approvals

Approvals



CSAEX ATEX



IECEx

RoHS

Conform

## Dimensions and weights

Depth	81 mm
Height	88.5 mm
Width	12.4 mm
Net weight	15 g

Depth (inches)	3.189 inch
Height (inches)	3.4842 inch
Width (inches)	0.4882 inch

## Temperatures

Storage temperature	-40 °C...80 °C
Operating temperature	-40 °C...70

Ambient temperature	-40 °C...70 °C
Humidity	5...96 %

## Probability of failure

SIL in compliance with IEC 61508	3
SFF	94.67 %
PFH in 1*10-9 per hour	3.25

MTTF	1871 a
λages	61

## Environmental Product Compliance

RoHS Compliance Status	Compliant with exemption
RoHS Exemption (if applicable/known)	7a, 7cl
REACH SVHC	Lead 7439-92-1
SCIP	71e97bb7-979f-4330-94c0-20c629bb05e3

## 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. PI	0.75 W	Internal capacity, max. CI	7 nF
Internal inductance, max. LI	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 D	IIA	Gas groups A, B	IIC
Input-current, max. II	300 mA	Gas group C	IIB
Internal inductance, max. LI	0 µH	Internal capacity, max. CI	7 nF

## General data

Optical function display	No	Segment	Measurement - Monitoring - Setting
Version	Surge protection for measurement and control	UL 94 flammability rating	V-0

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## Technical data

Colour	Light Blue	Protection degree	IP20
Mounting rail	TS 35	Isolating function	No

## Insulation coordination acc. to EN 50178

Surge voltage category	III	Pollution severity	2
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## Rated data IEC / EN

Rated voltage (DC)	1 V	Rated current IN	300 mA
Protection level, UP wire - wire	1.8 kV	Voltage type	DC
Volume resistance	1.8 Ω 10 %	Frequency range, max.	120 MHz
Standards	IEC 62305, IEC 61643-21	Lightning test current limp (10/350 µs)	0.5 kA
Discharge current, max. (8/20 µs)	10 kA	Dielectric strength at FG against PE	≥ 500 V
Requirements category acc. to IEC 61643-21	C2, D1	Surge current-carrying capacity D1	0.5 kA 10/350 µs
Surge current-carrying capacity C3	10 A 10/1000 µs	Pulse-reset capacity	≤ 10 ms
Signal transmission properties (-3 dB)	120 Mhz	Lightning test current, limp (10/350 µs)	0.5 kA
Overload - failure mode	Modus 2	Wire-PE	
Discharge current In (8/20µs) wire-wire	2.5 kA	Rated load current IL	300 mA
Discharge current Imax (8/20µs) wire-PE	5 kA	Discharge current In (8/20µs) wire-PE	2.5 kA
Discharge current Imax (8/20µs) wire-wire		Discharge current Imax (8/20µs) wire-PE	5 kA
Surge current-carrying capacity C2	2.5 kA 8/20 µs 5 kV 1.2/50 µs		

## Further details of approvals

GOST certificate	GOST-Zertifikat - PDF/7950_n1-n4.pdf (application/pdf)
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## Connection data

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>		

## Electrical data

Voltage type	DC
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## General data

Protection degree	IP20	Colour	Light Blue
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## Ratings IECEx/ATEX/cUL

ATEX - dust labelling	II 1 D Ex ia IIC 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

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IECEx - dust labelling	II 1 D Ex ia IIC T135 °C ... T85 °C Da	IECEx - gas labelling	II 1 G Ex ia IIC T4... T6 Ga
Marking EN 60079	Ex ec nC IIC T4 Gc	cUL certificate	cUL Certificate - pdf/ VSSC.PDF (application/ pdf)

## 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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## Classifications

ETIM 8.0	EC000943	ETIM 9.0	EC000943
ETIM 10.0	EC000943	ECLASS 14.0	27-17-15-02
ECLASS 15.0	27-17-15-02		

## Tender specification sheets

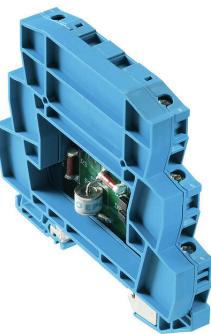
Long specification	Surge protection in a one piece, 6.2 mm wide DIN rail module for a PT100 signal circuit with 12 V DC, 3-wire technology. A 3-wire signal with max. 0.3A can be protected here. When the terminal is fitted, there is a simultaneous sparkover gap created to the high-impedance earth between the mounting rail (earth) and the reference potential (ground) of the protective switch. Optical identification of the terminal based on the type of protected switching and the voltage level. The terminal can be labelled or marked. ATEX version. Tested to Ex area ignition protection types: Ex ia IIC / Ex iaD	Short specification	Surge protection in a one piece, 12.4 mm wide terminal rail module for a PT 100 signal circuit in 3-wire technology. Version: 5 VDC ATEX version. Tested according to explosion protection types in EX areas: Ex ia IIC / Ex iaD.
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**VSSC6 RTD EX**

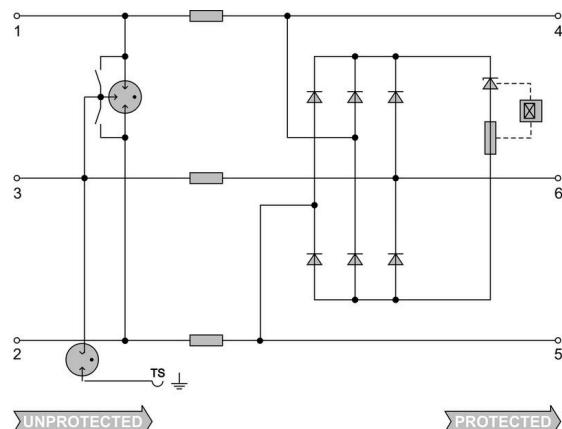
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**Drawings**



Similar to illustration



Circuit diagram



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**Accessories****Accessories (end plates)**

End plates (AP) for the VSSC product series in light blue and black

**General ordering data**

Type	AP VSSC6 LB	Version
Order No.	<a href="#">1067230000</a>	VSSC, End plate
GTIN (EAN)	4032248999866	
Qty.	50 ST	

**Blank**

The Dekafix (DEK) marker is the universal marker for all conductor and plug-in connectors as well as for electronic sub-assemblies. The system is ideal for short number sequences and covers a wide range of ready-printed markers.

Strips for fast installation in only one work step. The printing is easy to read, rich in contrast and available in various widths.

- Large range of ready-to-use markers
- Strips for fast installation
- Terminal markers, suitable for all Weidmüller cable connectors
- Available as blank MultiCard or with standard printing

For custom printing: Please send us a file of our labeling software M-Print PRO or M-Print PRO Online (without installation) for your labeling specifications.

**General ordering data**

Type	DEK 5/5 MC NE WS	Version
Order No.	<a href="#">1609801044</a>	Dekafix, Terminal marker, 5 x 5 mm, Pitch in mm (P): 5.00
GTIN (EAN)	4008190397111	Weidmueller, white
Qty.	1000 ST	

**SnapMark**

SnapMark - this tag carrier has been developed specifically for the I-series double-level terminal IDK 1.5N. The flexible pivot mechanism allows cross-connections to be easily installed or removed. It can hold four DEK 5 labelling tags or two WS 10/5 Middle connector markers.

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**Accessories****General ordering data**

Type	SNAPMARK I	Version
Order No.	<a href="#">1805880000</a>	Group markers, Terminal marker, 23 x 5 mm, Pitch in mm (P): 5.00
GTIN (EAN)	4032248273614	Weidmüller, white
Qty.	50 ST	