

VSSC6 TR SL FG 24VAC/DC EX

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com



Similar to illustration



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, $U_p(L/N-PE) \leq 1870 \text{ V}$
Order No.	1421440000
Type	VSSC6 TR SL FG 24VAC/DC EX
GTIN (EAN)	4050118225228
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	0.081 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	1,342 Jahre	SFF	96.67 %
λges	54	PFH in 1*10 ⁻⁹ per hour	1.8

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 IIC 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 IIC T135 °C ... T85 °C Da	IECEx - gas labelling	II 1 G Ex ia IIC T4... T6 Ga
Input power, max. P _i	0.75 W	Input voltage, max. U _i	42 V
Internal capacity, max. C _i	2 nF	Internal inductance, max. L _i	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 _i	300 mA
Input voltage, max. U _i	42 V	Internal capacity, max. C _i	2 nF
Internal inductance, max. L _i	0 μH		

General data

Colour	Light Blue	Design	Terminal
Isolating function	Yes	Optical function display	No
Protection degree	IP20	Rail	TS 35
Segment	Measurement - Monitoring - Setting	Testing option	Functional screw with test plug receptacle, connections 1, 2, 4, 5
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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Rated data IEC / EN

Dielectric strength at FG against PE	≥ 500 V	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) 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	42 V	Insertion loss	250 MHz
Lightning test current I_{imp} (10/350 μs)	1 kA	Lightning test current, I_{imp} (10/350 μs) Wire-PE	0.5 kA
Max. continuous voltage, U_c (AC)	30 V	Max. continuous voltage, U_c (DC)	42 V
Number of poles	1	Overload - failure mode	Modus 2
Protection level U_p (typ.)	≤ 1870 V	Protection level on output side Wire-wire	1 kV/μs, typically
Protection level, U_p GND - PE	2,200 V	Protection level, U_p wire - wire	70 V
Pulse-reset capacity	≤ 20 ms	Rated current I_N	300 mA
Rated voltage (AC)	24 V	Rated voltage (DC)	34 V
Requirements category acc. to IEC 61643-21	C2, C3, D1	Signal transmission properties (-3 dB)	270 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	50 A 10/1000 μs	Surge current-carrying capacity D1	1 kA 10/350 μs
Voltage type	AC/DC	Volume resistance	1.8 Ω 10 %

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 ²	Clamping range, max.	4 mm ²
Wire cross-section, solid, min.	0.5 mm ²	Wire cross-section, solid, max.	6 mm ²
Conductor cross-section, flexible, AEH (DIN 46228-1), min.	0.5 mm ²	Conductor cross-section, flexible, AEH (DIN 46228-1), max.	4 mm ²
Connection cross-section, stranded, min.	0.5 mm ²	Connection cross-section, stranded, max.	4 mm ²

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
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

Surge protection in a one piece, 12.4 mm wide terminal rail module for a floating-ground, intrinsically safe signal circuit with 48 VUC in 2-wire technology. A current loop with max. 0.6 A can be protected here. Each signal path can be opened using an isolator. When the terminal is fitted, a sparkover gap is simultaneously created to the high-impedance earth between the terminal rail (earth) and the reference potential (ground) of the protective circuit. Optical identification of the terminal based on the type of protective circuit and the voltage level. The terminal can be labelled.

Short specification

Surge protection in a one piece, 12.4 mm wide terminal rail module for an intrinsically safe, floating-ground driven signal circuit with 2-wire technology and a common wire. Each signal path can be opened using an isolator. Version: 48 VUC

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



ROHS

Conform

Downloads

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

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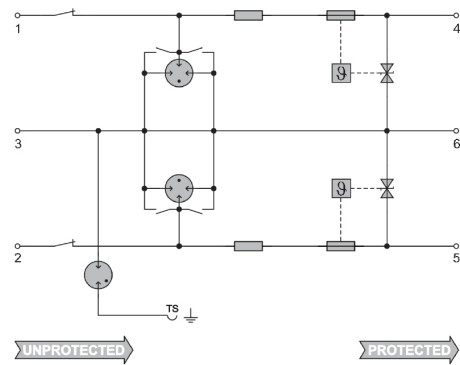
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Drawings



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Circuit diagram

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