Data sheet

VSSC4 CL FG 12VDC 0.5A

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 industrical 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, UP(L/N-PE) ≤ 1500 V
Order No.	1063760000
Type	VSSC4 CL FG 12VDC 0.5A
GTIN (EAN)	4032248829217
Qty.	10 items

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Technical data

Approvals

Approvals	
ROHS	Conform
UL File Number Search	UL Website
Certificate No. (UL)	E311081

Dimensions and weights

Depth	58.5 mm	Depth (inches)	2.3031 inch
Height	76 mm	Height (inches)	2.9921 inch
Width	6.2 mm	Width (inches)	0.2441 inch
Net weight	27.4 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	3936 a
SFF	93.28 %	λges	29
PFH in 1*10-9 per hour	1.95		

Environmental Product Compliance

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

Rated data UL

Certificate No. (UL)	E311081	UL certificate	UL Zertifikat - PDF/ E311081VOL1SEC3.pdf (application/pdf)

CSA protection data

Gas group D	IIA	Gas groups A, B	IIC
Input-current, max. II	500 mA	Gas group C	IIB
Internal inductance, max. LI	0 µH	Internal capacity, max. CI	1 nF
Input voltage, max. Ui	15 V		

General data

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

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Insulation coordination acc. to EN 50178

Surge voltage category	III	Pollution severity	2

Rated data IEC / EN

Number of poles	1	Rated voltage (DC)	12 V
Rated current IN	500 mA	Protection level UP (typ.)	≤ 1500 V
Voltage type	DC	Fuse protection	0.5 A
Volume resistance	1.8 Ω 10 %	Standards	IEC 61643-21, HART-compatible
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, C3, D1
Insertion loss	791.76 kHz	Max. continuous voltage, Uc (DC)	15 V
Surge current-carrying capacity D1	0.5 kA 10/350 µs	Surge current-carrying capacity C3	50 A 10/1000 µs
Pulse-reset capacity	≤ 20 ms	Signal transmission properties (-3 dB)	750 KHz
Lightning test current, limp (10/350 µs) Wire-PE	0.5 kA	Overload - failure mode	Modus 2
Discharge current In (8/20µs) wire-wire	2.5 kA	Discharge current In (8/20µs) wire-PE	2.5 kA
Discharge current Imax (8/20µs) wire-PE	5 kA	Discharge current Imax (8/20µs) wire-wire	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)

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 mm²	Clamping range, max.	4 mm²
Wire cross-section, solid, min.	0.5 mm²	Wire cross-section, solid, max.	6 mm²
Conductor cross-section, flexible, AEH (DIN 46228-1), min.	0.5 mm²	Conductor cross-section, flexible, AEH (DIN 46228-1), max.	4 mm²
Connection cross-section, stranded, min.	0.5 mm²	Connection cross-section, stranded, max.	4 mm²

Electrical data

Voltage type	DC

General data

Number of poles	1	Protection degree	IP20
Colour	black		

Ratings IECEx/ATEX/cUL

cUL certificate	cUL Certificate - pdf/VSSC.PDF (application/pdf)

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Technical data

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.

Classifications

ETIM 7.0	EC000943	ETIM 8.0	EC000943
ETIM 9.0	EC000943	ETIM 10.0	EC000943
ECLASS 12.0	27-17-15-01	ECLASS 13.0	27-17-15-01
ECLASS 14.0	27-17-15-01	ECLASS 15.0	27-17-15-01

Tender specification sheets

Long specification	Surge protection in a one piece, 6.2 mm wide DIN rail module for a floating-ground driven signal circuit with 12 V DC, 2-wire technology. A current loop with max. 0.5 A 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.	Short specification	Surge protection in a one piece, 6.2 mm wide DIN rail module for a floating-ground driven signal circuit with 2-wire technology. Version: 12V DC

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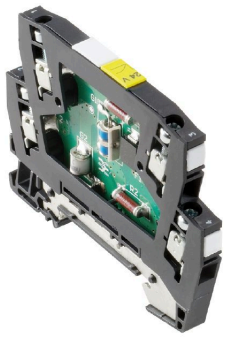
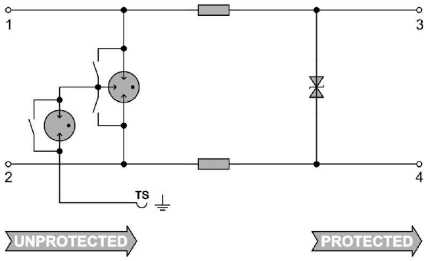
Drawings



Similar to illustration



Circuit diagram