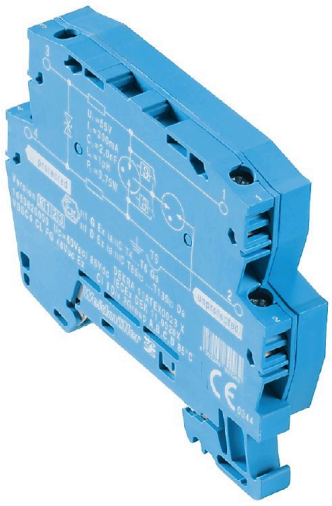
Data sheet

VSSC4 CL FG 48VAC/DC EX

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 26
D-32758 Detmold
Germany

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 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) ≤ 2000 V
Order No.	1063820000
Type	VSSC4 CL FG 48VAC/DC EX
GTIN (EAN)	4032248829262
Qty.	1 ST

VSSC4 CL FG 48VAC/DC EX

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Technical data

Approvals

Approvals	
ROHS	Conform

Dimensions and weights

Depth	58.5 mm	Depth (inches)	2.3031 inch
Height	76 mm	Height (inches)	2.9921 inch
Width	12.4 mm	Width (inches)	0.4882 inch
Net weight	39.8 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

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	Input voltage, max. Ui	55 V
Internal capacity, max. CI	1 nF	Internal inductance, max. LI	0 µH
Temperature class T4/135°C (-40°C ... +120 °C) Ii	300 mA	Temperature class T5/100°C (-40 ° C ... +85 °C) Ii	300 mA
Temperature class T6/85 °C (-40 °C ... +70 °C) Ii	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	1 nF
Input voltage, max. Ui	55 V		

Data sheet

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Technical data

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	Light Blue
Protection degree	IP20	Rail	TS 35
Isolating function	No		

Insulation coordination acc. to EN 50178

Surge voltage category	III	Pollution severity	2

Rated data IEC / EN

Number of poles	1	Rated voltage (AC)	48 V
Rated voltage (DC)	68 V	Rated current IN	300 mA
Protection level UP (typ.)	≤ 2000 V	Voltage type	AC/DC
Volume resistance	1.8 Ω 10 %	Standards	IEC61643-21:2009, DIN EN 60079-0.2009, DIN EN 60079-26:2007, DIN EN 61241-11:2006, 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	5.34 MHz	Max. continuous voltage, Uc (AC)	60 V
Max. continuous voltage, Uc (DC)	85 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	≤ 15 ms
Signal transmission properties (-3 dB)	5 Mhz	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	Input voltage, max. Ui	55 V
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	AC/DC

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Technical data

General data

Number of poles	1	Protection degree	IP20
Colour	Light Blue		

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 - 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.

Classifications

ETIM 7.0	EC000943	ETIM 8.0	EC000943
ETIM 9.0	EC000943	ETIM 10.0	EC000943
ECLASS 12.0	27-17-15-02	ECLASS 13.0	27-17-15-02
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, 12.4 mm wide terminal rail module for an intrinsically safe, floating-ground signal circuit with 48 VDC in 2-wire technology. A current loop (Ex ia) with max. 0.3 A can be protected here. 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. Suitable for ATEX applications. Tested according to explosion protection types in EX areas: Ex ia IIC / Ex iaD.	Short specification	Surge protection in a one piece, 12.4 mm wide terminal rail module for an intrinsically safe, floating-ground signal circuit in 2-wire technology. Version: 48 VDC Suitable for ATEX applications

VSSC4 CL FG 48VAC/DC EX

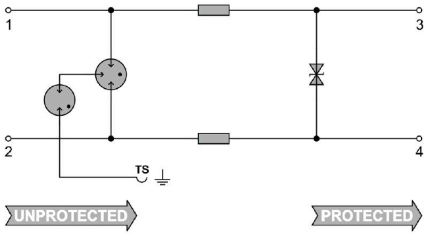
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Drawings



Similar to illustration



Circuit diagram

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Accessories

Accessories (end plates)

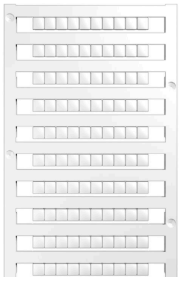


End plates (AP) for the VSSC product series in light blue and black

General ordering data

Type	AP VSSC4 LB	Version
Order No.	1067240000	VSSC, End plate
GTIN (EAN)	4032248999873	
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.	1609801044	Dekafix, Terminal marker, 5 x 5 mm, Pitch in mm (P): 5.00
GTIN (EAN)	4008190397111	Weidmueller, white
Qty.	1000 ST	