

## VSSC6 TRCL24VAC/DC0.5A

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="#">1064230000</a>
Type	VSSC6 TRCL24VAC/DC0.5A
GTIN (EAN)	4032248829590
Qty.	10 items

## VSSC6 TRCL24VAC/DC0.5A

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

[www.weidmueller.com](http://www.weidmueller.com)

## Technical data

## Approvals

## Approvals



CSAEX



ROHS

Conform

UL File Number Search

[UL Website](#)

Certificate No. (UL)

E311081

## Dimensions and weights

Depth	81 mm
Height	88.5 mm
Width	6.2 mm
Net weight	43.4 g

Depth (inches)	3.189 inch
Height (inches)	3.4842 inch
Width (inches)	0.2441 inch

## Temperatures

Storage temperature	-40 °C...80 °C
Humidity	5...96 %

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

## Probability of failure

SIL in compliance with IEC 61508	2
SFF	89.74 %
PFH in 1*10-9 per hour	1.95

MTTF	6008 a
λges	19

## 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

Internal inductance, max. LI	0 µH
Internal capacity, max. CI	1 nF
Input voltage, max. Ui	42 V

## Rated data UL

Certificate No. (UL)	E311081
----------------------	---------

UL certificate	<a href="#">UL Zertifikat - PDF/ E311081VOL1SEC3.pdf (application/pdf)</a>
----------------	--

## CSA protection data

Gas group D	IIA
Input-current, max. II	500 mA
Internal inductance, max. LI	0 µH
Input voltage, max. Ui	42 V

Gas groups A, B	IIC
Gas group C	IIB
Internal capacity, max. CI	1 nF

## General data

Optical function display	No
Version	Surge protection for measurement and control

Segment	Measurement - Monitoring - Setting
Design	Terminal

UL 94 flammability rating	V-0
Protection degree	IP20

Colour	black
Mounting rail	TS 35

## VSSC6 TRCL24VAC/DC0.5A

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

[www.weidmueller.com](http://www.weidmueller.com)

## Technical data

Isolating function	Yes	Testing option	Functional screw with test plug receptacle, connections 1, 2, 4, 5
--------------------	-----	----------------	--

## Insulation coordination acc. to EN 50178

Surge voltage category	III	Pollution severity	2
------------------------	-----	--------------------	---

## Rated data IEC / EN

Number of poles	1	Rated voltage (AC)	24 V
Rated voltage (DC)	34 V	Rated current IN	500 mA
Protection level on output side Wire-wire 70 V 1 kV/μs, typically		Voltage type	AC/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	Requirements category acc. to IEC 61643-21	C2, C3, D1
Insertion loss	250 MHz	Max. continuous voltage, Uc (AC)	30 V
Max. continuous voltage, Uc (DC)	42 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	≤ 170 ms
Signal transmission properties (-3 dB)	270 Mhz	Lightning test current, limp (10/350 μs)	0.5 kA
Overload - failure mode	Modus 2	Wire-PE	
Protection level UP for C1 with 500V/250A (wire-wire)	62 V	Rated load current IL	500 mA
Discharge current In (8/20μs) wire-PE	2.5 kA	Discharge current In (8/20μs) wire-wire	2.5 kA
Discharge current Imax (8/20μs) wire-wire	5 kA	Discharge current Imax (8/20μs) wire-PE	5 kA
Protection level UP for D1 with 0.5kA (wire-wire)	94 V	Protection level UP for C3 with 1kV/μs (wire-wire)	55 V
Protection level UP for C2 with 10kV/5kA (wire-wire)	108 V	Protection level UP for C3 with 1kV/μs (wire-PE)	572 V
Protection level UP for C1 with 500V/250A (wire-PE)	456 V	Surge current-carrying capacity C2	2.5 kA 8/20 μs 5 kV 1.2/50 μs
		Protection level UP for C2 with 10kV/5kA (wire-PE)	960 V

## 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 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	AC/DC
--------------	-------

## VSSC6 TRCL24VAC/DC0.5A

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

[www.weidmueller.com](http://www.weidmueller.com)

## Technical data

## General data

Number of poles	1	Protection degree	IP20
Colour	black		

## Ratings IECEx/ATEX/cUL

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

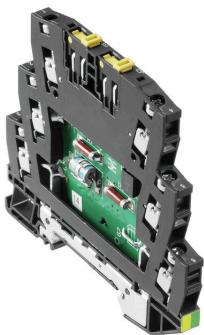
## Tender specification sheets

Long specification	Surge protection in a one piece, 6.2 mm wide DIN rail module for a floating-ground signal circuit with 24 V UC, 2-wire technology. Each signal path can be opened using an isolator. A current loop 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.	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 and a common wire. Each signal path can be opened using an isolator. Version: 24V UC
--------------------	--	---------------------	--

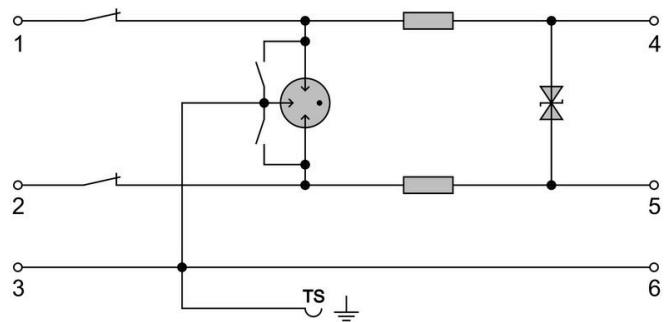
**VSSC6 TRCL24VAC/DC0.5A**

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

[www.weidmueller.com](http://www.weidmueller.com)

**Drawings**

Similar to illustration



UNPROTECTED

PROTECTED

Circuit diagram



## VSSC6 TRCL24VAC/DC0.5A

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

[www.weidmueller.com](http://www.weidmueller.com)

## Accessories

## Accessories (end plates)



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

## General ordering data

Type	AP VSSC	Version
Order No.	<a href="#">1063110000</a>	VSSC, End plate
GTIN (EAN)	4032248947553	
Qty.	50 ST	

## Testadapter and testsockets



Test adapters and test plugs are used for the electrical connection between terminal blocks and the test equipment. In this way, an electrical contact can be established in the wired state and measurements can be done easily.

## General ordering data

Type	PS 2.3 RT	Version
Order No.	<a href="#">0180400000</a>	Test adapter (terminal), 230 V, 20 mA
GTIN (EAN)	4008190060121	
Qty.	20 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.

**VSSC6 TRCL24VAC/DC0.5A**

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

[www.weidmueller.com](http://www.weidmueller.com)

**Accessories****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	Weidmüller, 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.

**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	