

**VSPC  
VSPC RS485 2CH**

**Weidmüller Interface GmbH & Co. KG**  
Klingenbergstraße 26  
D-32758 Detmold  
Germany  
Fon: +49 5231 14-0  
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www.weidmueller.com

**Data surge protection**

- for RS 422 and RS 485 signals
- Can also be connected as T branch with K21 wall-mounted housing

**General ordering data**

Type	VSPC RS485 2CH
Order No.	<a href="#">8924670000</a>
Version	Surge protection for instrumentation and control, 5 V, 5 V, 450 mA, IEC 61643-21
GTIN (EAN)	4032248696314
Qty.	1 pc(s).

Creation date May 1, 2020 5:02:37 AM CEST

Catalogue status 17.04.2020 / We reserve the right to make technical changes.

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**Technical data****Dimensions and weights**

Width	17.8 mm	Width (inches)	0.701 inch
Height	90 mm	Height (inches)	3.543 inch
Depth	69 mm	Depth (inches)	2.717 inch
Net weight	27.5 g		

**Temperatures**

Humidity	5...96 %	Operating temperature, max.	70 °C
Operating temperature, min.	-40 °C	Storage temperature, max.	80 °C
Storage temperature, min.	-40 °C	Operating temperature	-40 °C...70 °C
Storage temperature	-40 °C...80 °C		

**Probability of failure**

λges	57	MTTF	2,003 Years
PFH in 1*10 <sup>-9</sup> per hour	4.25	SFF	92.54 %
SIL in compliance with IEC 61508	3		

**Environmental Product Compliance**

REACH SVHC	Lead 7439-92-1
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**Rated data UL**

Certificate No. (UL)	E311081	UL certificate	UL 497b Certificate
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**CSA protection data**

Gas group C	IIB	Gas group D	IIA
Gas groups A, B	IIC	Input voltage, max. U <sub>i</sub>	6.4 V
Internal capacity, max. C <sub>i</sub>	11 nF	Internal inductance, max. L <sub>i</sub>	0 μH

**General data**

Colour	orange	Design	Terminal, miscellaneous
Protection degree	IP20	Segment	Measurement - Monitoring - Setting
UL 94 flammability rating	V-0	Version	without warning function / function indicator

**Insulation coordination acc. to EN 50178**

Pollution severity	2	Surge voltage category	III
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## Technical data

### Rated data IEC / EN

Rated voltage (AC)	5 V	Rated voltage (DC)	5 V
Voltage type	AC/DC	Max. continuous voltage, U <sub>c</sub> (AC)	5 V
Max. continuous voltage, U <sub>c</sub> (DC)	6.4 V	Discharge current I <sub>n</sub> (8/20µs) GND-PE	2.5 kA
Discharge current I <sub>max</sub> (8/20µs) GND-PE	10 kA	Discharge current I <sub>n</sub> (8/20µs) wire-PE	2.5 kA
Discharge current I <sub>max</sub> (8/20µs) wire-PE	2 x 10 kA	Discharge current I <sub>n</sub> (8/20µs) wire-wire	2.5 kA
Discharge current I <sub>max</sub> (8/20µs) wire-wire	10 kA	Lightning test current, I <sub>imp</sub> (10/350 µs) GND-PE	0.2 kA
Lightning test current, I <sub>imp</sub> (10/350 µs) Wire-PE	2 x 0.2 kA	Lightning test current, I <sub>imp</sub> (10/350 µs) wire-wire	0.2 kA
Standards	IEC 61643-21	Protection level U <sub>p</sub> (typ.)	250 V
Protection level on output side Wire-PE		Protection level on output side Wire-wire	
1kV/µs, typically	10 V	1 kV/µs, typically	10 V
Protection level on output side Wire-wire		Protection level, U <sub>p</sub> GND - PE	500 V
8/20 µs, typically	15 V	Insertion loss	113.7 MHz
Protection level, U <sub>p</sub> wire - PE	35 V	Overload - failure mode	Modus 2
Number of poles	1	Pulse-reset capacity	≤ 20 ms
Protection level, U <sub>p</sub> wire - wire	15 V	Requirements category acc. to IEC 61643-21	C1, C2, C3, D1
Rated current I <sub>N</sub>	450 mA	Signalling contact	No
Signal transmission properties (-3 dB)	113.6 MHz	Surge current-carrying capacity C2	5 kA 8/20 µs
Surge current-carrying capacity C1	< 1 kA 8/20 µs	Surge current-carrying capacity D1	2.5 kA 10/350 µs
Surge current-carrying capacity C3	100 A 10/1000 µs		
Volume resistance	2.20 Ω		

### Further details of approvals

GOST certificate GOST-Zertifikat

### Connection data

Type of connection Pluggable in VSPC BASE

### Classifications

ETIM 6.0	EC000943	ETIM 7.0	EC000943
eClass 9.0	27-13-08-07	eClass 9.1	27-13-08-07
eClass 10.0	27-13-08-07	UNSPSC	30-21-19-21

### Approvals

Approvals



ROHS Conform

**Data sheet****VSPC  
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Klingenbergstraße 26  
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www.weidmueller.com**Technical data****Downloads**

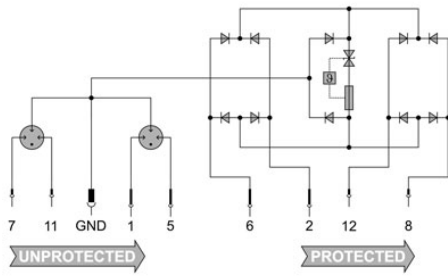
Approval/Certificate/Document of Conformity	<a href="#">SIL Paper</a> <a href="#">CE PAPER</a> <a href="#">Declaration of Conformity</a>
Brochure/Catalogue	<a href="#">CAT 4.4 ELECTR 16/17 EN</a>
Engineering Data	<a href="#">EPLAN, WSCAD</a>
Engineering Data	<a href="#">STEP</a>
User Documentation	<a href="#">Instruction sheet</a>

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**Drawings**

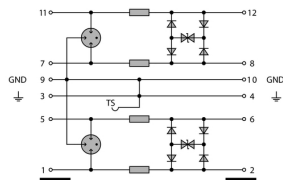
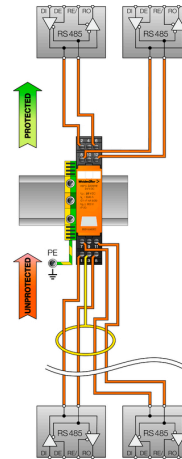
**Electric symbol**



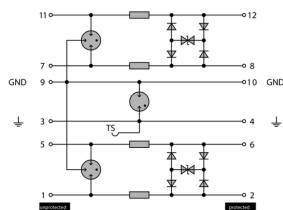
Circuit diagram

Category	Testing pulse	Surge voltage	Surge current	Pulse Type
C1	Quick-rising edge	0.5 - 2 kV 1.2/50 µs	0.25 - 1 kA mit 8/20 µs	300 Surge voltage arrester
C2	Quick-rising edge	2 - 10 kV 1.2/50 µs	1 - 5 kA mit 8/20 µs	10 Surge voltage arrester
C3	Quick-rising edge	≥ 1 kV 1 kV/µs	10 - 100 A mit 10/10000 µs	300 Surge voltage arrester
D1	High power	≥ 1 kV	0.5 - 2.5 kA mit 10/350 µs	2 Arrester for lightning current and surge voltages

Discharge capacity



Komplettmodul direkte Erdung



Komplettmodul indirekte Erdung  
**Komplettmodul**

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### Mating connector (fully pluggable)

#### Direct earthing



Base element for the pluggable VSPC arrester, integrated PE foot in impedance-neutral VSPC BASE. Can safely discharge up to 20 kA (8/20 µs) and 2.5 kA (10/350 µs) to the PE.

#### General ordering data

Type	VSPC BASE 2CL	Version
Order No.	<a href="#">8924710000</a>	Surge protection, Flange-mounted housing, 450 mA, IEC 61643-21,
GTIN (EAN)	4032248696352	IEC 62305, DIN EN 60079-0:2009, DIN EN 60079-11:2007, DIN EN
Qty.	1 pc(s).	60079-26:2007, DIN EN 61241-11:2006

#### Indirect earthing / floating ground via sparkover gap, also suitable for EX ia applications



Base element for the pluggable VSPC arresters. Integrated PE foot in the base of the impedance-neutral VSPC BASE and **floating earth PE connection (FG)** via integrated **sparkover gap**, safely discharges up to 20 kA (8/20 µs) and 2.5 kA (10/350 µs) to PE. Suitable for unearthed signal circuits.

#### General ordering data

Type	VSPC BASE 2CL FG	Version
Order No.	<a href="#">8924270000</a>	Surge protection, Flange-mounted housing, 450 mA, IEC 61643-21,
GTIN (EAN)	4032248695911	IEC 62305, DIN EN 60079-0:2009, DIN EN 60079-11:2007, DIN EN
Qty.	1 pc(s).	60079-26:2007, DIN EN 61241-11:2006

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**Accessories**
**Direct earthing**


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GTIN (EAN)	4032248696352	IEC 62305, DIN EN 60079-0:2009, DIN EN 60079-11:2007, DIN EN
Qty.	1 pc(s).	60079-26:2007, DIN EN 61241-11:2006

**Retaining clip**


The interlock mechanism on the VSPC Series pluggable arrester delivers extra reliability and an improved permanent contact under strong vibrating conditions.

**General ordering data**

Type	VSPC LOCKING CLIP	Version
Order No.	<a href="#">1317340000</a>	Fastening element
GTIN (EAN)	4050118121179	
Qty.	100 pc(s).	

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# Accessories

### V-TEST testing device: for the VSPC, PU I and PU II series



#### V-TEST

- Testing device for checking the protective function of the pluggable overvoltage protection PU I, PU II and VSPC series
- Device for implementing the IEC 62305 standard (regarding periodic testing)
- Easy-to-use device with integrated battery set for on-site measurements
- LCD results display
- Menu in two languages
- Including a protective bag and power supply
- User friendly navigation in German and English

The V-TEST is a compact, portable test instrument for the plug-in surge protectors VARITECTOR (VSPC) and the surge protectors for the power supply line PU I and PU II. Using this instrument Weidmüller overvoltage protectors can be tested for their protective function in line with the testing schedules laid down in IEC 62305-3 (DIN VDE 0185 part 3). In a display with background illumination, the test result is indicated with "OK" or "Not OK".

#### General ordering data

Type	V-TEST	Version
Order No.	<a href="#">8951860000</a>	Lightning and surge protection, Testing device
GTIN (EAN)	4032248743100	
Qty.	1 pc(s).	

### Indirect earthing / floating ground via sparkover gap, also suitable for EX ia applications



Base element for the pluggable VSPC arresters. Integrated PE foot in the base of the impedance-neutral VSPC BASE and **floating earth PE connection (FG)** via integrated **sparkover gap**, safely discharges up to 20 kA (8/20 µs) and 2.5 kA (10/350 µs) to PE. Suitable for unearthed signal circuits.

#### General ordering data

Type	VSPC BASE 2CL FG	Version
Order No.	<a href="#">8924270000</a>	Surge protection, Flange-mounted housing, 450 mA, IEC 61643-21,
GTIN (EAN)	4032248695911	IEC 62305, DIN EN 60079-0:2009, DIN EN 60079-11:2007, DIN EN
Qty.	1 pc(s).	60079-26:2007, DIN EN 61241-11:2006



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**Accessories**

**Plus**



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 PLUS MC NE WS	Version	
Order No.	<a href="#">1854490000</a>	Dekafix, Terminal marker, 5 x 5 mm, Pitch in mm (P): 5.00	
GTIN (EAN)	4032248393596	Weidmueller, white	
Qty.	1,000 pc(s).		