

VSPC 3/4WIRE 5VDC**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com



3 or 4-wire system protection includes the following signals:

- PT100, measuring bridges, DMS sensors, measuring bridges, ...
- Pluggable arrester, for interruption-free and impedance-neutral plug-in and pull-out
- Can be tested with V-TEST testing device
- Space-saving design for up to 4 binary signals
- Version with floating-earth PE connection used to avoid interference currents that result from differences in voltage potential
- For use in compliance with the IEC 62305 and IEC61643-22 (D1, C1, C2 and C3) installation standards
- Integrated PE foot safely discharges up to 20 kA (8/20 µs) and 2.5 kA (10/350 µs) to the PE
- Colour coding of the voltage levels for fast identification in the cabinet
- Safety function through coding elements for different voltage levels

General ordering data

Version	Surge protection for instrumentation and control, without warning function / function indicator, $U_p(L/N-PE) < 800\text{ V}$
Order No.	8924540000
Type	VSPC 3/4WIRE 5VDC
GTIN (EAN)	4032248696185
Qty.	1 pc(s).

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Technical data**Dimensions and weights**

Depth	69 mm	Depth (inches)	2.717 inch
Height	90 mm	Height (inches)	3.543 inch
Width	17.8 mm	Width (inches)	0.701 inch
Net weight	46 g		

Temperatures

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

Probability of failure

SIL in compliance with IEC 61508	3	MTTF	2,655 a
SFF	95.33 %	λges	43
PFH in 1*10 ⁻⁹ per hour	7		

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 _i	6.4 V
Internal capacity, max. C _i	4 nF	Internal inductance, max. L _i	0 μH

General data

Colour	orange	Design	Terminal, miscellaneous
Optical function display	No	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

Capacitance	2.3 nF	Discharge current I_{\max} (8/20 μ s) GND-PE	10 kA
Discharge current I_{\max} (8/20 μ s) wire-PE	10 kA	Discharge current I_{\max} (8/20 μ s) wire-wire	10 kA
Discharge current I_n (8/20 μ s) GND-PE	2.5 kA	Discharge current I_n (8/20 μ s) wire-PE	2.5 kA
Discharge current I_n (8/20 μ s) wire-wire	2.5 kA	Lightning test current, I_{imp} (10/350 μ s) GND-PE	2.5 kA
Lightning test current, I_{imp} (10/350 μ s) Wire-PE	2.5 kA	Lightning test current, I_{imp} (10/350 μ s) wire-wire	2.5 kA
Max. continuous voltage, U_c (DC)	6.4 V	Number of poles	1
Overload - failure mode	Modus 2	Protection level U_p (typ.)	< 800 V
Protection level on output side Wire-PE 1kV/ μ s, typically	250 V	Protection level on output side Wire-wire 1 kV/ μ s, typically	35 V
Protection level on output side Wire-wire 8/20 μ s, typically	35 V	Protection level, U_p GND - PE	450 V
Protection level, U_p wire - PE	10 V	Protection level, U_p wire - wire	20 V
Pulse-reset capacity	≤ 20 ms	Rated current I_N	450 mA
Rated voltage (DC)	3 V	Requirements category acc. to IEC 61643-21	C1, C2, C3, D1
Signal transmission properties (-3 dB)	750 KHz	Signalling contact	No
Standards	IEC 61643-21	Surge current-carrying capacity C1	< 1 kA 8/20 μ s
Surge current-carrying capacity C2	5 kA 8/20 μ s	Surge current-carrying capacity C3	100 A 10/1000 μ s
Surge current-carrying capacity D1	2.5 kA 10/350 μ s	Voltage type	DC
Volume resistance	0.20 Ω		

Further details of approvals

GOST certificate	GOST-Zertifikat
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Connection data

Type of connection	Pluggable in VSPC BASE
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Ratings IECEx/ATEX/cUL

cUL certificate	cUL Certificate
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Classifications

ETIM 6.0	EC000943	ETIM 7.0	EC000943
ETIM 8.0	EC000943	ETIM 9.0	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	ECLASS 13.0	27-17-90-90

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Technical data

Tender specification sheets

Long specification

Surge protection plug for use in connection with the base element VSPC BASE 2/4 CH for four floating-ground driven signal cables. Two-stage protection consisting of coarse and fine protection between all signal cables as well as coarse common mode voltage protection to signal ground/earth. Mechanical identification of the plug to the base element according to the switching type and rated voltage. Protected plug with coding pin and counter-profile for the base element. Optical identification of the protected plug based on the type of protected switching and the voltage level. It is possible to mark the plug.

Short specification

Surge protection plug for base element VSPC BASE 2/4 CH, transverse voltage coarse and fine protection for four floating-ground powered signal cables, coarse common mode voltage protection to earth. Version: 5 V DC

Environmental Product Compliance

REACH SVHC

Lead 7439-92-1

SCIP

71e97bb7-979f-4330-94c0-20c629bb05e3

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

UL File Number Search

UL Website

Certificate No. (UL)

E311081

Downloads

Approval/Certificate/Document of Conformity

[SIL Paper](#)
[EU Konformitätserklärung / EU Declaration of Conformity](#)

Engineering Data

[CAD data – STEP](#)

User Documentation

[Beipackzettel / Instruction sheet](#)

Catalogues

[Catalogues in PDF-format](#)

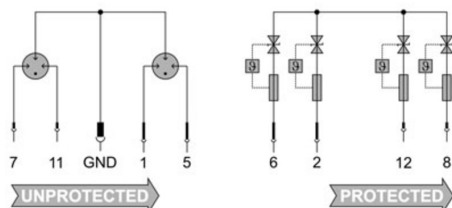
Brochures

VSPC 3/4WIRE 5VDC
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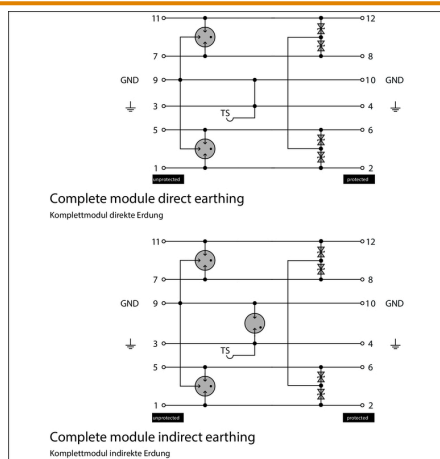
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Drawings
Electric symbol


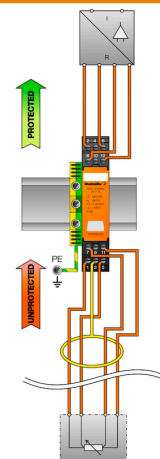
Circuit diagram

Cate- gory	Testing pulse	Surge voltage	Surge current	Pulse Type
C1	Quick- rising edge	0.5 - 2 kV with 1.2/50 µs	0.25 - 1 kA mit 8/20 µs	300 Surge voltage arrester
C2	Quick- rising edge	2 - 10 kV with 1.2/50 µs	1 - 5 kA mit 8/20 µs	10 Surge voltage arrester
C3	Quick- rising edge	≥ 1 kV with 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



Kompletmodul



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www.weidmueller.com**Accessories****V-TEST testing device for VSPC****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.	8951860000	Lightning and surge protection, Testing device
GTIN (EAN)	4032248743100	
Qty.	1 pc(s).	

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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.	1854490000	Dekafix, Terminal marker, 5 x 5 mm, Pitch in mm (P): 5.00
GTIN (EAN)	4032248393596	Weidmueller, white
Qty.	1,000 pc(s).	

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.	1317340000	Fastening element, Latches
GTIN (EAN)	4050118121179	
Qty.	100 pc(s).	

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Accessories

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 2/4CH	Version
Order No.	8924740000	Surge protection, Flange-mounted housing, Flange-mounted housing
GTIN (EAN)	4032248696383	
Qty.	1 pc(s).	