

## VSPC 3/4WIRE 24VDC

**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

[www.weidmueller.com](http://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  $\mu$ s) and 2.5 kA (10/350  $\mu$ s) 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, $U_p(L/N-PE) < 800$ V
Order No.	<a href="#">8924550000</a>
Type	VSPC 3/4WIRE 24VDC
GTIN (EAN)	4032248696192
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	47 g		

**Temperatures**

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

**Probability of failure**

SIL in compliance with IEC 61508	3	MTTF	2,655 Years
SFF	95.33 %	λges	43
PFH in 1*10 <sup>-9</sup> 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 <sub>i</sub>	28 V
Internal capacity, max. C <sub>i</sub>	4 nF	Internal inductance, max. L <sub>i</sub>	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	935 pF	Discharge current $I_{max}$ (8/20 $\mu$ s) GND-PE	10 kA
Discharge current $I_{max}$ (8/20 $\mu$ s) wire-PE	10 kA	Discharge current $I_{max}$ (8/20 $\mu$ s) wire-wire	10 kA
Discharge current $I_n$ (8/20 $\mu$ s) GND-PE	2.5 kA	Discharge current $I_n$ (8/20 $\mu$ s) wire-PE	2.5 kA
Discharge current $I_n$ (8/20 $\mu$ s) wire-wire	2.5 kA	Lightning test current, $I_{imp}$ (10/350 $\mu$ s) GND-PE	2.5 kA
Lightning test current, $I_{imp}$ (10/350 $\mu$ s) Wire-PE	2.5 kA	Lightning test current, $I_{imp}$ (10/350 $\mu$ s) wire-wire	2.5 kA
Max. continuous voltage, $U_c$ (DC)	28 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/ $\mu$ s, typically	270 V	Protection level on output side Wire-wire 1 kV/ $\mu$ s, typically	50 V
Protection level on output side Wire-wire 8/20 $\mu$ s, typically	50 V	Protection level, $U_p$ GND - PE	450 V
Protection level, $U_p$ wire - PE	38 V	Protection level, $U_p$ wire - wire	80 V
Pulse-reset capacity	$\leq$ 30 ms	Rated current $I_N$	450 mA
Rated voltage (DC)	24 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 $\mu$ s
Surge current-carrying capacity C2	5 kA 8/20 $\mu$ s	Surge current-carrying capacity C3	100 A 10/1000 $\mu$ s
Surge current-carrying capacity D1	2.5 kA 10/350 $\mu$ s	Voltage type	DC
Volume resistance	0.20 $\Omega$		

**Further details of approvals**

GOST certificate GOST-Zertifikat

**Connection data**

Type of connection Pluggable in VSPC BASE

**Ratings IECEx/ATEX/cUL**

cUL certificate cUL Certificate

**Classifications**

ETIM 6.0	EC000943	ETIM 7.0	EC000943
ETIM 8.0	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

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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: 24 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.
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## Approvals

Approvals



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

## Downloads

Approval/Certificate/Document of Conformity	<a href="#">SIL Paper</a> <a href="#">EU_Konformitätserklärung / EU_Declaration_of_Conformity</a>
Engineering Data	<a href="#">CAD data – STEP</a>
Engineering Data	<a href="#">WSCAD</a>
User Documentation	<a href="#">Beipackzettel / Instruction sheet</a>
Catalogues	<a href="#">Catalogues in PDF-format</a>
Brochures	

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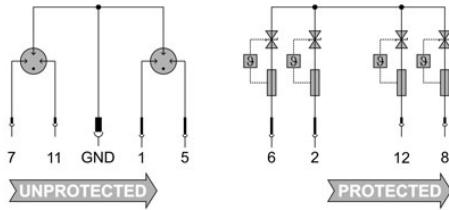
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**Drawings**

**Electric symbol**



Circuit diagram

Cate- gory	Testing pulse	Surge voltage	Surge current	Pulse Type
C1	Quick- rising edge	0.5 - 2 kV 1.2/50 µs	0.25 - 1 kA 8/20 µs	300 Surge voltage arrester
C2	Quick- rising edge	2 - 10 kV 1.2/50 µs	1 - 5 kA 8/20 µs	10 Surge voltage arrester
C3	Quick- rising edge	≥ 1 kV 1 kV/µs	10 - 100 A 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

