

## VSPC 3/4WIRE 24VDC

**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  $\mu$ 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
Humidity	5...96 %		

**Probability of failure**

SIL PAPER	SIL Paper	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

**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>	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		Short specification
	<p>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.</p>	<p>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</p>

**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	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="#">EPLAN, WSCAD</a>
User Documentation	<a href="#">Beipackzettel / Instruction sheet</a>
Catalogues	<a href="#">Catalogues in PDF-format</a>
Brochures	

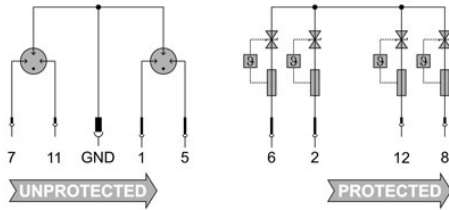
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**Drawings**

**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

