

**VSPC 1CL PW 24V****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com



Combined protection of one current loop 0(4) ... 20 mA  
and 24 VDC supply voltage

- Protects the 24 V power supply with type III arrester (IEC 61643-11)
- Pluggable arrester, with interruption-free and impedance-neutral plug-in and pull-out
- For use in accordance with installation standard IEC 62305 / IEC 61643-22 (D1, C1, C2 and C3)
- Integrated PE foot safely discharges up to 20 kA (8/20  $\mu$ s) and 2.5 kA (10/350  $\mu$ s) to the PE

**General ordering data**

Version	Surge protection for instrumentation and control, without warning function / function indicator
Order No.	<a href="#">8951510000</a>
Type	VSPC 1CL PW 24V
GTIN (EAN)	4032248742752
Qty.	1 items

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**Technical data**

**Approvals**

Approvals



ROHS	Conform
UL File Number Search	<a href="#">UL Website</a>
Certificate No. (UL)	E311081

**Dimensions and weights**

Depth	69 mm	Depth (inches)	2.7165 inch
Height	90 mm	Height (inches)	3.5433 inch
Width	17.8 mm	Width (inches)	0.7008 inch
Net weight	50 g		

**Temperatures**

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

**Probability of failure**

SIL in compliance with IEC 61508	3	MTTF	2537 a
SFF	95.67 %	λges	45
PFH in 1*10 <sup>-9</sup> per hour	1.95		

**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

**Power protection Class III**

Combined pulse UOC	6 kV	Max. continuous voltage, Uc (AC)	27 V
Max. continuous voltage, Uc (DC)	38 V	Rated voltage (AC)	24 V
Rated voltage (DC)	24 V		

**Rated data UL**

Certificate No. (UL)	E311081	UL certificate	UL 497b Certificate - PDF/ E311081VOL1SEC2.pdf (application/pdf)
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**CSA protection data**

Gas group D	IIA	Gas groups A, B	IIC
Gas group C	IIB	Internal inductance, max. LI	0 µH
Input voltage, max. Ui	39 V		

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## Technical data

### General data

Optical function display	For Class III protection, green = OK; red = arrester is defective - replace	Segment	Measurement - Monitoring - Setting
Version	without warning function / function indicator	Design	Terminal, miscellaneous
UL 94 flammability rating	V-0	Colour	orange
Protection degree	IP20		

### Insulation coordination acc. to EN 50178

Surge voltage category	III	Pollution severity	2
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### Rated data IEC / EN

Number of poles	1	Combined pulse UOC	6 kV
Signalling contact	No	Rated voltage (AC)	24 V
Rated voltage (DC)	24 V	Rated current IN	10 A
Protection level on output side Wire-wire 60 V 1 kV/μs, typically		Protection level on output side Wire-PE 1kV/μs, typically	450 V
Protection level on output side Wire-wire 60 V 8/20 μs, typically		Voltage type	AC/DC
Fuse protection	0.5 A	Volume resistance	2.20 Ω
Standards	IEC 61643-21, HART-compatible	Rated current	450 mA
Requirements category acc. to IEC 61643-21	C1, C2, C3, D1	Max. continuous voltage, Uc (AC)	27 V
Max. continuous voltage, Uc (DC)	38 V	Lightning test current, Iimp (10/350 μs) wire-wire	2.5 kA
Surge current-carrying capacity D1	2.5 kA 10/350 μs	Surge current-carrying capacity C1	<1 kA 8/20 μs
Surge current-carrying capacity C3	100 A 10/1000 μs	Lightning test current, Iimp (10/350 μs) GND-PE	2.5 kA
Pulse-reset capacity	≤ 10 ms	Signal transmission properties (-3 dB)	3 MHz
Lightning test current, Iimp (10/350 μs) Wire-PE	2.5 kA	Overload - failure mode	Modus 2
Discharge current I <sub>max</sub> (8/20μs) GND-PE	10 kA	Rated load current I <sub>L</sub>	10 A
Discharge current I <sub>n</sub> (8/20μs) wire-wire	2.5 kA	Discharge current I <sub>n</sub> (8/20μs) wire-PE	2.5 kA
Discharge current I <sub>max</sub> (8/20μs) wire-PE	10 kA	Discharge current I <sub>max</sub> (8/20μs) wire-wire	10 kA
Discharge current I <sub>n</sub> (8/20μs) GND-PE	2.5 kA	Surge current-carrying capacity C2	5 kA 8/20 μs

### Further details of approvals

GOST certificate	GOST-Zertifikat - PDF/7950_n1-n4.pdf (application/pdf)
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### Connection data

Type of connection	Pluggable in VSPC BASE
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### Electrical data

Voltage type	AC/DC
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## Technical data

### General data

Number of poles	1	Protection degree	IP20
Colour	orange		

### Ratings IECEx/ATEX/cUL

cUL certificate	cUL Certificate - pdf/ VSPC.PDF (application/ pdf)		
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### Guarantee

Time interval	5 years		
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### 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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### 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		

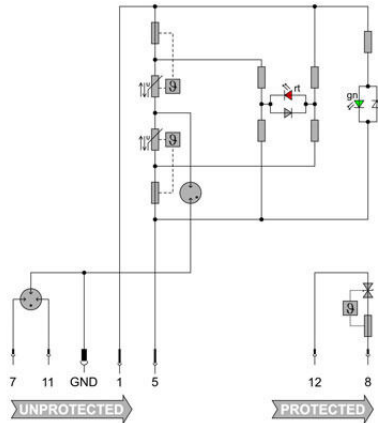
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Drawings

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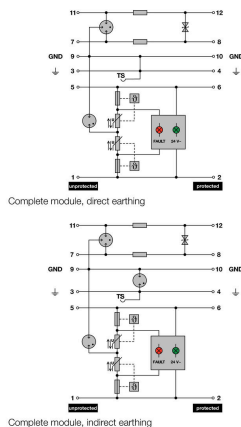
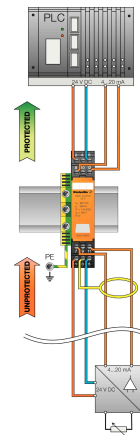
Electric symbol



Circuit diagram

Derating curve

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



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