

VSPC VSPC 1CL PW 24V

Weidmüller Interface GmbH & Co. KG
 Klingenbergstraße 26
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 Germany
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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 μ s) and 2.5 kA (10/350 μ s) to the PE

General ordering data

Type	VSPC 1CL PW 24V
Order No.	8951510000
Version	Surge protection for instrumentation and control, 24 V, 24 V, 10 A, IEC 61643-21, HART-compatible
GTIN (EAN)	4032248742752
Qty.	1 pc(s).

Creation date April 22, 2020 8:41:35 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	50 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

λ_{ges}	45	MTTF	2,537 Years
PFH in $1 \cdot 10^{-9}$ per hour	1.95	SFF	95.67 %
SIL in compliance with IEC 61508	3		

Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
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Power protection Class III

Combined pulse U_{OC}	6 kV	Max. continuous voltage, U_c (AC)	27 V
Max. continuous voltage, U_c (DC)	38 V	Protection level U_p (typ.)	≤ 0.9 kV
Rated voltage (AC)	24 V	Rated voltage (DC)	24 V

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	39 V
Internal inductance, max. L_i	0 μ H		

General data

Colour	orange	Design	Terminal, miscellaneous
Optical function display	For Class III protection, green = OK; red = arrester is defective - replace	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)	24 V	Rated voltage (DC)	24 V
Voltage type	AC/DC	Max. continuous voltage, U _c (AC)	27 V
Max. continuous voltage, U _c (DC)	38 V	Discharge current I _n (8/20µs) GND-PE	2.5 kA
Discharge current I _{max} (8/20µs) GND-PE	10 kA	Discharge current I _n (8/20µs) wire-PE	2.5 kA
Discharge current I _{max} (8/20µs) wire-PE	10 kA	Discharge current I _n (8/20µs) wire-wire	2.5 kA
Discharge current I _{max} (8/20µs) wire-wire	10 kA	Lightning test current, I _{imp} (10/350 µs) GND-PE	2.5 kA
Lightning test current, I _{imp} (10/350 µs) Wire-PE	2.5 kA	Lightning test current, I _{imp} (10/350 µs) wire-wire	2.5 kA
Fuse	0.5 A	Standards	IEC 61643-21, HART-compatible
Protection level U _p (typ.)	≤ 0.9 kV	Protection level on output side Wire-PE 1kV/µs, typically	450 V
Protection level on output side Wire-wire 1 kV/µs, typically	60 V	Protection level on output side Wire-wire 8/20 µs, typically	60 V
Protection level, U _p GND - PE	450 V	Protection level, U _p wire - PE	450 V
Combined pulse U _{OC}	6 kV	Number of poles	1
Overload - failure mode	Modus 2	Protection level, U _p wire - wire	40 V
Pulse-reset capacity	≤ 10 ms	Rated current	450 mA
Rated current I _N	10 A	Requirements category acc. to IEC 61643-21	C1, C2, C3, D1
Signal transmission properties (-3 dB)	3 MHz	Signalling contact	No
Surge current-carrying capacity C1	< 1 kA 8/20 µs	Surge current-carrying capacity C2	5 kA 8/20 µs
Surge current-carrying capacity C3	100 A 10/1000 µs	Surge current-carrying capacity D1	2.5 kA 10/350 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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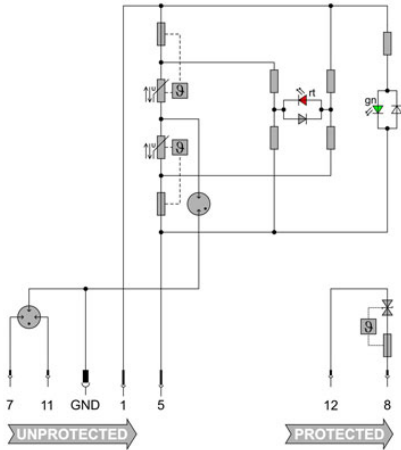
Approval/Certificate/Document of Conformity	SIL Paper CE PAPER
Brochure/Catalogue	CAT 4.4 ELECTR 16/17 EN
Engineering Data	EPLAN, WSCAD
Engineering Data	STEP
User Documentation	Instruction sheet

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Drawings

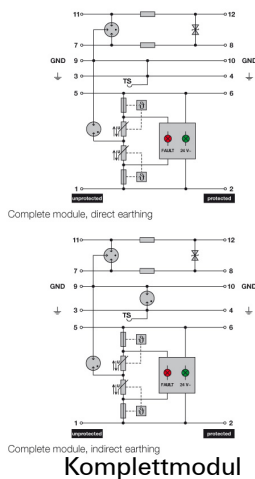
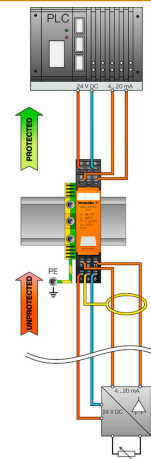
Electric symbol



Circuit diagram

Derating curve

Category	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



Komplettmodul