

VSPC 2CL 24VAC R

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Analogue signal / CL (current loop) protection includes the following signals:

- Signals from current loops (analogue measurements of transmitters over long distances) 4-20 mA, 0-20 mA, etc.
- Two-wire, three-wire and four-wire, without a common reference potential
- for example: fill-level measurement signals from voltage transmitters (analogue measurements of transmitters over short distances) 0-10 V, PT 100 etc.; for example: temperature measurements
- Pluggable arrester, with no-interrupt and impedance-neutral plug-in and pull-out
- Can be tested with the V-TEST testing device
- Space-saving design for 2 analogue signals
- Version with floating-earth PE connection used to avoid differences in voltage potential
- Can be used in compliance with the IEC 62305 (D1, C1, C2 and C3) installation standard
- Integrated PE foot, safely discharges up to 20 kA (8/20 µs) and 2.5 kA (10/350 µs) to PE
- Quick identification in the electrical cabinet with coloured labelling of the voltage levels
- Coding element for the different voltage levels provides safety

General ordering data

Type	VSPC 2CL 24VAC R
Order No.	1093400000
Version	Surge protection for instrumentation and control, 24 V, 34 V, 450 mA, IEC 61643-21
GTIN (EAN)	4032248864317
Qty.	1 pc(s).

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Technische Daten

Dimensions and weights

Width	17.8 mm	Height	98 mm
Depth	69 mm	Net weight	46 g

Temperatures

Humidity	5...96 %	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	3.7	SFF	95.27 %
SIL in compliance with IEC 61508	3		

General data

Colour	Arrester red	Optical function display	green = OK; red = arrester is defective - replace
Protection degree	IP 20	Segment	Instrumentation and Control
UL 94 flammability rating	V-0		

Insulation coordination acc. to EN 50178

Pollution severity	2	Surge voltage category	III
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Interference voltage

Protection level on output side Wire-wire 1 kV/ μ s, typically	60 V	Protection level on output side Wire-wire 8/20 μ s, typically	60 V
Protection level on output side Wire-PE 1kV/ μ s, typically	450 V	Protection level on output side Wire-PE 8/20 μ s, typically	800 V

Protection level

Protection level, U_p GND - PE	800 V	Protection level, U_p wire - PE	450 V
Protection level, U_p wire - wire	60 V		

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technical data

Rated voltage (AC)	24 V	Rated voltage (DC)	34 V
Rated current	450 mA	Rated voltage (DC), max.	39 V
Max. continuous voltage, U_c (AC)	28 V	Max. continuous voltage, U_c (DC)	39 V
Highest continuous voltage (AC)	28 V	Discharge current I_n (8/20 μ s) wire-wire	2.5 kA
Discharge current I_{max} (8/20 μ s) wire-wire	10 kA	Discharge current I_n (8/20 μ s) wire-PE	2.5 kA
Discharge current I_n (8/20 μ s) GND-PE	2.5 kA	Discharge current I_{max} (8/20 μ s) GND-PE	10 kA
Discharge current I_{max} (8/20 μ s) wire-PE	2 x 10 kA	Fuse, max.	0.5 A
Protection level U_p (typ.)	< 650 V	Protection level on output side Wire-wire 8/20 μ s, typically	60 V
Protection level on output side Wire-PE 8/20 μ s, typically	800 V	Signalling contact	U_N 250 V AC 0.1 A 1CO at VSPC R with VSPC CONTROL UNIT
Standards	IEC 61643-21	Colour	Arrester red
Humidity	5...96 %	Requirements category acc. to IEC 61643-21	C1, C2, C3, D1
Lightning test current I_{imp} (10/350 μ s)	2.5 kA	Lightning test current I_{imp} (10/350 μ s) [L-PE]	2.5 kA
Lightning test current I_{imp} (10/350 μ s) [N-PE]	2.5 kA	Volume resistance	2.20 Ω
Capacitance	2.0 nF	Voltage type	AC
Overload - failure mode	Modus 2		

CSA protection data

Input voltage, max. U_i	39 V	Internal capacity, max. C_i	2 nF
Internal inductance, max. L_i	0 μ H		

Further details of approvals

GOST certificate	GOST-Zertifikat
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Rated data UL

Certificate No. (UL)	E311081	UL certificate	UL 497b Certificate
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Classifications

ETIM 3.0	EC000943	UNSPSC	30-21-19-21
eClass 5.1	27-13-08-01	eClass 6.2	27-13-08-02
eClass 7.1	27-13-08-02		

Product information

Descriptive text technical data	The associated VSPC base element should be ordered with this. The dimension information provided refers to the complete module.
Descriptive text accessories	EMC Set: 1067470000 Marker: DEK 5

Approvals

Approvals



Erstellungs-Datum December 17, 2013 10:07:22 AM CET

Katalogstand xx.xx.xxxx / Technische Änderungen vorbehalten

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Probability of failure

SIL PAPER

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Package insert

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Declaration of Conformity

[CE document](#)

EPLAN

[1093400000.ema](#)

Selection matrix

[Preference selection VSPC](#)

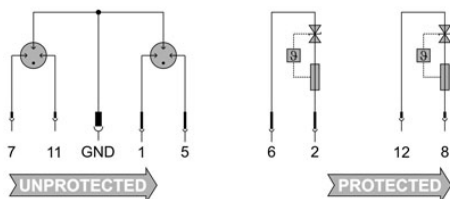
[3D Modell](#)

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Zeichnungen

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

