

Varitector High Density Surge Protection

NEW



Weidmüller's Varitector range offers low-cost, high-density surge protection options for lightning and other transient protection in industrial control equipment. UL (497B) approved, Varitector is ideally suited for signaling (I/O) applications such as analog current and voltage loops, DC and AC status signals and a wide variety of serial interface and telephone network installations. Models for hazardous area and SIL options are available.

The Varitector range includes two construction formats, VSSC and VSPC. VSSC models feature 4- or 6-pole rugged, compact terminal-sized housings. VSPC models feature a two part, plug-and-base format for easy arrestor replacement without re-wiring. Both formats are DIN-rail mounted, rated for discharge currents up to 20kA (8/20 μ s), and provide a combination of wire-to-ground and wire-to-wire protection.

All Varitector models include high quality field connections and are grounded via the DIN-rail. A combination of gas discharge tubes, varistors and suppression diodes in single or multi-stage configuration are used to protect nominal voltages between 5 VDC and 230 VAC.

Status monitoring options help ensure continued protection. VSPC modules feature local and remote signaling of arrestor status, while many of the VSSC6 models have an option for an integral LED, which signals when module replacement is required.

The Varitector range complements the Weidmüller's SPD II range of surge protectors for low voltage power distribution applications. Taken together, these products provide extensive DIN-rail mounted surge protection capability for industrial installations.

Features:

- Two formats – high density terminal (VSSC), or pluggable, replaceable arrestor (VSPC)
- $I_{max} = 20kA$ (8/20 μ s)
- Local or remote indication options for arrestor status
- Grounding via DIN-rail or field connection
- UL497B approval
- Color coded line voltage identification
- Accessories include test meter and EMC Set (easy shield connector)

Weidmüller, Canada

10 Spy Court
Markham, Ontario L3R 5H6
Telephone: (800) 268-4080
Facsimile: (877) 300-5635
Email: info1@weidmuller.ca
Website: www.weidmuller.ca

Weidmüller, Mexico

Bld. Hermanos Serdán 698
Col. San Rafael Oriente
Puebla, Puebla, Mexico
C.P. 72029
Telephone: 01 222 2686267
Facsimile: 01 222 2686219
Email: clientes@weidmuller.com.mx
Website: www.weidmuller.com.mx

Weidmüller, United States

821 Southlake Blvd.
Richmond, Virginia 23236
Telephone: (800) 849-9343
Facsimile: (804) 379-2593
Email: info@weidmuller.com
Website: www.weidmuller.com

VARITECTOR SPC

Pluggable surge protection for the measurement and control industry VARITECTOR SPC

Weidmüller's VARITECTOR SPC pluggable surge protection is remarkable for its combination of extremely high protective functionality and compact dimensions. It is suited for use in measurement and control circuits. The size is made possible by the selection of INSTA dimensions, with a width of 17.8 mm (1TE).

Two versions are available:

- VSPC: a surge protector with no monitoring function
- VSPC R: a surge protector with monitoring function

The base components are plugged in to form a direct earthing contact via the mounting rail. Thus you save time during the connection. The VARITECTOR SPC series is optimally designed for compact installation locations in process automation, industrial automation or building automation. The two-stage surge-protection base components are equipped with gas discharge tubes, suppressor diodes (TVS) and decoupling components. Individual protective components (such as gas-filled spark gaps, varistors and suppressor diodes) supplement this product line. IEC 62305 requires that a periodic inspection of surge protection products be conducted. The functionality of all VARITECTOR SPC modules can be tested using testing equipment (such as the V-TEST Basic) that is available separately. The VARITECTOR SPC R modules also feature an internal monitoring function. The green LED signals when the protection function is ready. The red LED signals an error. VARITECTOR SPC Up to

ten modules can be wired together in series. The modules alert an evaluative module (the VSPC CONTROL UNIT) in the event of an error. VARITECTOR SPC-series surge protection is available with rated voltages of 5 V, 12 V, 24 V, 48 V and 60 V. The product's voltage level is Color-coded on the pluggable arrester. An earthing contact is established by snapping onto an earthed TS35 rail. The TS35 must be earthed in order to ensure safe power discharging via the terminals of up to 20 kA (8/20 μ s) and 2.5 kA (10/350 μ s). The rail must be screwed onto the earthed mounting plate for reasons of EMC. In order to optimize the protective function, a PE-contact connection should be made over the VSPC module every 60 cm for equipotential bonding. The pluggable protective element can be pulled out during operations without interrupting the measurement circuit. A testing instrument, available as a Weidmüller accessory, allows you to test the protective element in compliance with the IEC 62305-3 directive. The accessory also includes a simple mechanism for applying the wire shield.



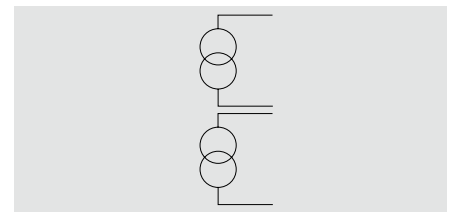
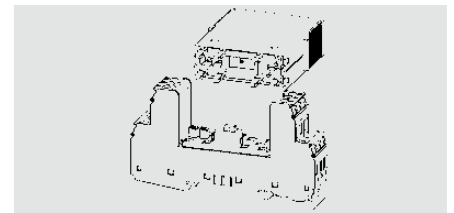
Overview of model types

A VARITECTOR SPC (VSPC) consists of a **pluggable component** and a **separate base component (VSPC BASE)**.

Explanation of terms:

CL = current loop / analog signals

SL = symmetric loop - for binary signals

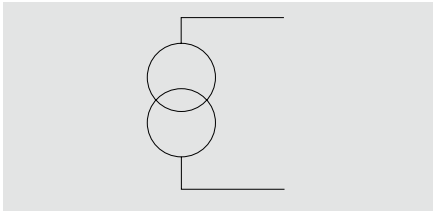


VSPC 2CL (CL = current loop) is a two-stage protective combination with a gas discharge tube and a suppressor diode located between the current paths. This VSPC 2CL limits the surge voltage within **two analog signal circuits** (such as for current loops). This pluggable component can be inserted into the base (VSPC BASE 2CL). The base (VSPC BASE FG 2CL) is used when working with signal circuits which are not earthed. The VSPC 2CL HF is used in order to avoid influencing high-frequency signal circuits (this also includes the VSPC RS485 and the VSPC UK0). This protective combination is also inserted into the base mentioned above.

Monitoring function

The **VSPC 2CL R** products feature monitor and alert functions. Despite the alert function, there are still two channels

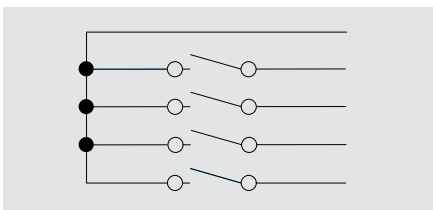
available for current loops in a single housing. The special VSPC BASE 2CL R and VSPC BASE 2CL FG R bases transfer the alert function to a 2-pole screw/plug-in connection in the bases and to the VSPC CONTROL UNIT.



The **VSPC 1CL** is a two-stage protective combination with a gas discharge tube and a suppressor diode located between the current paths. This VSPC 1CL limits the surge voltage within **one analog signal circuits** (such as for current loops). This pluggable component can be inserted into the base (VSPC BASE 1CL). The base (VSPC BASE FG 1CL) is used when working with signal circuits which are not earthed.

Monitoring function

The **VSPC 1CL R** products feature monitor and alert functions. All channels remain despite the alert function. The special VSPC BASE 1CL R and VSPC BASE 1CL FG R bases transfer the alert function to a 2-pole screw/plug-in connection in the bases and to the VSPC CONTROL UNIT.

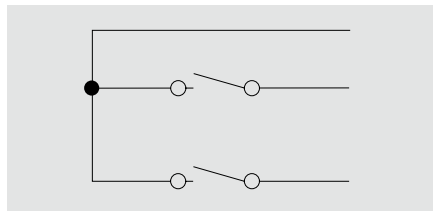


The **VSPC 4SL** is a two-stage protective combination with a gas discharge tube and a suppressor diode from the current

path to the PE. This VSPC 4SL limits the surge voltage within **four binary signal circuits** (such as for alert contacts). This pluggable component can be inserted into the base (VSPC BASE 4SL). The base (VSPC BASE FG 4CL) is used when working with signal circuits which are not earthed.

Monitoring function

The **VSPC 4SL R** products feature monitor and alert functions. Despite the alert function, there are still channels available for the four binary signal circuits in a single housing. The special VSPC BASE 4SL R base transfers the alert function to a 2-pole screw/plug-in connection in the base and to the VSPC CONTROL UNIT.

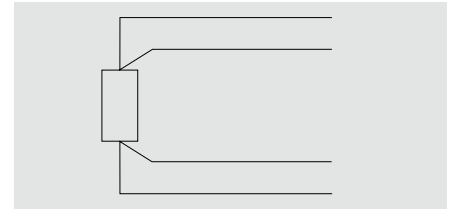


The **VSPC 2SL** is a two-stage protective combination with a gas discharge tube and a suppressor diode from the current path to the PE. This VSPC 2SL limits the surge voltage within **two binary signal circuits** (such as for alert contacts). This pluggable component can be inserted into the base (VSPC BASE 2SL). The base (VSPC BASE 2CL FG) is used when working with signal circuits which are not earthed.

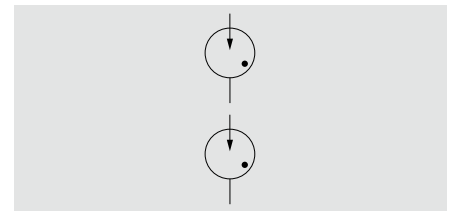
Monitoring function

The **VSPC 2SL R** products feature monitor and alert functions. Despite the alert function, there are still channels available for the two binary signal circuits in a single housing. The special VSPC BASE 2SL R base transfers the alert function to a 2-pole screw/plug-in connection in the base and to the

VSPC CONTROL UNIT.

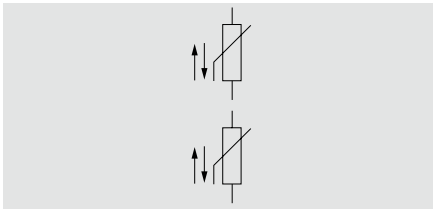
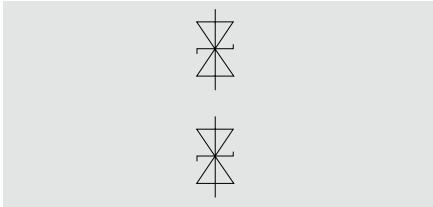


The **VSPC 3/4WIRE** is a two-stage protective combination with a gas discharge tube and a suppressor diode from the current path to the GND. This VSPC 3/4WIRE limits the surge voltage within four temperature-measurement circuits (such as for DMS or PT100/100 sensors). For non-earthed measurement circuits, we recommend using the base (VSPC BASE FG 4CL).

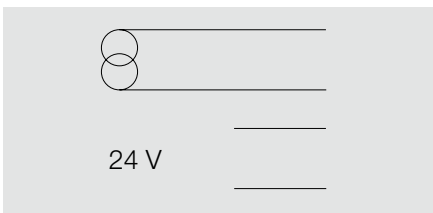


VSPC MOV 2CH , VSPC TAZ 2CH und VSPC GDT 2CH

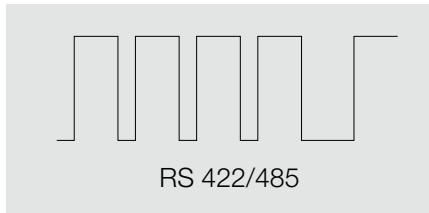
Four cables can be protected with the 2CH modules. By wiring the connections differently, either two no-voltage signal lines or four binary signal lines can be protected. Two three-pole gas discharge tubes (GDTs) are used for the VSPC GDT 2CH. This universal protective circuitry limits the voltage between the signal lines and also between each signal line and the PE.



The VSPC MOV 2CH and TAZ 2CH offer one-stage protection with a varistor (MOV) or suppressor diode (TAZ or TVS) between the current paths. This makes it possible to protect a no-voltage (floating) signal circuit. Two binary signal circuits can also be protected if terminals 1 and 7 are assigned to GND / PE. These VSPC pluggable components are inserted into the base (VSPC BASE 2/4CH). The base (VSPC BASE 2/4CH FG) is used when working with signal circuits which are not earthed..



VSPC 1CL PW (power and signal 1CL) offers combined protection that is suitable for the 24 VDC power supply and the current loops within a device. This VSPC protects sensors with an additional 24 VDC.



The **VSPC RS485** is a two-stage protective combination with a gas discharge tube and a suppressor diode located between the current paths. This VSPC RS485 limits the surge voltage within **two high-frequency signal circuits**. This pluggable component can be inserted into the base (VSPC BASE 2CL). The base (VSPC BASE FG 2CL) is used when working with signal circuits which are not earthed.

Monitoring function

The VSPC RS485 R product features monitoring and alert functions. Despite the alert function, there are still two channels available for current loops in a single housing. The special VSPC BASE 2CL R and VSPC BASE 2CL FG R bases transfer the alert function to a 2-pole screw/plug-in connection in the bases and to the VSPC CONTROL UNIT.

Earthing unit and test plug

The earthing unit can be used during installation to short out the connected wires to earth. The earthing unit is swapped out for a VSPC pluggable component before the initial commissioning. The test plug has 2.3 mm sockets. These sockets can be used by a meter to check the connected measurement circuit..

Applications

The pluggable INSTA housing was created in compliance with DIN 43880. It consists of a lower section (the VSPC BASE) and a pluggable component (the VSPC). The VSPC BASE is made from black PA6.6 V0. The pluggable component is made from red PA6.6 V0. The temperature range is from -40 °C to + 70 °C. The VSPC series has been tested to comply with IEC 61643-21 04/2008 and EN 61643-21. Modules were tested with categories C1, C2 and C3: with quick-rising edges with up to 300 pulses. Category D1 describes high power testing (10/350 µs), so that the VSPC can be used according to IEC 62305-4. The base and pluggable components are Color coded according to the voltage level. This makes installation easier.

Color coding

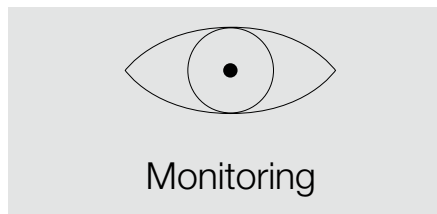
The pluggable components transfer their coding to the base element when they are plugged in for the first time. The voltage levels are also labelled with Colored Dekafix markers applied to the VSPC pluggable component. This gives you a better overview within the electrical cabinet.

Voltage level	Color
≤ 12 V	green
24 V Binary	blue
24 V Analog	yellow
48 V	red
≥ 60 V	violet
Special function	white

Test possibility / V-TEST

Because the modules are pluggable, it is possible to test the VSPC visually or by using a V-TEST BASIC testing device. The VSPC can be easily tested; the user needs only to insert the VSPC pluggable component into the V-TEST BASIC. The result is then shown on the display. The VSPC R modules also feature an internal monitoring function for the arrester. An error is displayed at the defective module. The VSPC CONTROL UNIT can then transfer an alert to the control room.

Reoccurring tests / V-TEST

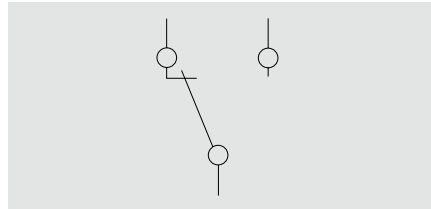


The IEC 62305-3 requires testing and maintenance for lightning protection systems. This includes the testing of the arresters used in the system.

Class of protection	Interval for complete testing	Interval for visual inspection
I	2 years	1 year
II	4 years	2 years
III/IV	6 years	3 years

Caution! These periodic inspections may be extended with stricter requirements pertaining to special applications or regions.

Remote error diagnostics

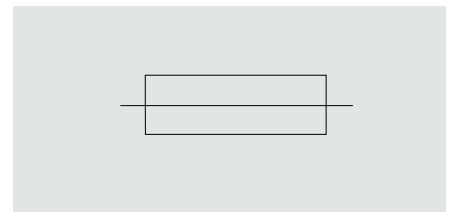


When the VSPC module labelled "R" is inserted into the corresponding "R" base component, it is then possible to use the outage alert function via a two-pole plug. This screw/plug-in connection has a clamping range from 0.5 to 1.5 mm². The wire stripping length is 6 to 6.5 mm. A screwdriver with a 2 mm blade width is used to turn the screw. The VSPC Rs are connected in series to the VSPC CONTROL UNIT evaluative module. Up to ten VSPC Rs can be connected in series to the VSPC CONTROL UNIT. The evaluative module is supplied with 24 VDC. It is then responsible for the switching and for the voltage supply to the VSPC modules. A no-voltage (floating) CO contact can then be used to alert in the event of an outage. The error is also displayed directly on the module when the LED changes Color from green to red. An automatic reset is carried out by the VSPC CONTROL UNIT within one minute after the failed VSPC pluggable component is replaced.

Installation

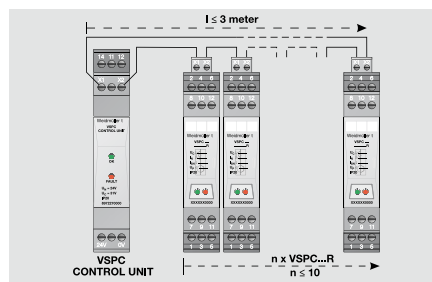
The VSPC series is appropriate for protecting signal circuits. In order to achieve a complete protective strategy for the facility, the power feed must be protected against Class-II surge voltages (for example, by using the PU II series). For existing lightning protection facilities, Class-I protection must be used (for example, by using the PU I series). Class-II protection (for example, the PU II) is sufficient when there is no lightning protection facility.

Fusing



The VSPC surge protection modules are designed so that they are decoupled between the individual protective stages. The following must be observed when providing fuse protection externally:

- Max. rated current
- Deratings curve
- Type of installation
- Application



Discharge capacity

Testing is conducted using voltage and current pulses according to the IEC 61643-21 standard concerning surge protection in networks which process signals.

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

Category C reflects the interference pulses with quick-rising edges and minimized power. Category D uses quick-rising edges and high power to detail the interference pulses. This energy simulates the high-power load that stems from coupled partial lightning currents.

General technical data

Storage temperature -40 °C...+80 °C
 Operating temperature: -40 °C...+70 °C
 Air humidity 5%...96% RH with no condensation
 Material: V0, IP20

Connection: screw connection
 screwdriver blade: 0.6 x 3.5 DIN 5264 (for example, 0.6 x 3.5 x 200, Part No. 9010110000)
 rated torque: 0.5 Nm
 max. torque: 0.8 Nm
 stripping length: 7 mm
 solid: 0.5...4 mm²
 flexible: 0.5...2.5 mm²
 wire-end ferrule with plastic collar: 0.5...2.5 mm²

Remote signalling connection: screw connection
 screwdriver blade: 0.4 x 2.0 DIN 5264 (for example, SD 0.4 x 2.0 x 60, Part No. 9037160000)
 max. torque: 0.2 Nm
 stripping length: 6...6.5 mm
 solid: 0.5...1.5 mm²

Dimensions

length : 90 mm
 length with remote signalling contact: 98 mm
 height: 69 mm
 width: 17.8 mm

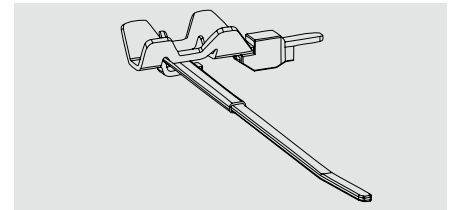
Accessories

Markers

The VSPC BASE lower section can be labelled with Dekafix-5 markers. The VSPC pluggable modules are Color coded with Dekafix-5 markers according to their rated voltage.

Shield connection

EMC SET, order number 1067470000
 The EMC set consists of a connection component with shielding and a cable tie covered with shielding braid. The RT-1 cable tie tool (order number 1296000000) can be used to fasten the cable ties professionally.



V-Test

Testing device for functional tests of the pluggable VSPC, PU II and PU I surge protection.



VARITECTOR SPC – Choice of device depending on the interface

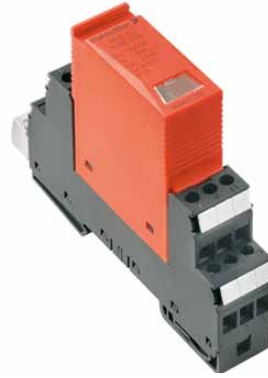
Interface	Pluggable arrestor	Part No. Arrestor	Part No. Base	Part No. Base floating ground (FG)	Pluggable arrestor with operation message (R)	Part No. Arrestor	Part No. Base	Part No. Base floating ground (FG)
0(4) ... 20 mA	VSPC 2CL 24Vdc 0,5A	8924470000	8924710000	8924270000	VSPC 2CL 24Vdc 0,5A R	8951480000	8951710000	8951720000
0(4) ... 20 mA	VSPC 1CL 24Vdc 0,5A	8924480000	8924730000	8924290000	VSPC 1CL 12Vdc 0,5A R	8951540000	8951730000	8951740000
0 ... 10 V	VSPC 2CL 24Vdc 0,5A	8924470000	8924710000	8924270000	VSPC 2CL 24Vdc 0,5A R	8951480000	8951710000	8951720000
0 ... 10 V	VSPC 1CL 24Vdc 0,5A	892448 0000	8924730000	8924290000	VSPC 1CL 12Vdc 0,5A R	8951540000	8951730000	8951740000
ADSL	VSPC Uko	8924660000	8924710000	8924270000				
ADVANT	VSPC 2CL HF 5Vdc	8924430000	8924710000	8924270000	VSPC 2CL HF 5Vdc R	8951680000	8951710000	8951720000
ARCNET (Plus)	VSPC R485 2ch	8924670000	8924710000	8924270000	VSPC R485 2ch R	8951670000	8951710000	8951720000
ASI	PU III R 48Vdc	8860350000			PU III R 48Vdc	8860350000		
	PU III R 24Vdc	8860360000			PU III R 24Vdc	8860360000		
BITBUS	VSPC 2CL HF 12Vdc	8924460000	8924710000	8924270000	VSPC 2CL 12Vdc 0,5A R	8951470000	8951710000	8951720000
BLN (Building Level Network)	VSPC 2CL HF 12Vdc	8924460000	8924710000	8924270000	VSPC 2CL 12Vdc 0,5A R	8951470000	8951710000	8951720000
	VSPC 1CL 24Vdc 0,5A	892448 0000	8924730000	8924290000	VSPC 1CL 12Vdc 0,5A R	8951540000	8951730000	8951740000
CAN-Bus	VSPC 2CL HF 12Vdc	8924460000	8924710000	8924270000	VSPC 2CL HF 12Vdc R	8951690000	8951710000	8951720000
C-BUS	VSPC 2CL HF 12Vdc	8924460000	8924710000	8924270000	VSPC 2CL HF 12Vdc R	8951690000	8951710000	8951720000
CC-LINK	VSPC 2CL HF 12Vdc	8924460000	8924710000	8924270000	VSPC 2CL HF 12Vdc R	8951690000	8951710000	8951720000
Data Highway (Plus), DH+	VSPC 2CL HF 12Vdc	8924460000	8924710000	8924270000	VSPC 2CL HF 12Vdc R	8951690000	8951710000	8951720000
Datex-P	VSPC 2CL HF 12Vdc	8924460000	8924710000	8924270000	VSPC 2CL HF 12Vdc R	8951690000	8951710000	8951720000
DeviceNet	VSPC 2CL HF 12Vdc	8924460000	8924710000	8924270000	VSPC 2CL HF 12Vdc R	8951690000	8951710000	8951720000
DIN Detecting Bus System	VSPC 2CL HF 12Vdc	8924460000	8924710000	8924270000	VSPC 2CL HF 12Vdc R	8951690000	8951710000	8951720000
Duplex/Miniplex	VSPC 1CL 12Vdc 0,5A	8924450000	8924730000	8924290000	VSPC 1CL 12Vdc 0,5A R	8951540000	8951730000	8951740000
EIB (European Installation Bus)	VSPC 1CL 24Vdc 0,5A	892448 0000	8924730000	8924290000	VSPC 1CL 24Vdc 0,5A R	8951550000	8951730000	8951740000
ET 200	VSPC 1CL 5Vdc 0,5A	8924420000	8924730000	8924290000	VSPC 1CL 5Vdc 0,5A R	8951530000	8951730000	8951740000
E1	VSPC Uko	8924660000	8924710000	8924270000				
	VSPC 2CL HF 5Vdc	8924430000	8924710000	8924270000	VSPC 2CL HF 5Vdc R	8951680000	8951710000	8951720000
FIPIO/FIPWAY	VSPC 2CL HF 5Vdc	8924430000	8924710000	8924270000	VSPC 2CL HF 5Vdc R	8951680000	8951710000	8951720000
Genius I/O Bus	VSPC 2CL 12Vdc 0,5A	8924440000	8924710000	8924270000	VSPC 2CL 12Vdc 0,5A R	8951470000	8951710000	8951720000
Hart	VSPC 1CL 24Vdc 0,5A	892448 0000	8924730000	8924290000	VSPC 1CL 24Vac 0,5A R	8951560000	8951730000	8951740000
HDSL	VSPC Uko	8924660000	8924710000	8924270000				
IEC-BUS	VSPC 2CL HF 5Vdc	8924430000	8924710000	8924270000	VSPC 2CL HF 5Vdc R	8951680000	8951710000	8951720000
ISDN Basic connection (Uko-Bus)	VSPC Uko	8924660000	8924710000	8924270000				
Cathodic corrosion prevention	VSPC GDT 2ch 90V20kA	8924570000	8924740000	8924300000				
LON (Works)	VSPC 1CL 48Vac 0,5A	8924520000	8924730000	8924290000				
LRE Networks	VSPC 2CL HF 5Vdc	8924430000	8924710000	8924270000	VSPC 2CL HF 5Vdc R	8951680000	8951710000	8951720000
LUXMATE-Bus	VSPC 2CL HF 24Vdc	8924510000	8924710000	8924270000	VSPC 2CL HF 24Vdc R	8951700000	8951710000	8951720000
M-Bus (Remote readout of counter)	VSPC 1CL 24Vac 0,5A	8924500000	8924730000	8924290000	VSPC 1CL 24Vdc 0,5A R	8951550000	8951730000	8951740000
MODBUS(-PLUS)	VSPC 2CL HF 12Vdc	8924460000	8924710000	8924270000	VSPC 2CL HF 12Vdc R	8951690000	8951710000	8951720000
MPI-Bus	VSPC R485 2ch	8924670000	8924710000	8924270000			8951710000	8951720000
N1 LAN	VSPC 2CL HF 5Vdc	8924430000	8924710000	8924270000	VSPC 2CL HF 5Vdc R	8951680000	8951710000	8951720000
N2 Bus	VSPC 2SL 5Vdc 0,5A	8924210000	8924720000	8924280000	VSPC 2SL 5Vdc 0,5A R	8951610000	8951770000	8951780000
P-NET	VSPC 2CL HF 12Vdc	8924460000	8924710000	8924270000	VSPC 2CL HF 12Vdc R	8951690000	8951710000	8951720000
Procontic CS31	VSPC 1CL 12Vdc 0,5A	8924450000	8924730000	8924290000	VSPC 1CL 12Vdc 0,5A R	8951540000	8951730000	8951740000
	VSPC 2CL HF 12Vdc	8924460000	8924710000	8924270000	VSPC 2CL HF 12Vdc R	8951690000	8951710000	8951720000
Procontic T200	VSPC 2CL HF 12Vdc	8924460000	8924710000	8924270000	VSPC 2CL HF 12Vdc R	8951690000	8951710000	8951720000
Profibus DP (FMS)	VSPC 2CL HF 5Vdc	8924430000	8924710000	8924270000	VSPC 2CL HF 5Vdc R	8951680000	8951710000	8951720000
	VSPC 2CL HF 12Vdc	8924460000	8924710000	8924270000	VSPC 2CL HF 12Vdc R	8951690000	8951710000	8951720000
Process-Bus, Panel-Bus	VSPC 2CL HF 12Vdc	8924460000	8924710000	8924270000	VSPC 2CL HF 12Vdc R	8951690000	8951710000	8951720000
PT100	VSPC 3/4WIRE 24VDC	8924550000	8924740000	8924300000				
P-Bus	PU III R 24Vdc	8860360000			PU III R 24Vdc	8860360000		
PSM-EG-RS422...	VSPC 2CL HF 12Vdc	8924460000	8924710000	8924270000	VSPC 2CL HF 12Vdc R	8951690000	8951710000	8951720000
PSM-EG-RS485...	VSPC 2CL HF 12Vdc	8924460000	8924710000	8924270000	VSPC 2CL HF 12Vdc R	8951690000	8951710000	8951720000
RACKBUS	VSPC 2CL HF 5Vdc	8924430000	8924710000	8924270000	VSPC 2CL HF 5Vdc R	8951680000	8951710000	8951720000
RS 422A, V.11, X.27, RS 423A	VSPC 2CL HF 12Vdc	8924460000	8924710000	8924270000	VSPC 2CL HF 12Vdc R	8951690000	8951710000	8951720000
RS 449	VSPC 2CL HF 12Vdc	8924460000	8924710000	8924270000	VSPC 2CL HF 12Vdc R	8951690000	8951710000	8951720000
RS 485	VSPC R485 2ch	8924670000	8924710000	8924270000	VSPC R485 2ch R	8951670000	8951710000	8951720000
RS-232-C/V.24	VSPC 2CL HF 12Vdc	8924460000	8924710000	8924270000	VSPC 2CL HF 12Vdc R	8951690000	8951710000	8951720000
SDLC	VSPC 2CL HF 12Vdc	8924460000	8924710000	8924270000	VSPC 2CL HF 12Vdc R	8951690000	8951710000	8951720000
SDSL	VSPC Uko	8924660000	8924710000	8924270000				
SecuriLan-LON-Bus	VSPC 1CL 12Vdc 0,5A	8924450000	8924730000	8924290000	VSPC 1CL 12Vdc 0,5A R	8951540000	8951730000	8951740000
SHDSL	VSPC Uko	8924660000	8924710000	8924270000				
SINEC L1	VSPC 2CL HF 5Vdc	8924430000	8924710000	8924270000	VSPC 2CL HF 5Vdc R	8951680000	8951710000	8951720000
SINEC L2 DP	VSPC 2CL HF 5Vdc	8924430000	8924710000	8924270000	VSPC 2CL HF 5Vdc R	8951680000	8951710000	8951720000
Profibus DP	VSPC R485 2ch	8924670000	8924710000	8924270000	VSPC R485 2ch R	8951670000	8951710000	8951720000
T-DSL	VSPC Uko	8924660000	8924710000	8924270000				
Telephone analog	VSPC Uko	8924660000	8924710000	8924270000				
TTY, 0(4) - 20 mA	VSPC 2CL 24Vdc 0,5A	8924470000	8924710000	8924270000	VSPC 2CL 24Vdc 0,5A R	8951480000	8951710000	8951720000
U-BUS	VSPC GDT 2ch 90V20kA	8924570000	8924740000	8924300000				
VDSL	VSPC Uko	8924660000	8924710000	8924270000				
V.35	VSPC 2CL HF 5Vdc	8924430000	8924710000	8924270000	VSPC 2CL HF 5Vdc R	8951680000	8951710000	8951720000
X.21/X.24	VSPC 2CL HF 12Vdc	8924460000	8924710000	8924270000	VSPC 2CL HF 12Vdc R	8951690000	8951710000	8951720000
X.25/X.31	VSPC 2CL HF 12Vdc	8924460000	8924710000	8924270000	VSPC 2CL HF 12Vdc R	8951690000	8951710000	8951720000

This tables contains recommendations for the choice of device. Our technical consultants will be glad to assist you with your individual requirements.

VARITECTOR SPC

VSPC 1CL – Protection for one analog signal

- Optional monitoring function with status indicator and alert function
- Pluggable arrester (plug-in / disconnect interruption-free and impedance neutral)
- Testable with V-TEST instrument
- Version with non-earthed PE connection for avoiding potential differences
- Usable in accordance with installations standard IEC 62305
- Integrated PE contact in base element, safely discharges up to 20 kA (8/20 μ s) and 2.5 kA (10/350 μ s) to PE



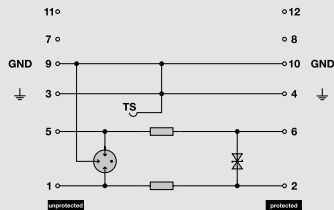
Technical Data

for all VSPC 1CL

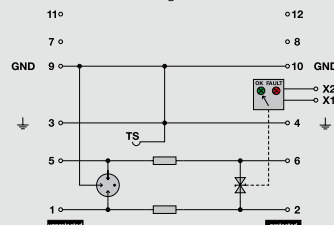
Dielectric strength with FG against PE	> 500 V
Volume resistivity per path	2.2 Ω
Overstressed fault mode	Mode 2
Requirement category acc. to IEC 61643-21	C1; C2; C3; D1
Surge strength C1	< 1 kA / 8/20 μ s
Surge strength C2	5 kA / 8/20 μ s
Surge strength C3	100 A / 10/1000 μ s
Surge strength D1	1 kA 10/350 μ s
Rated discharge current I_n (8/20 μ s) wire-wire / wire-PE / GND-PE	2.5 kA / 2.5 kA / 2.5 kA
Rated discharge current I_{max} (8/20 μ s) wire-wire / wire-PE / GND-PE	10 kA / 10 kA / 10 kA
Lightning test current, I_{mp} (10/350 μ s) wire-wire / wire-PE / GND-PE	2.5 kA / 2.5 kA / 2.5 kA
Type of connection	Pluggable in VSPC BASE
Storage temperature	-40 °C...+80 °C
Ambient temperature (operational)	-40 °C...+70 °C
Rel. humidity	5 %...96 % RH
Degree of protection	IP20

Approvals

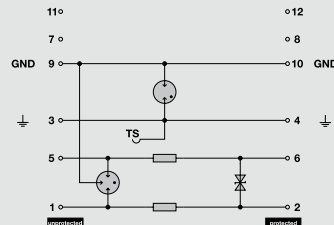
UL Listed (USL). Assessed to UL497B. File ref. E 311081



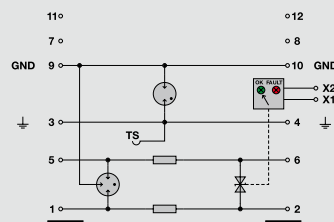
Complete module, direct earthing



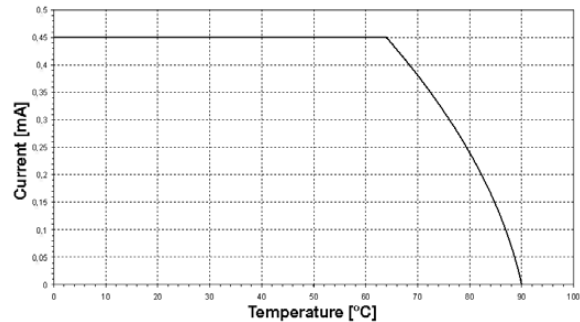
Complete module, direct earthing, with remote alert



Complete module, indirect earthing



Complete module, indirect earthing, with remote alert



Dimensions of complete module (arrester + base element) Without telecomm. contact With telecomm. contact (R)

Length x width x height 90 x 17.8 x 69 mm 98 x 17.8 x 69 mm

Note

Base elements / base to arresters



Ordering Data for Base

Type	Qty.	Part No.
Base element, direct earthing	1	8924730000
Base element, indirect earthing via spark gap (FG, floating ground)	1	8924290000
Base element, direct earthing with remote alert	1	8951730000
Base element, indirect earthing with remote alert	1	8951740000

Note: The basis elements are to be ordered separately

VSPC 1CL – Arrester / plug-in elements



Ordering Data

Rated voltage (DC)
Max. continuous voltage, U_c (DC)
Alternating-current strength
Rated current
Surge strength
Signaling contact
Optical function indicator (VSPC R)
Transmission test (-3dB)
Impulse reset
Tested
Residual voltage U_r wire-wire / wire-PE / GND-PE
Protection level on output side sym., input 1 kV/ μ s, typ. input 8/20 μ s, typ.
Protection level on output side unsym., input 1 kV/ μ s, typ. input 8/20 μ s, typ.
Ordering data
Without signaling contact/function indicator Type
Part No.
With signaling contact/function indicator Type
Part No.
Qty.
Note

VSPC 1CL 5 V DC

5 V DC
6.4 V DC
450 mA
U_N 250 V AC 0.1 A 1CO at VSPC R with VSPC CONTROL UNIT green = OK; red = arrester faulty, replace
730 KHz
20 ms
acc. to IEC61643-21
< 650 V
12 V / 450 V / 650 V
< 12 V
< 12 V
< 450 V
< 650 V
VSPC 1CL 5VDC 0.5A
8924420000
VSPC 1CL 5VDC 0.5A R
8951530000
1 piece

VSPC 1CL 12 V DC

12 V DC
15 V DC
450 mA
U_N 250 V AC 0.1 A 1CO at VSPC R with VSPC CONTROL UNIT green = OK; red = arrester faulty, replace
730 KHz
20 ms
acc. to IEC61643-21
< 650 V
25 V / 450 V / 650 V
< 25 V
< 25 V
< 450 V
< 650 V
VSPC 1CL 12VDC 0.5A
8924450000
VSPC 1CL 12VDC 0.5A R
8951540000
1 piece

VSPC 1CL 24 V DC

24 V DC
28 V DC
450 mA
U_N 250 V AC 0.1 A 1CO at VSPC R with VSPC CONTROL UNIT green = OK; red = arrester faulty, replace
730 KHz
30 ms
acc. to IEC61643-21
< 650 V
45 V / 450 V / 650 V
< 45 V
< 45 V
< 450 V
< 650 V
VSPC 1CL 24VDC 0.5A
8924480000
VSPC 1CL 24VDC 0.5A R
8951550000
1 piece

Ordering Data

Rated voltage (DC)
Max. continuous voltage, U_c (DC)
Alternating-current strength
Rated current
Surge strength
Signaling contact
Optical function indicator (VSPC R)
Transmission test (-3dB)
Impulse reset
Tested
Residual voltage U_r wire-wire / wire-PE / GND-PE
Protection level on output side sym., input 1 kV/ μ s, typ. input 8/20 μ s, typ.
Protection level on output side unsym., input 1 kV/ μ s, typ. input 8/20 μ s, typ.
Ordering data
Without signaling contact/function indicator Type
Part No.
With signaling contact/function indicator Type
Part No.
Qty.
Note

VSPC 1CL 24 V AC

24 V AC / 34 V DC
28 V AC / 39 V DC
450 mA
U_N 250 V AC 0.1 A 1CO at VSPC R with VSPC CONTROL UNIT green = OK; red = arrester faulty, replace
730 KHz
30 ms
acc. to IEC61643-21
< 650 V
60 V / 450 V / 650 V
< 60 V
< 60 V
< 450 V
< 650 V
VSPC 1CL 24VAC 0.5A
8924500000
VSPC 1CL 24VAC 0.5A R
8951560000
1 piece

VSPC 1CL 48 V AC

48 V AC / 68 V DC
60 V AC / 85 V DC
350 mA
no
green = OK; red = arrester faulty, replace
730 KHz
100 ms
acc. to IEC61643-21
< 650 V
85 V / 450 V / 650 V
< 85 V
< 85 V
< 450 V
< 650 V
VSPC 1CL 48VAC 0.5A
8924520000
1 piece

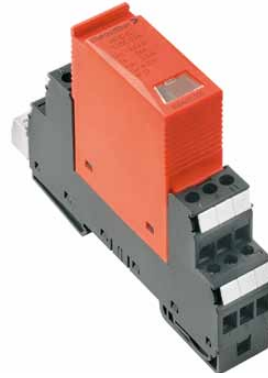
VSPC 1CL 60 V AC

60 V AC / 85 V DC
72 V AC / 101 V DC
250 mA
no
green = OK; red = arrester faulty, replace
730 KHz
100 ms
acc. to IEC61643-21
< 650 V
100 V / 450 V / 650 V
< 100 V
< 100 V
< 450 V
< 650 V
VSPC 1CL 60VAC 0.5A
8924530000
1 piece

VARITECTOR SPC

VSPC 2CL – Protection for two analog signals

- Optional monitoring function with status indicator and alert function
- Pluggable arrester (plug-in / disconnect interruption-free and impedance neutral)
- Testable with V-TEST instrument
- Space-saving design for two analog signals with signaling contact, without additional space requirements
- Version with non-earthed PE connection for avoiding potential differences
- Usable in accordance with installations standard IEC 62305
- Integrated PE contact in base element, safely discharges up to 20 kA (8/20 μ s) and 2.5 kA (10/350 μ s) to PE



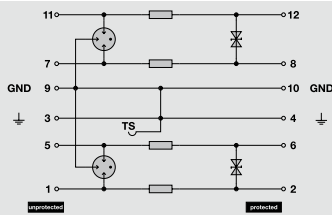
Technical Data

for all VSPC 2CL

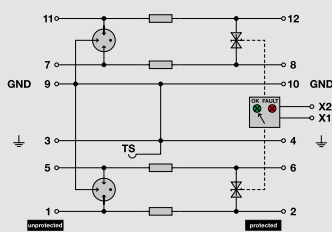
Dielectric strength with FG against PE	> 500 V
Volume resistivity per path	2.2 Ω
Overstressed fault mode	Mode 2
Requirement category acc. to IEC 61643-21	C1; C2; C3; D1
Surge strength C1	< 1 kA / 8/20 μ s
Surge strength C2	5 kA / 8/20 μ s
Surge strength C3	100 A / 10/1000 μ s
Surge strength D1	1 kA 10/350 μ s
Rated discharge current I_n (8/20 μ s) wire-wire / wire-PE / GND-PE	2.5 kA / 2.5 kA / 2.5 kA
Rated discharge current I_{max} (8/20 μ s) wire-wire / wire-PE / GND-PE	10 kA / 2 x 10 kA / 10kA
Lightning test current, I_{mp} (10/350 μ s) wire-wire / wire-PE / GND-PE	2.5 kA / 2.5 kA / 2.5 kA
Degree of protection	IP20
Type of connection	Pluggable in VSPC BASE
Storage temperature	-40 °C...+80 °C
Ambient temperature (operational)	-40 °C...+70 °C
Rel. humidity	5 %...96 % RH
Degree of protection	IP20

Approvals

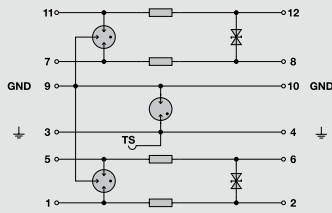
UL Listed (USL). Assessed to UL497B. File ref. E 311081



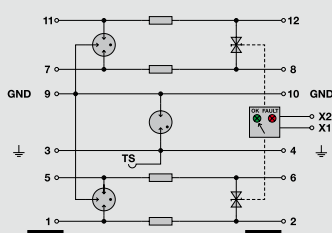
Complete module, direct earthing



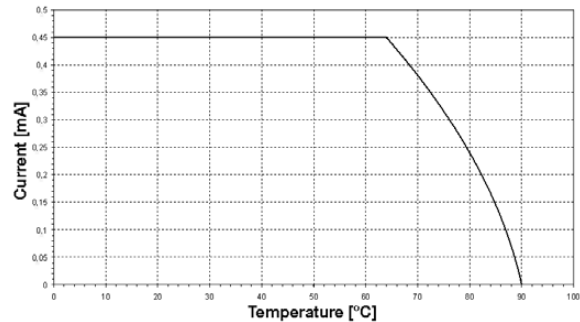
Complete module, direct earthing, with remote alert



Complete module, indirect earthing



Complete module, indirect earthing, with remote alert



Dimensions of complete module (arrester + base element) Without telecomm. contact With telecomm. contact (R)

Length x width x height 90 x 17.8 x 69 mm 98 x 17.8 x 69 mm

Note

Base elements / base to arresters



Ordering Data for Base

Type	Qty.	Part No.
Base element, direct earthing	1	8924710000
Base element, indirect earthing via spark gap (FG, floating ground)	1	8924270000
Base element, direct earthing with remote alert	1	8951710000
Base element, indirect earthing with remote alert	1	8951720000

Note: The basis elements are to be ordered separately

VSPC 2CL – arrester / plug-in elements



Ordering Data

Rated voltage (DC)
Max. continuous voltage, U_c (DC)
Alternating-current strength
Rated current
Surge strength
Signaling contact
Optical function indicator (VSPC R)
Transmission test (-3dB)
Impulse reset
Tested
Residual voltage U_r wire-wire / wire-PE / GND-PE
Protection level on output side sym., input 1 kV/ μ s, typ. input 8/20 μ s, typ.
Protection level on output side unsym., input 1 kV/ μ s, typ. input 8/20 μ s, typ.
Ordering data
Without signaling contact/function indicator Type
Part No.
With signaling contact/function indicator Type
Part No.
Qty.
Note

VSPC 2CL 5 V DC

5 V DC
6.4 V DC
450 mA
U_N 250 V AC 0.1 A 1CO at VSPC R with VSPC CONTROL UNIT
green = OK; red = arrester faulty, replace
730 KHz
20 ms
acc. to IEC61643-21
< 800 V
12 V / 450 V / 800 V
< 12 V
< 12 V
< 450 V
< 800 V
VSPC 2CL 5VDC 0.5A
8924400000
VSPC 2CL 5VDC 0.5A R
8951460000
1 piece

VSPC 2CL 12 V DC

12 V DC
15 V DC
450 mA
U_N 250 V AC 0.1 A 1CO at VSPC R with VSPC CONTROL UNIT
green = OK; red = arrester faulty, replace
2.4 MHz
20 ms
acc. to IEC61643-21
< 800 V
25 V / 450 V / 800 V
< 25 V
< 25 V
< 450 V
< 800 V
VSPC 2CL 12VDC 0.5A
8924440000
VSPC 2CL 12VDC 0.5A R
8951470000
1 piece

VSPC 2CL 24 V DC

24 V DC
28 V DC
450 mA
U_N 250 V AC 0.1 A 1CO at VSPC R with VSPC CONTROL UNIT
green = OK; red = arrester faulty, replace
2.2 MHz
30 ms
acc. to IEC61643-21
< 800 V
45 V / 450 V / 800 V
< 45 V
< 45 V
< 450 V
< 800 V
VSPC 2CL 24VDC 0.5A
8924470000
VSPC 2CL 24VDC 0.5A R
8951480000
1 piece

Ordering Data

Rated voltage (DC)
Max. continuous voltage, U_c (DC)
Alternating-current strength
Rated current
Surge strength
Signaling contact
Optical function indicator (VSPC R)
Transmission test (-3dB)
Impulse reset
Tested
Residual voltage U_r wire-wire / wire-PE / GND-PE
Protection level on output side sym., input 1 kV/ μ s, typ. input 8/20 μ s, typ.
Protection level on output side unsym., input 1 kV/ μ s, typ. input 8/20 μ s, typ.
Ordering data
Without signaling contact/function indicator Type
Part No.
With signaling contact/function indicator Type
Part No.
Qty.
Note

VSPC 2CL 24 V AC

24 V AC / 34 V DC
28 V AC / 39 V DC
450 mA
U_N 250 V AC 0.1 A 1CO at VSPC R with VSPC CONTROL UNIT
green = OK; red = arrester faulty, replace
3 MHz
450 ms
acc. to IEC61643-21
< 650 V
60 V / 450 V / 800 V
< 60 V
< 60 V
< 450 V
< 800 V
VSPC 2CL 24VAC 0.5A
8924490000
VSPC 2CL 24VAC 0.5A R
1093400000
1 piece

VSPC 2CL 48 V AC

48 V AC / 68 V DC
60 V AC / 85 V DC
350 mA
no
green = OK; red = arrester faulty, replace
3 MHz
500 ms
acc. to IEC61643-21
< 650 V
85 V / 450 V / 650 V
500 ms
< 85 V
< 85 V
< 450 V
< 650 V
VSPC 2CL 48VAC 0.5A
8951490000
VSPC 2CL 48VAC 0.5A R
8951490000
1 piece

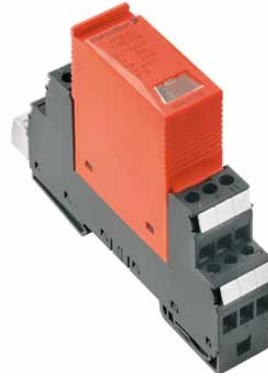
VSPC 2CL 60 V AC

60 V AC / 85 V DC
72 V AC / 101 V DC
250 mA
no
green = OK; red = arrester faulty, replace
7 MHz
500 ms
acc. to IEC61643-21
< 650 V
100 V / 450 V / 650 V
500 ms
< 100 V
< 100 V
< 450 V
< 650 V
VSPC 2CL 60VAC 0.5A
8951500000
VSPC 2CL 60VAC 0.5A R
8951500000
1 piece

VARITECTOR SPC

VSPC 2CL HF – For high transmission rates without signal delays

- Optional monitoring function with status indicator and alert function
- Pluggable arrester (plug-in / disconnect interruption-free and impedance neutral)
- Testable with V-TEST instrument
- Space-saving design with optional signaling contact, without additional space requirements
- High transmission rates with low attenuation values
- Usable in accordance with installations standard IEC 62305
- Integrated PE contact in base element, safely discharges up to 20 kA (8/20 μ s) and 2.5 kA (10/350 μ s) to PE



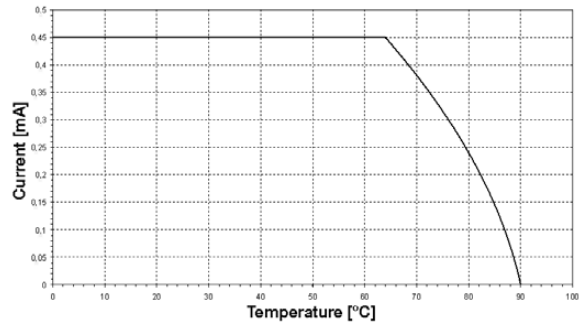
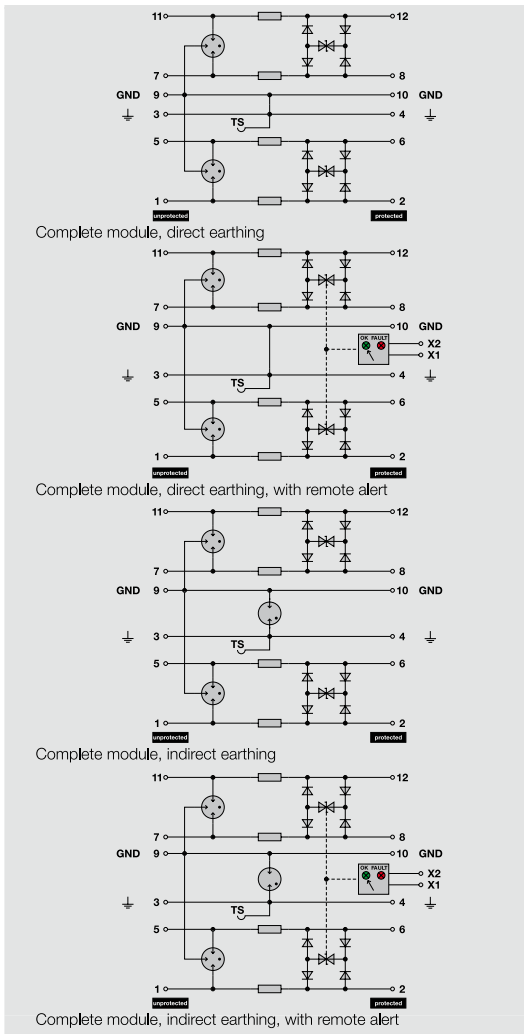
Technical Data

for all VSPC 2CL HF

Dielectric strength with FG against PE	> 500 V
Rated current	450 mA
Volume resistivity per path	2.2 Ω
Overstressed fault mode	Mode 2
Requirement category acc. to IEC 61643-21	C1; C2; C3; D1
Surge strength C1	< 1 kA / 8/20 μ s
Surge strength C2	5 kA / 8/20 μ s
Surge strength C3	100 A / 10/1000 μ s
Surge strength D1	1 kA 10/350 μ s
Rated discharge current I_n (8/20 μ s) wire-wire / wire-PE / GND-PE	2.5 kA / 2.5 kA / 2.5 kA
Rated discharge current I_{max} (8/20 μ s) wire-wire / wire-PE / GND-PE	10 kA / 2 x 10 kA / 10kA
Lightning test current, I_{imp} . (10/350 μ s) wire-wire / wire-PE / GND-PE	2.5 kA / 2.5 kA / 2.5 kA
Degree of protection	IP20
Type of connection	Pluggable in VSPC BASE
Storage temperature	-40 °C...+80 °C
Ambient temperature (operational)	-40 °C...+70 °C
Rel. humidity	5 %...96 % RH
Degree of protection	IP20

Approvals

UL Listed (USL). Assessed to UL497B. File ref. E 311081



Dimensions of complete module (arrester + base element) Without telecomm. contact With telecomm. contact (R)

Length x width x height 90 x 17.8 x 69 mm 98 x 17.8 x 69 mm

Note

Base elements / base to arresters



Ordering Data for Base

Type	Qty.	Part No.
Base element, direct earthing	1	8924710000
Base element, indirect earthing via spark gap (FG, floating ground)	1	8924270000
Base element, direct earthing with remote alert	1	8951710000
Base element, indirect earthing with remote alert	1	8951720000

Note: The basis elements are to be ordered separately

VSPC 2CL HF – Arrester / plug-in elements



Ordering Data

Rated voltage (DC)
Max. continuous voltage, U_c (DC)
Alternating-current strength
Surge strength
Signaling contact
Optical function indicator (VSPC R)
Transmission test (-3dB)
Impulse reset
Tested
Residual voltage U_r wire-wire / wire-PE / GND-PE
Protection level on output side sym., input 1 kV/ μ s, typ. input 8/20 μ s, typ.
Protection level on output side unsym., input 1 kV/ μ s, typ. input 8/20 μ s, typ.

VSPC 2CL HF 5 V DC

5 V DC
6.4 V DC
U_N 250 V AC 0.1 A 1CO at VSPC R with VSPC CONTROL UNIT green = OK; red = arrester faulty, replace
1.5 MHz
20 ms
acc. to IEC61643-21
< 800 V
12 V / 450 V / 800 V
< 12 V
< 12 V
< 450 V
< 800 V

VSPC 2CL HF 12 V DC

12 V DC
15 V DC
U_N 250 V AC 0.1 A 1CO at VSPC R with VSPC CONTROL UNIT green = OK; red = arrester faulty, replace
1.5 MHz
20 ms
acc. to IEC61643-21
< 800 V
25 V / 450 V / 800 V
< 25 V
< 25 V
< 450 V
< 800 V

VSPC 2CL HF 24 V DC

24 V DC
28 V DC
U_N 250 V AC 0.1 A 1CO at VSPC R with VSPC CONTROL UNIT green = OK; red = arrester faulty, replace
1.5 MHz
40 ms
acc. to IEC61643-21
< 800 V
45 V / 450 V / 800 V
< 45 V
< 45 V
< 450 V
< 800 V

Ordering data

Without signaling contact/function indicator Type
Part No.
With signaling contact/function indicator Type
Part No.
Qty.

VSPC 2CL HF 5VDC
8924430000
VSPC 2CL HF 5VDC R
8951680000
1 piece

VSPC 2CL HF 12VDC
8924460000
VSPC 2CL HF 12VDC R
8951690000
1 piece

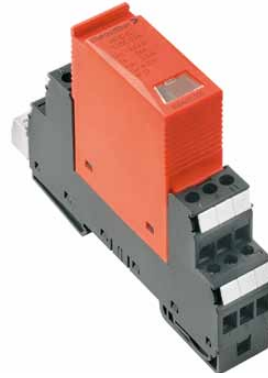
VSPC 2CL HF 24VDC
8924510000
VSPC 2CLHF 24VDC R
8951700000
1 piece

Note

VARITECTOR SPC

VSPC 1CL PW – Combinations of current loop signal and circuit breaker

- Optional monitoring function with status indicator
- Pluggable arrester (plug-in / disconnect interruption-free and impedance neutral)
- Usable in accordance with installations standard IEC 62305
- Integrated PE contact in base element, safely discharges up to 20 kA (8/20 µs) and 2.5 kA (10/350 µs) to PE



Technical Data

for all VSPC 1CL PW

C&I protection data

Rated voltage (DC)	24 V AC / 34 V DC
Max. continuous voltage, U_c (DC)	27 V AC / 38 V DC
Dielectric strength with FG against PE	> 500 V
Rated current	450 mA
Volume resistivity per path	2.2 Ω
Overstressed fault mode	Mode 2
Requirement category acc. to IEC 61643-21	C1; C2; C3; D1
Optical function indicator	green = OK; red = arrester faulty, replace
Rated voltage (AC/DC)	24 V AC / 33 V DC
Surge strength C1	< 1 kA / 8/20 µs
Surge strength C2	5 kA / 8/20 µs
Surge strength C3	100 A / 10/1000 µs
Surge strength D1	2.5 kA 10/350 µs
Transmission test (-3dB)	730 KHz
Impulse reset	10 ms
Tested	acc. to IEC61643-21, IEC61643-1

Rated discharge current I_n (8/20 µs) wire-wire / wire-PE / GND-PE	2.5 kA / 2.5 kA / 2.5 kA
Rated discharge current I_{max} (8/20 µs) wire-wire / wire-PE / GND-PE	10 kA / 10 kA / 10 kA
Lightning test current, I_{imp} (10/350 µs) wire-wire / wire-PE / GND-PE	2.5 kA / 2.5 kA / 2.5 kA
Residual voltage U_p	800 V
Residual voltage U_p wire-wire / wire-PE / GND-PE	60 V / 450 V / 800 V
Protection level on output side sym., input 1 kV/µs, typ.	< 60 V
Protection level on output side sym., input 8/20 µs, typ.	< 60 V
Protection level on output side unsym., input 1 kV/µs, typ.	< 450 V
Protection level on output side unsym., input 8/20 µs, typ.	< 800 V

Protection of the device

Rated voltage (DC)	24 V AC / 34 V DC
Max. continuous voltage, U_c (DC)	27 V AC / 38 V DC
Combined pulse	6 kV
Residual voltage U_r	900 V
Rated current	10 A

General data

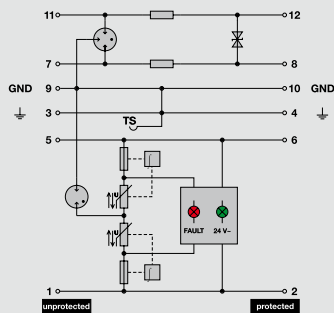
Type of connection	Pluggable in VSPC BASE
Storage temperature	-40 °C...+80 °C
Requirement category acc. to IEC 61643-1	Class III
Ambient temperature (operational)	-40 °C...+70 °C
Rel. humidity	5 %...96 % RH
Degree of protection	IP20

Approvals

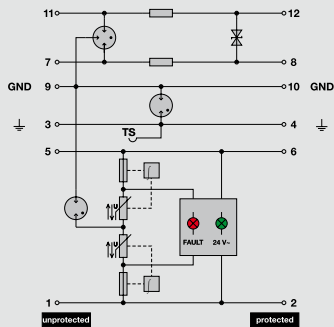
UL Listed (USL). Assessed to UL497B. File ref. E 311081

Dimensions of complete module (arrester + base element) Without telecomm. contact With telecomm. contact (R)

Length x width x height	90 x 17.8 x 69 mm	98 x 17.8 x 69 mm
-------------------------	-------------------	-------------------



Complete module, direct earthing



Complete module, indirect earthing

Base elements / base to arresters



Ordering Data for Base

Type	Qty.	Part No.
Base element, direct earthing	1	1070230000
Base element, indirect earthing via spark gap (FG, floating ground)	1	1105700000

Note: The basis elements are to be ordered separately

VSPC 1CL PW – Arrester / plug-in elements

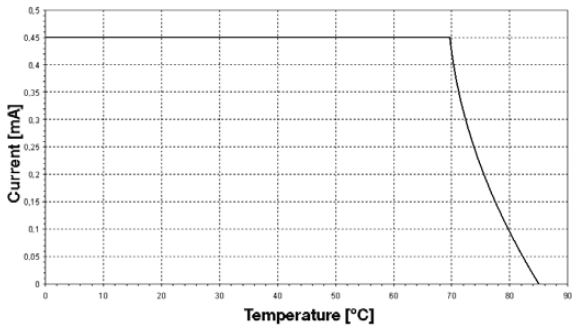


Ordering Data

Without signaling contact/function indicator Type
Part No.
Qty.
Note

VSPC 1CL PW 24 V

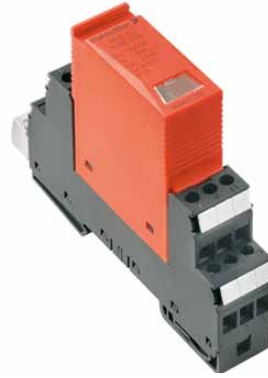
VSPC 1CL PW 24V 0.5A
8951510000
1 piece



VARITECTOR SPC

VSPC 2SL – Protection for two binary signals

- Optional monitoring function with status indicator and alert function
- Pluggable arrester (plug-in / disconnect interruption-free and impedance neutral)
- Testable with V-TEST instrument
- Version with non-earthed PE connection for avoiding potential differences
- Usable in accordance with installations standard IEC 62305
- Integrated PE contact in base element, safely discharges up to 20 kA (8/20 μ s) and 2.5 kA (10/350 μ s) to PE



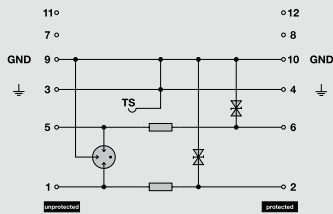
Technical Data

for all VSPC 2SL

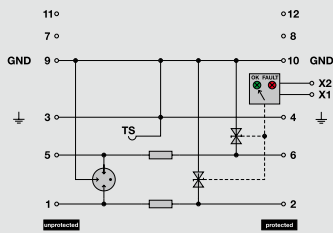
Dielectric strength with FG against PE	> 500 V
Volume resistivity per path	4.7 Ω
Overstressed fault mode	Mode 2
Requirement category acc. to IEC 61643-21	C1; C2; C3; D1
Surge strength C1	< 1 kA / 8/20 μ s
Surge strength C2	5 kA / 8/20 μ s
Surge strength C3	100 A / 10/1000 μ s
Surge strength D1	2.5 kA 10/350 μ s
Rated discharge current I_n (8/20 μ s) wire-wire / wire-PE / GND-PE	2.5 kA / 2.5 kA / 2.5 kA
Rated discharge current I_{max} (8/20 μ s) wire-wire / wire-PE / GND-PE	10 kA / 10 kA / 10kA
Lightning test current, I_{mp} (10/350 μ s) wire-wire / wire-PE / GND-PE	2.5 kA / 2.5 kA / 2.5 kA
Type of connection	Pluggable in VSPC BASE
Storage temperature	-40 °C...+80 °C
Ambient temperature (operational)	-40 °C...+70 °C
Rel. humidity	5 %...96 % RH
Degree of protection	IP20

Approvals

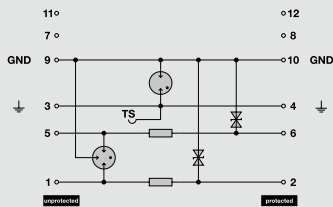
UL Listed (USL). Assessed to UL497B. File ref. E 311081



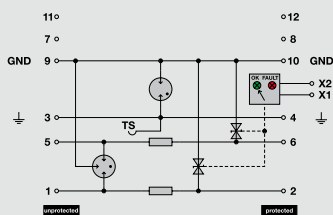
Complete module, direct earthing



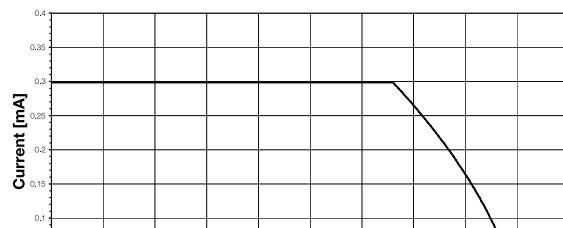
Complete module, direct earthing, with remote alert



Complete module, indirect earthing



Complete module, indirect earthing, with remote alert



Dimensions of complete module (arrester + base element) Without telecomm. contact With telecomm. contact (R)

Length x width x height

90 x 17.8 x 69 mm

98 x 17.8 x 69 mm

Note

Base elements / base to arresters



Ordering Data for Base

Type	Qty.	Part No.
Base element, direct earthing	1	8924720000
Base element, indirect earthing via spark gap (FG, floating ground)	1	8924280000
Base element, direct earthing with remote alert	1	8951770000
Base element, indirect earthing with remote alert	1	8951780000

Note: The basis elements are to be ordered separately

VSPC 2SL – Arrester / plug-in elements



Ordering Data

Rated voltage U_N	
Max. continuous voltage U_c	
Signaling contact	
Optical function indicator (VSPC R)	
Transmission test (-3dB)	
Impulse reset	
Tested	
Residual voltage U_r wire-wire / wire-PE / GND-PE	
Protection level on output side sym., input 1 kV/ μ s, typ. input 8/20 μ s, typ.	
Protection level on output side unsym., input 1 kV/ μ s, typ. input 8/20 μ s, typ.	
Rated current	
Ordering data	
Without signaling contact/function indicator	Type
Part No.	
With signaling contact/function indicator	Type
Part No.	
Qty.	
Note	

VSPC 2SL 5 V DC

5 V DC
6.4 V DC
U_N 250 V AC 0.1 A 1CO at VSPC R with VSPC CONTROL UNIT green = OK; red = arrester faulty, replace
750 KHz
20 ms
acc. to IEC61643-21
< 25 V
25 V / 25 V / 25 V
< 25 V
< 25 V
< 12 V
< 25 V
300 mA
VSPC 2SL 5VDC 0.5A
8924210000
VSPC 2SL 5VDC 0.5A R
8951610000
1 piece

VSPC 2SL 12 V DC

12 V DC
15 V DC
U_N 250 V AC 0.1 A 1CO at VSPC R with VSPC CONTROL UNIT green = OK; red = arrester faulty, replace
750 KHz
20 ms
acc. to IEC61643-21
< 50 V
45 V / 50 V / 50 V
< 45 V
< 45 V
< 25 V
< 50 V
300 mA
VSPC 2SL 12VDC 0.5A
8924230000
VSPC 2SL 12VDC 0.5A R
8951620000
1 piece

VSPC 2SL 12 V AC

12 V AC / 16 V DC
13,2 V AC / 18 V DC
no
green = OK; red = arrester faulty, replace
750 KHz
20 ms
acc. to IEC61643-21
< 50 V
55 V / 50 V / 50 V
< 55 V
< 55 V
< 30 V
< 50 V
300 mA
VSPC 2SL 12VAC 0.5A
8924250000
1 piece

VSPC 2SL 24 V DC

24 V DC
28 V DC
U_N 250 V AC 0.1 A 1CO at VSPC R with VSPC CONTROL UNIT green = OK; red = arrester faulty, replace
750 KHz
30 ms
acc. to IEC61643-21
< 60 V
80 V / 60 V / 60 V
< 80 V
< 80 V
< 40 V
< 60 V
300 mA
VSPC 2SL 24VDC 0.5A
8924330000
VSPC 2SL 24VDC 0.5A R
8951630000
1 piece

Ordering Data

Rated voltage U_N	
Max. continuous voltage U_c	
Signaling contact	
Optical function indicator (VSPC R)	
Transmission test (-3dB)	
Impulse reset	
Tested	
Residual voltage U_r wire-wire / wire-PE / GND-PE	
Protection level on output side sym., input 1 kV/ μ s, typ. input 8/20 μ s, typ.	
Protection level on output side unsym., input 1 kV/ μ s, typ. input 8/20 μ s, typ.	
Rated current	
Ordering data	
Without signaling contact/function indicator	Type
Part No.	
With signaling contact/function indicator	Type
Part No.	
Qty.	
Note	

VSPC 2SL 24 V AC

24 V AC / 34 V DC
28 V AC / 39 V DC
U_N 250 V AC 0,1 A 1CO at VSPC R with VSPC CONTROL UNIT green = OK; red = arrester faulty, replace
750 KHz
60 ms
acc. to IEC61643-21
< 60 V
80 V / 60 V / 60 V
< 110 V
< 80 V
< 60 V
< 60 V
300 mA
VSPC 2SL 24VAC 0.5A
8924350000
VSPC 2SL 24VAC 0.5A R
8951640000
1 piece

VSPC 2SL 48 V AC

48 V AC / 68 V DC
60 V AC / 85 V DC
no
green = OK; red = arrester faulty, replace
750 KHz
60 ms
acc. to IEC61643-21
< 125 V
80 V / 125 V / 125 V
< 210 V
< 80 V
< 85 V
< 125 V
250 mA
VSPC 2SL 48VAC 0.5A
8924370000
1 piece

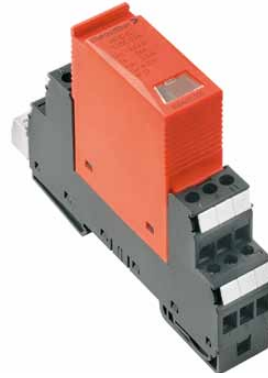
VSPC 2SL 60 V AC

60 V AC / 85 V DC
72 V AC / 101 V DC
no
green = OK; red = arrester faulty, replace
750 KHz
60 ms
acc. to IEC61643-21
< 165 V
80 V / 165 V / 165 V
< 280 V
< 80 V
< 100 V
< 165 V
200 mA
VSPC 2SL 60VAC 0.5A
8924390000
1 piece

VARITECTOR SPC

VSPC 4SL – Protection for four binary signals

- Optional monitoring function with status indicator and alert function
- Pluggable arrester (plug-in / disconnect interruption-free and impedance neutral)
- Testable with V-TEST instrument
- Space-saving design for four binary signals with signaling contact, without additional space requirements
- Version with non-earthed PE connection for avoiding potential differences
- Usable in accordance with installations standard IEC 62305
- Integrated PE contact in base element, safely discharges up to 20 kA (8/20 μ s) and 2.5 kA (10/350 μ s) to PE



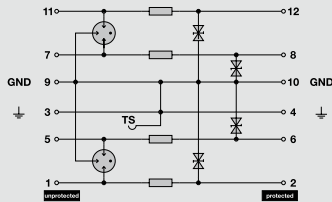
Technical Data

for all VSPC 4SL

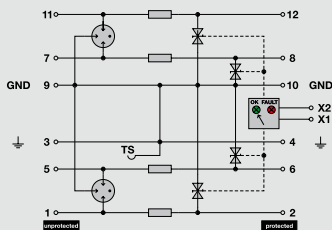
Volume resistivity per path	4.7 Ω
Overstressed fault mode	Mode 2
Requirement category acc. to IEC 61643-21	C1; C2; C3; D1
Surge strength C1	< 1 kA / 8/20 μ s
Surge strength C2	5 kA / 8/20 μ s
Surge strength C3	100 A / 10/1000 μ s
Surge strength D1	2.5 kA 10/350 μ s
Rated discharge current I_n (8/20 μ s) wire-wire / wire-PE / GND-PE	2.5 kA / 2.5 kA / 2.5 kA
Rated discharge current I_{max} (8/20 μ s) wire-wire / wire-PE / GND-PE	10 kA / 10 kA / 10 kA
Lightning test current, I_{imp} (10/350 μ s) wire-wire / wire-PE / GND-PE	2.5 kA / 2.5 kA / 2.5 kA
Type of connection	Pluggable in VSPC BASE
Storage temperature	-40 °C ... +80 °C
Ambient temperature (operational)	-40 °C ... +70 °C
Rel. humidity	5 % ... 96 % RH
Degree of protection	IP20

Approvals

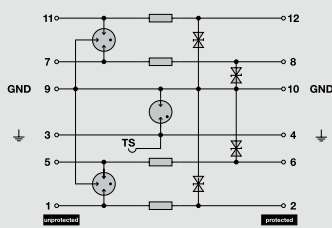
UL Listed (USL). Assessed to UL497B. File ref. E 311081



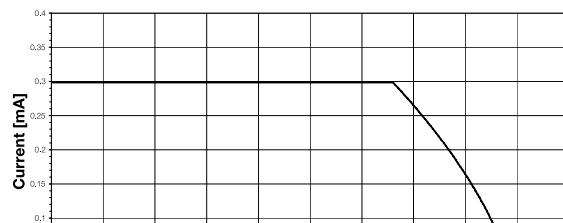
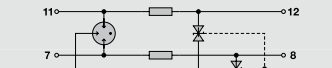
Complete module, direct earthing



Complete module, direct earthing, with remote alert



Complete module, indirect earthing



Dimensions of complete module (arrester + base element) Without telecomm. contact With telecomm. contact (R)
Length x width x height 90 x 17.8 x 69 mm 98 x 17.8 x 69 mm

Note

Base elements / base to arresters



Ordering Data for Base

Type	Qty.	Part No.
Base element, direct earthing	1	8924700000
Base element, indirect earthing via spark gap (FG, floating ground)	1	8924260000
Base element, direct earthing with remote alert	1	8951750000
Base element, indirect earthing with remote alert	1	8951760000

Note: The basis elements are to be ordered separately

VSPC 4SL – Arrester / plug-in elements



Ordering Data

Rated voltage U_N	
Max. continuous voltage U_c	
Signaling contact	
Optical function indicator (VSPC R)	
Transmission test (-3dB)	
Impulse reset	
Tested	
Residual voltage U_r wire-wire / wire-PE / GND-PE	
Protection level on output side sym., input 1 kV/ μ s, typ. input 8/20 μ s, typ.	
Protection level on output side unsym., input 1 kV/ μ s, typ. input 8/20 μ s, typ.	
Rated current	
Ordering data	
Without signaling contact/function indicator Type	
Part No.	
With signaling contact/function indicator Type	
Part No.	
Qty.	
Note	

VSPC 4SL 5 V DC

5 V DC
6.4 V DC
U_N 250 V AC 0.1 A 1CO at VSPC R with VSPC CONTROL UNIT green = OK; red = arrester faulty, replace
730 KHz
20 ms
acc. to IEC61643-21
< 25 V
25 V / 25 V / 25 V
< 25 V
< 25 V
< 12 V
< 25 V
350 mA
VSPC 4SL 5VDC 0.5A
8924200000
VSPC 4SL 5VDC 0.5A R
8951570000
1 piece

VSPC 4SL 12 V DC

12 V DC
15 V DC
U_N 250 V AC 0.1 A 1CO at VSPC R with VSPC CONTROL UNIT green = OK; red = arrester faulty, replace
750 KHz
20 ms
acc. to IEC61643-21
< 35 V
45 V / 20 V / 450 V
< 45 V
< 45 V
< 25 V
< 50 V
300 mA
VSPC 4SL 12VDC 0.5A
8924220000
VSPC 4SL 12VDC 0.5A R
8951580000
1 piece

VSPC 4SL 12 V AC

12 V AC / 16 V DC
13.2 V AC / 18 V DC
no
green = OK; red = arrester faulty, replace
750 KHz
20 ms
acc. to IEC61643-21
< 50 V
55 V / 50 V / 50 V
< 55 V
< 55 V
< 30 V
< 50 V
300 mA
VSPC 4SL 12VAC 0.5A
8924240000
1 piece

VSPC 4SL 24 V DC

24 V DC
28 V DC
U_N 250 V AC 0.1 A 1CO at VSPC R with VSPC CONTROL UNIT green = OK; red = arrester faulty, replace
750 KHz
30 ms
acc. to IEC61643-21
< 60 V
80 V / 60 V / 60 V
< 80 V
< 80 V
< 40 V
< 60 V
300 mA
VSPC 4SL 24VDC 0.5A
8924320000
VSPC 4SL 24VDC 0.5A R
8951590000
1 piece

VSPC 4SL 24 V AC

24 V AC / 34 V DC
28 V AC / 39 V DC
U_N 250 V AC 0.1 A 1CO at VSPC R with VSPC CONTROL UNIT green = OK; red = arrester faulty, replace
750 KHz
40 ms
acc. to IEC61643-21
< 60 V
80 V / 60 V / 60 V
< 110 V
< 80 V
< 60 V
< 60 V
300 mA
VSPC 4SL 24VAC 0.5A
8924340000
VSPC 4SL 24VAC 0.5A R
8951600000
1 piece

VSPC 4SL 48 V AC

48 V AC / 68 V DC
60 V AC / 85 V DC
no
green = OK; red = arrester faulty, replace
750 KHz
60 ms
acc. to IEC61643-21
< 125 V
80 V / 125 V / 125 V
< 210 V
< 80 V
< 85 V
< 125 V
250 mA
VSPC 4SL 48VAC 0.5A
1 piece

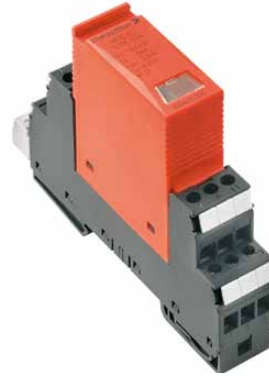
VSPC 4SL 60 V AC

60 V AC / 85 V DC
72 V AC / 101 V DC
no
green = OK; red = arrester faulty, replace
750 KHz
60 ms
acc. to IEC61643-21
< 165 V
80 V / 165 V / 165 V
< 280 V
< 80 V
< 100 V
< 165 V
200 mA
VSPC 4SL 60VAC 0.5A
8924380000
1 piece

VARITECTOR SPC

VSPC 4SL WIRE – 3/4 conductor, measurement

- Pluggable arrester (plug-in / disconnect interruption-free and impedance neutral)
- Protection of measuring bridge signals
- Testable with V-TEST instrument
- Usable in accordance with installations standard IEC 62305
- Integrated PE contact in base element, safely discharges up to 20 kA (8/20 μ s) and 2.5 kA (10/350 μ s) to PE



Technical Data

for all VSPC 4SL WIRE

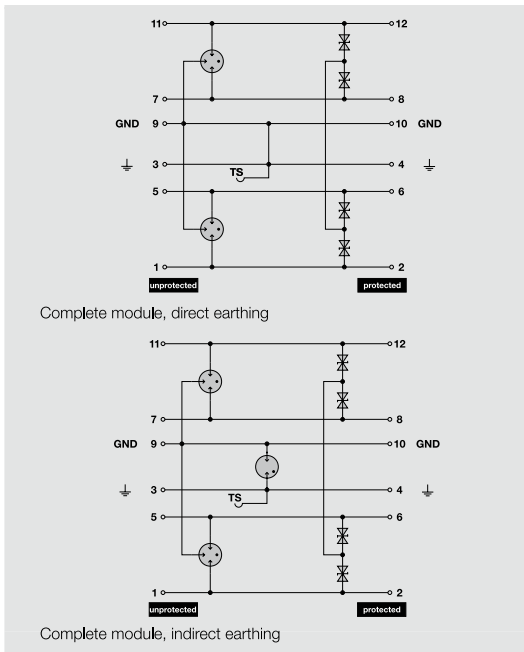
Rated current	450 mA
Volume resistivity per path	0.2 Ω
Overstressed fault mode	Mode 2
Requirement category acc. to IEC 61643-21	C1; C2; C3; D1
Surge strength C1	< 1 kA / 8/20 μ s
Surge strength C2	5 kA / 8/20 μ s
Surge strength C3	100 A / 10/1000 μ s
Surge strength D1	2.5 kA 10/350 μ s
Rated discharge current I_n (8/20 μ s) wire-wire / wire-PE / GND-PE	2.5 kA / 2.5 kA / 2.5 kA
Rated discharge current I_{max} (8/20 μ s) wire-wire / wire-PE / GND-PE	10 kA / 10 kA / 10 kA
Lightning test current, I_{mp} . (10/350 μ s) wire-wire / wire-PE / GND-PE	2.5 kA / 2.5 kA / 2.5 kA
Type of connection	Pluggable in VSPC BASE
Storage temperature	-40 °C...+80 °C
Ambient temperature (operational)	-40 °C...+70 °C
Rel. humidity	5 %...96 % RH
Degree of protection	IP20

Approvals

UL Listed (USL). Assessed to UL497B. File ref. E 311081

Dimensions of complete module (arrester + base element)	Without telecomm. contact	With telecomm. contact (R)
Length x width x height	90 x 17.8 x 69 mm	98 x 17.8 x 69 mm

Note



Base elements / base to arresters



Ordering Data for Base

Type	Qty.	Part No.
Base element, direct earthing	1	8924740000
Base element, indirect earthing via spark gap (FG, floating ground)	1	8924300000

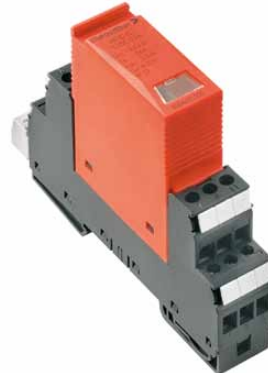
Note: The basis elements are to be ordered separately

VARITECTOR SPC

VSPC GDT – with components

Pluggable arrester with components: GDT

- Pluggable arrester (plug-in / disconnect interruption-free and impedance neutral)
- Testable with V-TEST instrument
- Integrated PE contact in base element, safely discharges up to 20 kA (8/20 μ s) and 2.5 kA (10/350 μ s) to PE



Technical Data

for all VSPC GDT

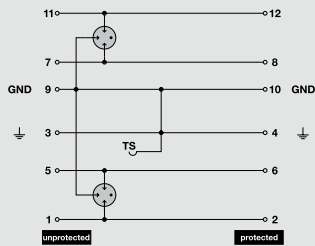
Dielectric strength with FG against PE	> 500 V
Volume resistivity per path	< 0.2 Ω
Overstressed fault mode	Mode 2
Surge strength C1	< 1 kA / 8/20 μ s
Surge strength C2	5 kA / 8/20 μ s
Surge strength C3	100 A / 10/1000 μ s
Surge strength D1	2.5 kA 10/350 μ s
Type of connection	Pluggable in VSPC BASE
Storage temperature	-40 °C...+80 °C
Ambient temperature (operational)	-40 °C...+70 °C
Rel. humidity	5 %...96 % RH
Degree of protection	IP20

Approvals

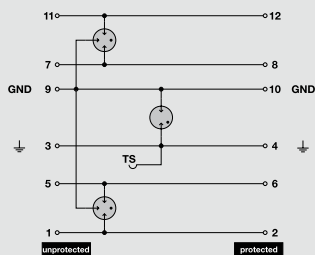
UL Listed (USL). Assessed to UL497B. File ref. E 311081

Dimensions of complete module (arrester + base element)	Without telecomm. contact	With telecomm. contact (R)
Length x width x height	90 x 17.8 x 69 mm	98 x 17.8 x 69 mm

Note



Complete module, direct earthing



Complete module, indirect earthing

Base elements / base to arresters



Ordering Data for Base

Type	Qty.	Part No.
Base element, direct earthing	1	8924740000
Base element, indirect earthing via spark gap (FG, floating ground)	1	8924300000

Note: The basis elements are to be ordered separately

VSPC GDT – Arrester / plug-in elements



Ordering Data

Ordering data	
Rated voltage (DC)	
Max. continuous voltage, U_c (DC)	
Signaling contact	
Rated current	
Transmission test (-3dB)	
Impulse reset	
Tested	
Rated discharge current I_n (8/20 μ s) wire-wire / wire-PE / GND-PE	
Rated discharge current I_{max} (8/20 μ s) wire-wire / wire-PE / GND-PE	
Rated discharge current, I_{imp} (10/350 μ s) wire-wire / wire-PE / GND-PE	
Residual voltage U_r wire-wire / wire-PE / GND-PE	
Protection level on output side sym., input 1 kV/ μ s, typ. input 8/20 μ s, typ.	
Requirement category acc. to IEC 61643-21	
Ordering data	
Without signaling contact/function indicator	Type
	Part No.
With signaling contact/function indicator	Type
	Part No.
	Qty.
Note	

VSPC GDT 2CH 90 V

Rated voltage (DC)	48 V AC / 68 V DC
Max. continuous voltage, U_c (DC)	50 V AC / 72 V DC
Signaling contact	no
Rated current	2000 mA
Transmission test (-3dB)	3 MHz
Impulse reset	
Tested	in accordance with IEC61643-21
Rated discharge current I_n (8/20 μ s) wire-wire / wire-PE / GND-PE	2 x 2.5 kA / - / 2.5 kA
Rated discharge current I_{max} (8/20 μ s) wire-wire / wire-PE / GND-PE	2 x 10 kA / - / 10 kA
Rated discharge current, I_{imp} (10/350 μ s) wire-wire / wire-PE / GND-PE	2 x 0.2 kA / - / 0.2 kA
Residual voltage U_r wire-wire / wire-PE / GND-PE	< 1000 V 650 V / 1000 V / -
Protection level on output side sym., input 1 kV/ μ s, typ. input 8/20 μ s, typ.	< 650 V < 1000 V
Requirement category acc. to IEC 61643-21	C1; C2; C3; D1
Ordering data	
Without signaling contact/function indicator	Type
	VSPC GDT 2ch 90V20kA
	8924570000
With signaling contact/function indicator	Type
	1 piece
Note	

VSPC GDT 2CH 150 V AC/230 V DC

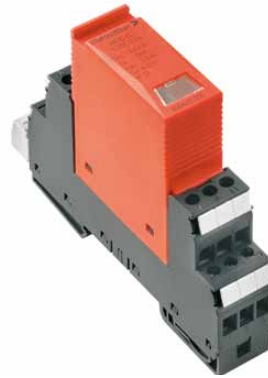
Rated voltage (DC)	110 V AC / 150 V DC
Max. continuous voltage, U_c (DC)	125 V AC / 180 V DC
Signaling contact	no
Rated current	2000 mA
Transmission test (-3dB)	3 MHz
Impulse reset	
Tested	in accordance with IEC61643-21
Rated discharge current I_n (8/20 μ s) wire-wire / wire-PE / GND-PE	2 x 2.5 kA / - / 2.5 kA
Rated discharge current I_{max} (8/20 μ s) wire-wire / wire-PE / GND-PE	2 x 10 kA / - / 10 kA
Rated discharge current, I_{imp} (10/350 μ s) wire-wire / wire-PE / GND-PE	2 x 0.2 kA / - / 0.2 kA
Residual voltage U_r wire-wire / wire-PE / GND-PE	< 800 V 800 V / 800 V / -
Protection level on output side sym., input 1 kV/ μ s, typ. input 8/20 μ s, typ.	< 450 V < 800 V
Requirement category acc. to IEC 61643-21	C1; C2; C3; D1
Ordering data	
Without signaling contact/function indicator	Type
	VSPC GDT 2CH 150Vac/230Vdc
	8924590000
With signaling contact/function indicator	Type
	1 piece
Note	

VARITECTOR SPC

VSPC MOV – with components

Pluggable arrester with components: MOV

- Optional monitoring function with status display and alert function for MOV components
- Pluggable arrester (plug-in / disconnect interruption-free and impedance neutral)
- Testable with V-TEST instrument
- Integrated PE contact in base element, safely discharges up to 20 kA (8/20 μs) and 2.5 kA (10/350 μs) to PE



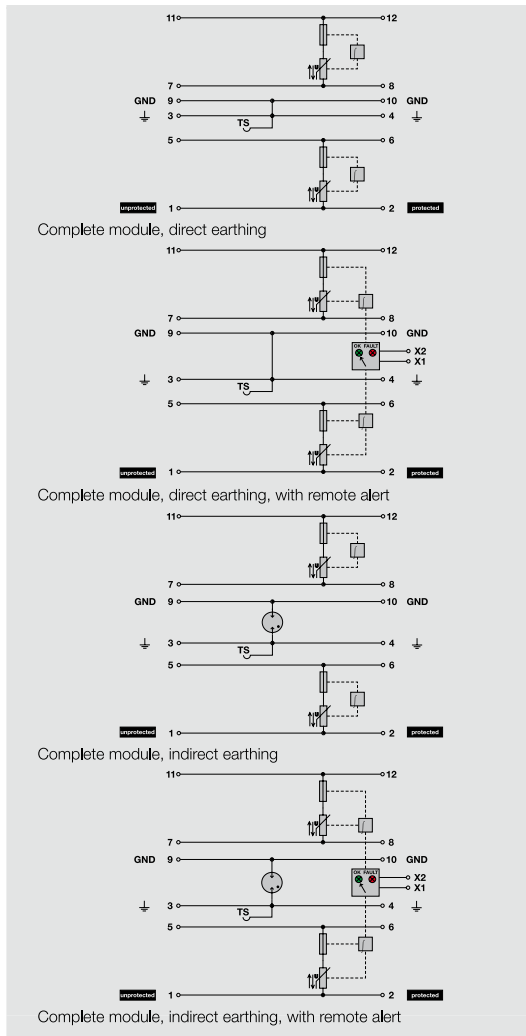
Technical Data

for all VSPC MOV

Dielectric strength with FG against PE	> 500 V
Volume resistivity per path	< 0.2 Ω
Overstressed fault mode	Mode 1
Surge strength C1	< 1 kA / 8/20 μs
Surge strength C2	1.5 kA / 8/20 μs; 1 kA / 8/20 μs at VSPC R
Surge strength D1	0.5 kA 10/350 μs
Type of connection	Pluggable in VSPC BASE
Storage temperature	-40 °C...+80 °C
Ambient temperature (operational)	-40 °C...+70 °C
Rel. humidity	5 %...96 % RH
Degree of protection	IP20

Approvals

UL Listed (USL). Assessed to UL497B. File ref. E 311081



Dimensions of complete module (arrester + base element) Without telecomm. contact With telecomm. contact (R)

Length x width x height	90 x 17.8 x 69 mm	98 x 17.8 x 69 mm
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Note

Base elements / base to arresters



Ordering Data for Base

Type	Qty.	Part No.
Base element, direct earthing	1	8924740000
Base element, indirect earthing via spark gap (FG, floating ground)	1	8924300000
Base element, direct earthing with remote alert	1	8951790000
Base element, indirect earthing with remote alert	1	8951800000

Note: The basis elements are to be ordered separately

VSPC MOV – Arrester / plug-in elements



Ordering Data

Rated voltage (DC)	
Max. continuous voltage, U_c (DC)	
Rated current	
Transmission test	
Tested	
Surge strength C3	
Rated discharge current, I_{imp} (10/350 μ s) wire-wire / wire-PE / GND-PE	
Rated discharge current I_N (8/20 μ s) wire-wire / wire-PE / GND-PE	
Rated discharge current I_{max} (8/20 μ s) wire-wire / wire-PE / GND-PE	
Residual voltage U_r wire-wire / wire-PE / GND-PE	
Protection level on output side sym., input 1 kV/ μ s, typ. input 8/20 μ s, typ.	
Requirement category acc. to IEC 61643-21	
Ordering data	
Without signaling contact/function indicator	Type
	Part No.
	Qty.
Note	

VSPC MOV 2CH 24 V

24 V AC
30 V AC / 42 V DC
10 A
1 MHz
acc. to IEC61643-21
100 A / 10/1000 μ s
0.2 kA / - / 0.5 kA
1.5 kA / - / 1.5 kA
1.5 kA / - / 1.5 kA
< 95 V
80 V / - / -
< 80 V
< 95 V
C1; C2; C3; D1
VSPC MOV 2CH 24V 8kA
8924600000
1 piece

VSPC MOV 2CH 230 V

230 V AC
275 V AC / 385 V DC
10 A
1 MHz
acc. to IEC61643-21
50 A / 10/1000 μ s
0.2 kA / - / 0.5 kA
1.5 kA / - / 1.5 kA
1.5 kA / - / 1.5 kA
< 850 V
850 V / - / -
< 600 V
< 700 V
C1; C2; C3; D1
VSPC MOV 2ch 230V8kA
8924610000
1 piece

Ordering Data

Rated voltage (DC)	
Max. continuous voltage, U_c (DC)	
Signaling contact	
Optical function indicator (VSPC R)	
Rated current	
Transmission test	
Tested	
Surge strength C3	
Rated discharge current, I_{imp} (10/350 μ s) wire-wire / wire-PE / GND-PE	
Rated discharge current I_N (8/20 μ s) wire-wire / wire-PE / GND-PE	
Rated discharge current I_{max} (8/20 μ s) wire-wire / wire-PE / GND-PE	
Residual voltage U_r wire-wire / wire-PE / GND-PE	
Protection level on output side sym., input 1 kV/ μ s, typ. input 8/20 μ s, typ.	
Requirement category acc. to IEC 61643-21	
Ordering data	
With signaling contact/function indicator	Type
	Part No.
	Qty.
Note	

VSPC MOV 2CH 24 V R

24 V AC
30 V AC / 42 V DC
U_N 250 V AC 0.1 A 1CO at VSPC R with VSPC CONTROL UNIT green = OK; red = arrester faulty, replace
10 A
1 MHz
acc. to IEC61643-21
100 A / 10/1000 μ s
0.2 kA / - / 0.5 kA
1 kA / - / 1 kA
1 kA / - / 1 kA
< 200 V
200 V / - / -
< 80 V
< 95 V
C1; C2; C3; D1
VSPC MOV 2CH 24V R
8951650000
1 piece

VSPC MOV 2CH 230 V R

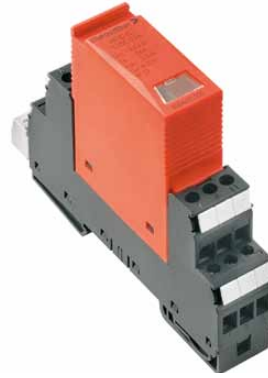
230 V AC
275 V AC / 385 V DC
U_N 250 V AC 0.1 A 1CO at VSPC R with VSPC CONTROL UNIT green = OK; red = arrester faulty, replace
10 A
1 MHz
acc. to IEC61643-21
50 A / 10/1000 μ s
0.2 kA / - / 0.5 kA
1 kA / - / 1 kA
1 kA / - / 1 kA
< 850 V
850 V / - / -
< 600 V
< 700 V
C1; C2; C3; D1
VSPC MOV 2ch 230V R
8951660000
1 piece

VARITECTOR SPC

VSPC TAZ – components

Pluggable arrester with components: TAZ

- Pluggable arrester (plug-in / disconnect interruption-free and impedance neutral)
- Testable with V-TEST instrument
- Integrated PE contact in base element, safely discharges up to 20 kA (8/20 μ s) and 2.5 kA (10/350 μ s) to PE



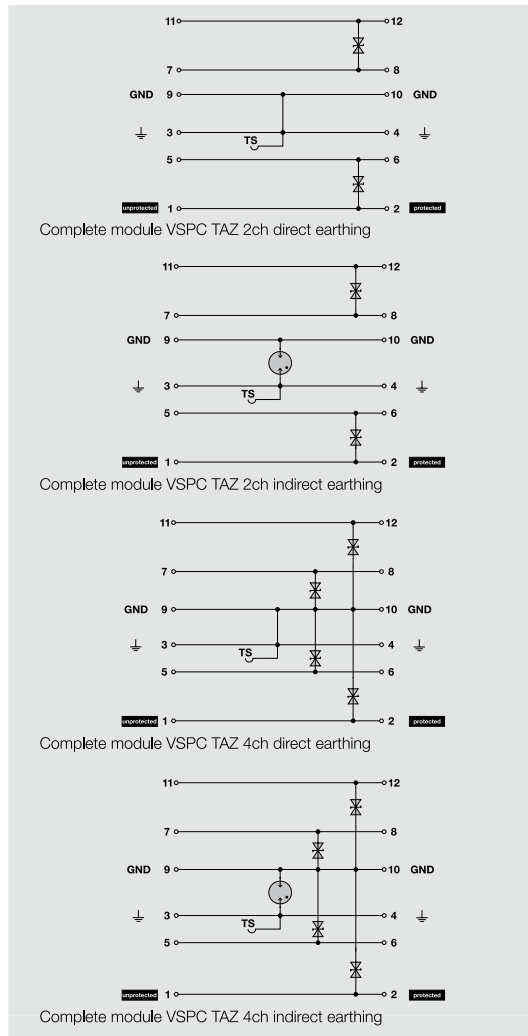
Technical Data

for all VSPC TAZ

Dielectric strength with FG against PE	> 500 V
Rated current	10 A
Volume resistivity per path	< 0.2 Ω
Overstressed fault mode	Mode 2
Requirement category acc. to IEC 61643-21	C3
Surge strength C3	20 A / 10/1000 μ s
Type of connection	Pluggable in VSPC BASE
Storage temperature	-40 °C...+80 °C
Ambient temperature (operational)	-40 °C...+70 °C
Rel. humidity	5 %...96 % RH
Degree of protection	IP20

Approvals

UL Listed (USL). Assessed to UL497B. File ref. E 311081



Dimensions of complete module (arrester + base element)	Without telecomm. contact	With telecomm. contact (R)
Length x width x height	90 x 17.8 x 69 mm	98 x 17.8 x 69 mm

Note

Base elements / base to arresters



Ordering Data for Base

Type	Qty.	Part No.
Base element, direct earthing	1	8924740000
Base element, indirect earthing via spark gap (FG, floating ground)	1	8924300000

Note: The basis elements are to be ordered separately

VARITECTOR SPC

VSPC TELE UK0

for the UK0/S0 interface in telecommunication

- Pluggable arrester (plug-in / disconnect interruption-free and impedance neutral)
- Low residual voltage
- 2-wire input interface – UK0
- Testable with V-TEST instrument
- Integrated PE contact in base element, safely discharges up to 20 kA (8/20 μ s) and 2.5 kA (10/350 μ s) to PE



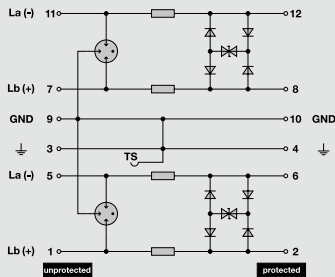
Technical Data

for all VSPC TELE UK0

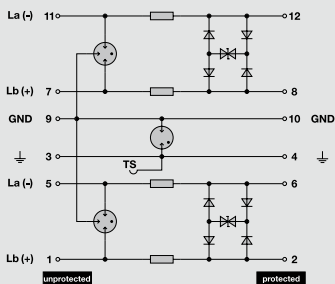
Dielectric strength with FG against PE	> 500 V
Rated current	450 mA
Volume resistivity per path	2.2 Ω
Overstressed fault mode	Mode 2
Requirement category acc. to IEC 61643-21	C1; C2; C3; D1
Surge strength C1	< 1 kA / 8/20 μ s
Surge strength C2	5 kA / 8/20 μ s
Surge strength C3	100 A / 10/1000 μ s
Surge strength D1	2.5 kA 10/350 μ s
Rated discharge current I_n (8/20 μ s) wire-wire / wire-PE / GND-PE	2.5 kA / 2.5 kA / 2.5 kA
Rated discharge current I_{max} (8/20 μ s) wire-wire / wire-PE / GND-PE	10 kA / 2 x 10 kA / 10 kA
Lightning test current, I_{imp} . (10/350 μ s) wire-wire / wire-PE / GND-PE	0.2 kA / 2 x 0.2 kA / 0.2 kA
Type of connection	Pluggable in VSPC BASE
Storage temperature	-40 °C...+80 °C
Ambient temperature (operational)	-40 °C...+70 °C
Rel. humidity	5 %...96 % RH
Degree of protection	IP20

Approvals

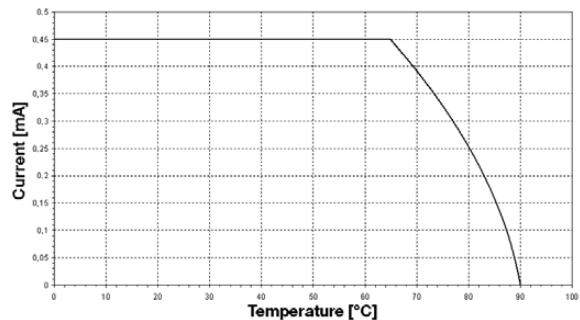
UL Listed (USL). Assessed to UL497B. File ref. E 311081



Complete module, direct earthing



Complete module, indirect earthing



Dimensions of complete module (arrester + base element)	Without telecomm. contact	With telecomm. contact (R)
Length x width x height	90 x 17.8 x 69 mm	98 x 17.8 x 69 mm

Note

Base elements / base to arresters



Ordering Data for Base

Type	Qty.	Part No.
Base element, direct earthing	1	8924710000
Base element, indirect earthing via spark gap (FG, floating ground)	1	8924270000

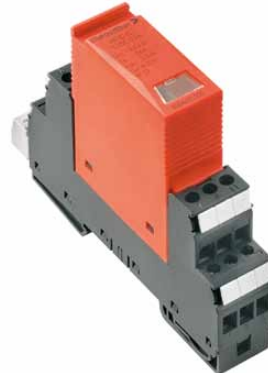
Note: The basis elements are to be ordered separately

VARITECTOR SPC

VSPC RS485

For serial data transmission

- Optional monitoring function with status indicator and alert function
- Pluggable arrester (plug-in / disconnect interruption-free and impedance neutral)
- Low residual voltage
- Protection for conducted serial data transmission – RS485
- Testable with V-TEST instrument
- Integrated PE contact in base element, safely discharges up to 20 kA (8/20 μ s) and 2.5 kA (10/350 μ s) to PE



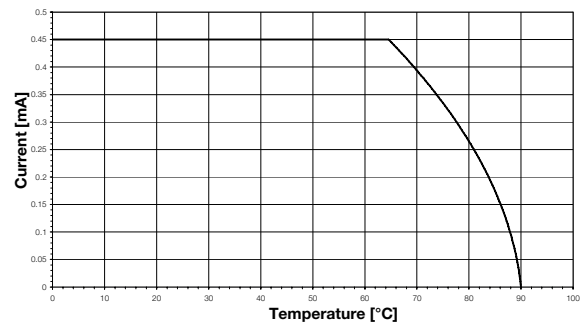
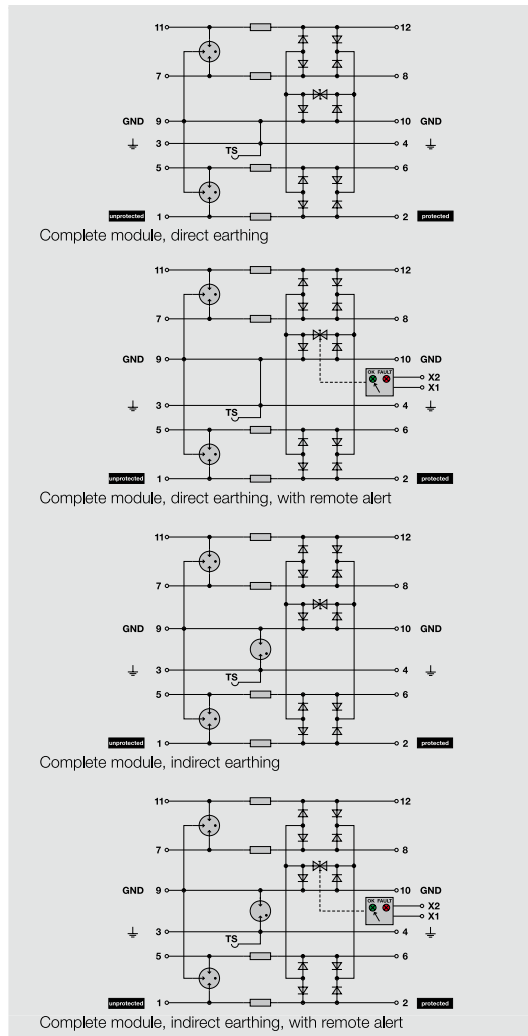
Technical Data

for all VSPC RS485

Dielectric strength with FG against PE	> 500 V
Rated current	450 mA
Volume resistivity per path	2.2 Ω
Overstressed fault mode	Mode 2
Requirement category acc. to IEC 61643-21	C1; C2; C3; D1
Surge strength C1	< 1 kA / 8/20 μ s
Surge strength C2	5 kA / 8/20 μ s
Surge strength C3	100 A / 10/1000 μ s
Surge strength D1	2.5 kA 10/350 μ s
Rated discharge current I_n (8/20 μ s) wire-wire / wire-PE / GND-PE	2.5 kA / 2.5 kA / 2.5 kA
Rated discharge current I_{max} (8/20 μ s) wire-wire / wire-PE / GND-PE	10 kA / 2 x 10 kA / 10 kA
Lightning test current, I_{imp} . (10/350 μ s) wire-wire / wire-PE / GND-PE	0.2 kA / 2 x 0.2 kA / 0.2 kA
Type of connection	Pluggable in VSPC BASE
Storage temperature	-40 °C...+80 °C
Ambient temperature (operational)	-40 °C...+70 °C
Rel. humidity	5 %...96 % RH
Degree of protection	IP20

Approvals

UL Listed (USL). Assessed to UL497B. File ref. E 311081



Dimensions of complete module (arrester + base element) Without telecomm. contact With telecomm. contact (R)

Length x width x height 90 x 17.8 x 69 mm 98 x 17.8 x 69 mm

Note

Base elements / base to arresters



Ordering Data for Base

Type	Qty.	Part No.
Base element, direct earthing	1	8924710000
Base element, indirect earthing via spark gap (FG, floating ground)	1	8924270000
Base element, direct earthing with remote alert	1	8951790000
Base element, indirect earthing with remote alert	1	8951800000

Note: The basis elements are to be ordered separately

VARITECTOR SPC

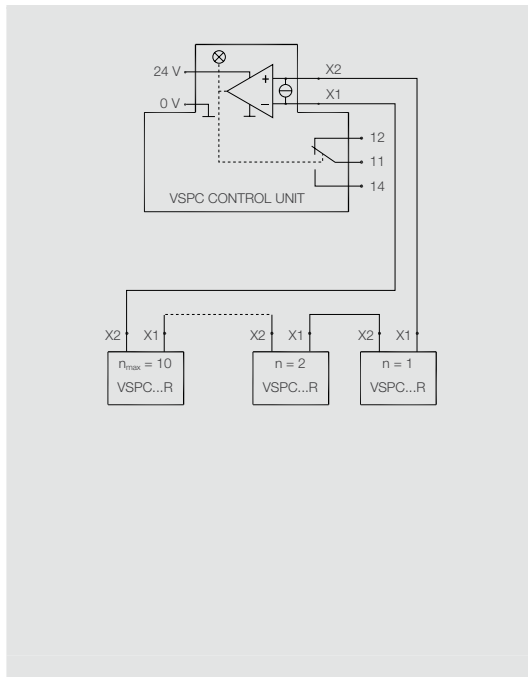
VSPC CONTROL UNIT 24 V DC

- For monitoring up to 10 protective modules
- Signaling module for all VSPCs with status indicator
- Signaling of cable breaks / signal interruptions
- Voltage supply from 18...31 V DC
- Potential-free changeover contact
- Function indicator (red/green LED)

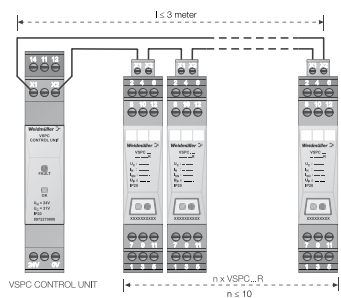


Technical Data

Input	
Rated voltage (DC)	18 V...24 V DC...31 V DC
Rated current	max. 50 mA
Power rating	1.5 W
Output	
Current loop	8 mA bei < 51 V
Monitoring option	1...10 VSPC modules
Signal output	
Type	1 CO contact
Max. switching voltage / continuous current	250 V / 1 A
Diagnostics	
Operating status	Green LED
Defect at current loop	Red LED (control unit and defective module)
Wire breakage	Red/green LED, flashing
General data	
Terminal rail	TS35
Design, Protection class	Insta-enclosure, IP20
Type of connection	BL / SL
Storage temperature	-40 °C...+80 °C
Ambient temperature (operational)	-40 °C...+70 °C
Rel. humidity	5 %...96 % RH
Start-up time after fault correction	60 s
Approvals	
UL Listed (USL). Assessed to UL497B. File ref. E 311081	
Dimensions	
Dimensions incl. enclosure L x W x H	102 x 18 x 71.5 mm
Note	



Applikation



Status indication

LED green	LED red	Function
		OK
		FAULT (one/several defect VSPC...R)
		Wire break in monitoring current loop

Ordering Data

Type	VSPC CONTROL UNIT 24Vdc
Part No.	8972270000
Qty.	1 piece
Note	

VSPC CONTROL UNIT 24 V DC

Type	VSPC CONTROL UNIT 24Vdc
Part No.	8972270000
Qty.	1 piece
Note	

VSPC Accessories

V-Test

- Instrument for testing the protective functions of series: PU I, PU II and VSPC
- Device for realizing standard IEC 62305 (periodic testing)
- Handy device with integrated battery set for local measurements
- Result display via LCD display
- Bilingual menu
- Including protective bag and power supply
- Intuitive user navigation in German and English

The V-Test is a compact, portable instrument for the Varitector SPC pluggable surge protection (VSPC series) and surge protection for power distribution, PUI and II series. With this instrument, the Weidmüller surge protection can be tested for protective function in accordance with the required test periods as stipulated by IEC62305 (DIN VDE 185 Part 3). In a backlit display, the measurement result is indicated with "ok" or "not ok" for each component.



Technical Data

Rated voltage	100...240 V AC
Accumulator set	8 NiMH with 2600 mA
Storage temperature	0 °C ... 40 °C
Ambient temperature (operational)	0 °C ... 40 °C
Degree of protection	IP20
Measuring range	U < 1000 V / I = 1 mA
UL94 flammability class	V0

General tolerances of measurement range

Gas discharge tube	+/- 10%
Varistor	+/- 5%
TVS-diode	+/- 5%

Note

Ordering Data

Dimensions	
Length x width x height	
Ordering data	
	Type
Part No.	8951860000
	Qty.

Note

V-Test

230 x 122 x 65 mm	
V-Test	
8951860000	
1	

VSPC Accessories

V-Ground

- Can be applied to unassigned wires
- Usable during start-up and maintenance
- Earthing of all sensor cables
- Can be plugged into standard base sockets

V-Test-Connector

- Usable during start-up and maintenance
- For circuit voltage measurements using a standard 2.3-mm test socket
- Can be plugged into standard base sockets



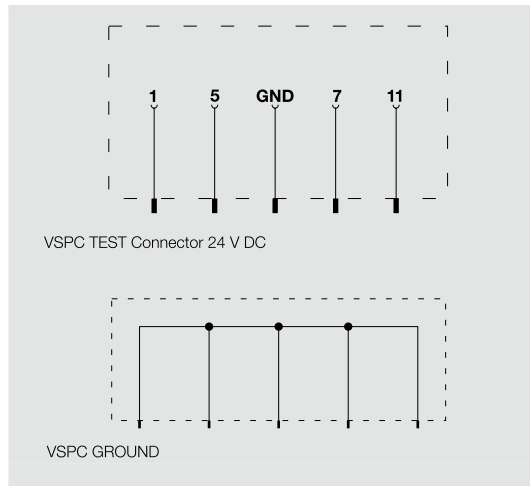
Technical Data

Rated voltage (DC)	230 V AC
Max. continuous voltage, U _c (DC)	255 V AC
Rated current	< 0.5 A
Volume resistivity per path	< 0.2 Ω
Type of connection	Pluggable in VSPC BASE
Storage temperature	-40 °C...+80 °C
Ambient temperature (operational)	-40 °C...+70 °C
Rel. humidity	5 %...96 % RH
Degree of protection	IP20

Approvals

UL Listed (USL). Assessed to UL497B. File ref. E 311081

Note



Ordering Data

Arrester / plug-in elements	Type
	Part No.
	Qty.
Note	

VSPC TEST Connector 24 DC

VSPC TEST Connector 24DC
8924690000
1

VSPC GROUND

VSPC GROUND
8924680000
1



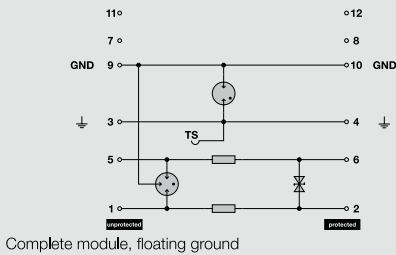
Ordering Data

Shield connection:	
Complete set - cable ties and shield connection	
Cable ties	
Shield connection	
Cable tie tool	

Type	Qty.	Part No.
EMC set	1	1067470000
EMC tie	100	1067490000
EMC connector	50	1067520000
Cable tie tool RT-1	1	1296000000

VSPC 1CL EX – Protection for an analog signal in intrinsically safe circuits

- Pluggable arrester (impedance neutral plugging/unplugging without interruption)
- Can be tested with the V-TEST testing device
- Space-saving design for 1 analog signal
- Version with floating ground PE connection used to avoid differences in voltage potential
- Can be used in compliance with the IEC 62305 installation standard
- Integrated PE contact in base element, safely discharges up to 20 kA (8/20 μ s) and 2.5 kA (10/350 μ s) to PE
- Can be used in zone 2, 1 and 0
- Certified for IEC 61643-21:08 D1, C1, C2, C3



ATEX Approval:
 Ⓢ II 1 G EX ia IIC T4...T6 Ga
 Ⓢ II 1 D Ex ia IIC T135°C...T85°C Da
 EU-type examination certificate No.: KEMA 10ATEX0148 X

Technical Data Arresters / Plugs

General data	
Dielectric strength at FG against PE	> 500 V
Volume resistivity	2.2 Ω
Overstressed fault mode	Mode 2
Requirement category acc. to IEC 61643-21	C1; C2; C3; D1
Surge strength C1	< 1 kA / 8/20 μ s
Surge strength C2	5 kA / 8/20 μ s
Surge strength C3	100 A / 10/1000 μ s
Surge strength D1	2.5 kA 10/350 μ s
Rated discharge current I_n (8/20 μ s) wire-wire / wire-PE / GND-PE	2.5 kA / 2.5 kA / 2.5 kA
Rated discharge current I_{max} (8/20 μ s) wire-wire / wire-PE / GND-PE	10 kA / 10 kA / 10 kA
Lightning test current, I_{imp} (10/350 μ s) wire-wire / wire-PE / GND-PE	2.5 kA / 2.5 kA / 2.5 kA
Connection	Pluggable in VSPC BASE
Storage temperature	-40 °C...+80 °C
Ambient temperature (operational)	-40 °C...+70 °C
Rel. humidity	5 %...96 % RH
Degree of protection	IP20
Flammability class	V0
EX protection data	
Inner capacitance, max. C_i	< 4 nF
Inner inductance, max. L_i	0 μ H
Temperature class T6/85 °C (-40 °C...+60 °C) li	250 mA
Temperature class T5/100 °C (-40 °C...+75 °C) li	250 mA
Temperature class T4/135 °C (-40 °C...+85 °C) li	350 mA
Input power, max. P_i	3 W
Failure probability	
λ_{ges}	45
MTTF	2537 years

Note

VSPC 1CL EX

Arresters / plugs

Bases and arresters should be ordered separately



Arrester / plug



Base / socket

Arrester / Plug

Technical data	
Rated voltage (DC)	5 V DC
Max. continuous voltage U_c (DC)	6,4 V DC
Input voltage, max. U_i	6 V
Signal transmission properties (-3 dB)	730 KHz
Pulse reset capacity	20 ms
Residual voltage U_r wire-wire / wire-PE / GND-PE	< 650 V 12 V / 450 V / 650 V
Protection level on output side sym.	
Input 1 kV/ μ s, typ.	< 12 V
Input 8/20 μ s, typ.	< 12 V
Protection level on output side unsym.	
Input 1 kV/ μ s, typ.	< 450 V
Input 8/20 μ s, typ.	< 650 V
Standards	IEC61643-21, IEC 62305, EN 60079-0:2009, EN 60079-11:2007, EN 60079-26:2007, EN 61241-11:2006
Note	
Ordering Data	
Arrester / plug	
Type	VSPC 1CL 5VDC ATEX
Part No.	8953660000
Qty.	1
Note	

VSPC 1CL 5 V DC EX

Rated voltage (DC)	5 V DC
Max. continuous voltage U_c (DC)	6,4 V DC
Input voltage, max. U_i	6 V
Signal transmission properties (-3 dB)	730 KHz
Pulse reset capacity	20 ms
Residual voltage U_r wire-wire / wire-PE / GND-PE	< 650 V 12 V / 450 V / 650 V
Protection level on output side sym.	
Input 1 kV/ μ s, typ.	< 12 V
Input 8/20 μ s, typ.	< 12 V
Protection level on output side unsym.	
Input 1 kV/ μ s, typ.	< 450 V
Input 8/20 μ s, typ.	< 650 V
Standards	IEC61643-21, IEC 62305, EN 60079-0:2009, EN 60079-11:2007, EN 60079-26:2007, EN 61241-11:2006
Note	
Ordering Data	
Arrester / plug	
Type	VSPC 1CL 5VDC ATEX
Part No.	8953660000
Qty.	1
Note	

VSPC 1CL 12 V DC EX

Rated voltage (DC)	12 V DC
Max. continuous voltage U_c (DC)	15 V DC
Input voltage, max. U_i	14 V
Signal transmission properties (-3 dB)	730 KHz
Pulse reset capacity	20 ms
Residual voltage U_r wire-wire / wire-PE / GND-PE	< 650 V 25 V / 450 V / 650 V
Protection level on output side sym.	
Input 1 kV/ μ s, typ.	< 25 V
Input 8/20 μ s, typ.	< 25 V
Protection level on output side unsym.	
Input 1 kV/ μ s, typ.	< 450 V
Input 8/20 μ s, typ.	< 650 V
Standards	IEC61643-21, IEC 62305, EN 60079-0:2009, EN 60079-11:2007, EN 60079-26:2007, EN 61241-11:2006
Note	
Ordering Data	
Arrester / plug	
Type	VSPC 1CL 12VDC ATEX
Part No.	8953590000
Qty.	1
Note	

VSPC 1CL 24 V DC EX

Rated voltage (DC)	24 V DC
Max. continuous voltage U_c (DC)	28 V DC
Input voltage, max. U_i	26 V
Signal transmission properties (-3 dB)	730 KHz
Pulse reset capacity	30 ms
Residual voltage U_r wire-wire / wire-PE / GND-PE	< 650 V 45 V / 450 V / 650 V
Protection level on output side sym.	
Input 1 kV/ μ s, typ.	< 45 V
Input 8/20 μ s, typ.	< 45 V
Protection level on output side unsym.	
Input 1 kV/ μ s, typ.	< 450 V
Input 8/20 μ s, typ.	< 650 V
Standards	IEC61643-21, IEC 62305, EN 60079-0:2009, EN 60079-11:2007, EN 60079-26:2007, EN 61241-11:2006
Note	
Ordering Data	
Arrester / plug	
Type	VSPC 1CL 24VDC ATEX
Part No.	8953600000
Qty.	1
Note	

Base / Socket

Technical data	
Clamping range,	
Rated connection, min./max.	0.5 mm ² / 4 mm ²
Conductor cross section,	
flexible, min./max.	0.5 mm ² / 2.5 mm ²
solid, min./max.	0.5 mm ² / 4 mm ²
stranded, min./max.	0.5 mm ² / 2.5 mm ²
Stripping length	7 mm
Tightening torque	0.5...0.8 Nm
Note	
Ordering Data	
Base / socket	
Indirect earthing via gas discharged tube FG, floating ground	Type
Part No.	VSPC BASE 1CL FG EX
Qty.	8951810000
	1
Size of complete module (arrester + base)	
Length x width x height	90 x 17.8 x 69 mm
Note:	Accessories: Screwdrivers SD 0.6x3.5x200 Part No.: 9010110000

VSPC BASE 1CL FG EX

Clamping range,	
Rated connection, min./max.	0.5 mm ² / 4 mm ²
Conductor cross section,	
flexible, min./max.	0.5 mm ² / 2.5 mm ²
solid, min./max.	0.5 mm ² / 4 mm ²
stranded, min./max.	0.5 mm ² / 2.5 mm ²
Stripping length	7 mm
Tightening torque	0.5...0.8 Nm
Note	
Ordering Data	
Base / socket	
Indirect earthing via gas discharged tube FG, floating ground	Type
Part No.	VSPC BASE 1CL FG EX
Qty.	8951810000
	1
Size of complete module (arrester + base)	
Length x width x height	90 x 17.8 x 69 mm
Note:	Accessories: Screwdrivers SD 0.6x3.5x200 Part No.: 9010110000

VSPC BASE 1CL FG EX

Clamping range,	
Rated connection, min./max.	0.5 mm ² / 4 mm ²
Conductor cross section,	
flexible, min./max.	0.5 mm ² / 2.5 mm ²
solid, min./max.	0.5 mm ² / 4 mm ²
stranded, min./max.	0.5 mm ² / 2.5 mm ²
Stripping length	7 mm
Tightening torque	0.5...0.8 Nm
Note	
Ordering Data	
Base / socket	
Indirect earthing via gas discharged tube FG, floating ground	Type
Part No.	VSPC BASE 1CL FG EX
Qty.	8951810000
	1
Size of complete module (arrester + base)	
Length x width x height	90 x 17.8 x 69 mm
Note:	Accessories: Screwdrivers SD 0.6x3.5x200 Part No.: 9010110000

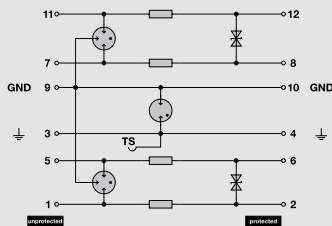
VSPC BASE 1CL FG EX

Clamping range,	
Rated connection, min./max.	0.5 mm ² / 4 mm ²
Conductor cross section,	
flexible, min./max.	0.5 mm ² / 2.5 mm ²
solid, min./max.	0.5 mm ² / 4 mm ²
stranded, min./max.	0.5 mm ² / 2.5 mm ²
Stripping length	7 mm
Tightening torque	0.5...0.8 Nm
Note	
Ordering Data	
Base / socket	
Indirect earthing via gas discharged tube FG, floating ground	Type
Part No.	VSPC BASE 1CL FG EX
Qty.	8951810000
	1
Size of complete module (arrester + base)	
Length x width x height	90 x 17.8 x 69 mm
Note:	Accessories: Screwdrivers SD 0.6x3.5x200 Part No.: 9010110000

VARITECTOR SPC

VSPC 2CL EX – Protection for an analog signal in intrinsically safe circuits

- Pluggable arrester (impedance-neutral plugging/unplugging without interruption)
- Can be tested with the V-TEST testing device
- Space-saving design for 2 analog signals
- Version with floating ground PE connection used to avoid differences in voltage potential
- Can be used in compliance with the IEC 62305 installation standard
- Integrated PE contact in base element, safely discharges up to 20 kA (8/20 μ s) and 2.5 kA (10/350 μ s) to PE
- Can be used in zone 2, 1 and 0
- Certified for IEC 61643-21:08 D1, C1, C2, C3



Complete module, floating ground

ATEX Approval:

Ⓜ II 1 G EX ia IIC T4...T6 Ga

Ⓜ II 1 D Ex ia IIC T135°C...T85°C Da

EU-type examination certificate No.: KEMA 10ATEX0148 X

Technical Data Arresters / Plugs

General data

Dielectric strength at FG against PE	> 500 V
Volume resistivity	2.2 Ω
Overstressed fault mode	Mode 2
Requirement category acc. to IEC 61643-21	C1; C2; C3; D1
Surge strength C1	< 1 kA / 8/20 μ s
Surge strength C2	5 kA / 8/20 μ s
Surge strength C3	100 A / 10/1000 μ s
Surge strength D1	2.5 kA 10/350 μ s
Rated discharge current I_n (8/20 μ s) wire-wire / wire-PE / GND-PE	2.5 kA / 2.5 kA / 2.5 kA
Rated discharge current I_{max} (8/20 μ s) wire-wire / wire-PE / GND-PE	10 kA / 2 x 10 kA / 10 kA
Lightning test current, I_{imp} (10/350 μ s) wire-wire / wire-PE / GND-PE	2.5 kA / 2.5 kA / 2.5 kA
Connection	Pluggable in VSPC BASE
Storage temperature	-40 °C...+80 °C
Ambient temperature (operational)	-40 °C...+70 °C
Rel. humidity	5 %...96 % RH
Degree of protection	IP20
Flammability class	V0

EX protection data

Inner capacitance, max. C_i	< 4 nF
Inner inductance, max. L_i	0 μ H
Temperature class T6/85 °C (-40 °C...+60 °C) li	250 mA
Temperature class T5/100 °C (-40 °C...+75 °C) li	250 mA
Temperature class T4/135 °C (-40 °C...+85 °C) li	350 mA
Input power, max. P_i	3 W

Failure probability

λ_{ges}	45
MTTF	2537 years

Note

VSPC 2CL EX

Arresters / plugs

Bases and arresters should be ordered separately



Arrester / plug



Base / socket

Arrester / Plug

Technical data	
Rated voltage (DC)	24 V DC
Max. continuous voltage U_c (DC)	28 V DC
Input voltage, max. U_i	26 V
Signal transmission properties (-3 dB)	2.2 MHz
Pulse reset capacity	30 ms
Residual voltage U_r	< 800 V
wire-wire / wire-PE / GND-PE	45 V / 450 V / 800 V
Protection level on output side sym.	
Input 1 kV/ μ s, typ.	< 45 V
Input 8/20 μ s, typ.	< 45 V
Protection level on output side unsym.,	
Input 1 kV/ μ s, typ.	< 450 V
Input 8/20 μ s, typ.	< 800 V
Standards	IEC61643-21, IEC 62305, EN 60079-0:2009, EN 60079-11:2007, EN 60079-26:2007, EN 61241-11:2009

Note

Ordering Data

Arrester / plug	
Type	VSPC 2CL 24VDC ATEX
Part No.	8953720000
Qty.	1
Note	

VSPC 2CL 24 V DC EX

Rated voltage (DC)	24 V DC
Max. continuous voltage U_c (DC)	28 V DC
Input voltage, max. U_i	26 V
Signal transmission properties (-3 dB)	2.2 MHz
Pulse reset capacity	30 ms
Residual voltage U_r	< 800 V
wire-wire / wire-PE / GND-PE	45 V / 450 V / 800 V
Protection level on output side sym.	
Input 1 kV/ μ s, typ.	< 45 V
Input 8/20 μ s, typ.	< 45 V
Protection level on output side unsym.,	
Input 1 kV/ μ s, typ.	< 450 V
Input 8/20 μ s, typ.	< 800 V
Standards	IEC61643-21, IEC 62305, EN 60079-0:2009, EN 60079-11:2007, EN 60079-26:2007, EN 61241-11:2009

Base / Socket

Technical data	
Clamping range,	
Rated connection, min./max.	0.5 mm ² / 4 mm ²
Conductor cross section,	
flexible, min./max.	0.5 mm ² / 2.5 mm ²
solid, min./max.	0.5 mm ² / 4 mm ²
stranded, min./max.	0.5 mm ² / 2.5 mm ²
Stripping length	7 mm
Tightening torque	0.5...0.8 Nm

Note

Ordering Data

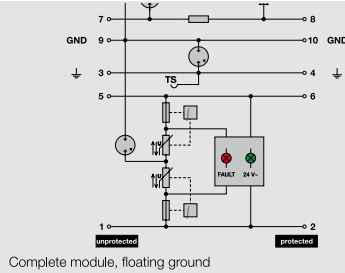
Base / socket	
Indirect earthing via gas discharged tube FG, floating ground	Type VSPC BASE 2CL FG EX
Part No.	8951820000
Qty.	1
Size of complete module (arrester + base)	
Length x width x height	90 x 17.8 x 69 mm
Note:	Accessories: Screwdrivers SD 0.6x3.5x200 Part No.: 9010110000

VSPC BASE 2CL FG EX

Clamping range,	
Rated connection, min./max.	0.5 mm ² / 4 mm ²
Conductor cross section,	
flexible, min./max.	0.5 mm ² / 2.5 mm ²
solid, min./max.	0.5 mm ² / 4 mm ²
stranded, min./max.	0.5 mm ² / 2.5 mm ²
Stripping length	7 mm
Tightening torque	0.5...0.8 Nm
Note	
Ordering Data	
Indirect earthing via gas discharged tube FG, floating ground	Type VSPC BASE 2CL FG EX
Part No.	8951820000
Qty.	1
Size of complete module (arrester + base)	
Length x width x height	90 x 17.8 x 69 mm
Note:	Accessories: Screwdrivers SD 0.6x3.5x200 Part No.: 9010110000

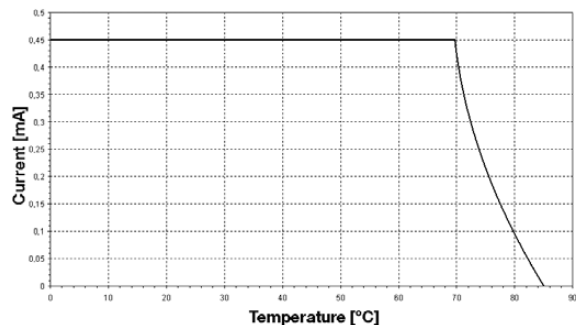
VSPC 1CL PW EX – Combinations of current-loop signal and device protection in intrinsically safe circuits

- Pluggable arrester (impedance neutral plugging/unplugging without interruption)
- Can be used to comply with the IEC 62305 installation standard
- Integrated PE contact in base element, safely discharges up to 20 kA (8/20 μs) and 2.5 kA (10/350 μs) to PE
- Can be used in zone 2, 1 and 0
- Certified for IEC 61643-21:08 D1, C1, C2, C3
- Certified for IEC 61643-11:09 class III



Technical Data Arresters / Plugs

Protection for the current loop	
Rated voltage (DC)	24 V AC / 34 V DC
Max. continuous voltage U_c (DC)	27 V AC / 38 V DC
Dielectric strength at FG against PE	> 500 V
Volume resistivity	2.2 Ω
Overstressed fault mode	Mode 2
Requirement category acc. to IEC 61643-21	C1; C2; C3; D1
Rated voltage (AC/DC)	24 V AC / 33 V DC
Surge strength C1	< 1 kA / 8/20 μs
Surge strength C2	5 kA / 8/20 μs
Surge strength C3	100 A / 10/1000 μs
Surge strength D1	2.5 kA 10/350 μs
Signal transmission properties (-3 dB)	730 KHz
Pulse reset capacity	10 ms
Rated discharge current I_n (8/20 μs) wire-wire / wire-PE / GND-PE	2.5 kA / 2.5 kA / 2.5 kA
Rated discharge current I_{max} (8/20 μs) wire-wire / wire-PE / GND-PE	10 kA / 10 kA / 10 kA
Lightning test current, I_{imp} (10/350 μs) wire-wire / wire-PE / GND-PE	2.5 kA / 2.5 kA / 2.5 kA
Residual voltage U_p	800 V
Residual voltage U_p wire-wire / wire-PE / GND-PE	60 V / 450 V / 800 V
Protection level on output side sym., input 1 kV/μs, typ.	< 60 V
Protection level on output side sym., input 8/20 μs, typ.	< 60 V
Protection level on output side unsym., input 1 kV/μs, typ.	< 450 V
Protection level on output side unsym., input 8/20 μs, typ.	< 800 V
Standards	IEC 61643-21, IEC 61643-1, IEC 62305, EN 60079-0:2009, EN 60079-11:2007, EN 60079-26:2007, EN 61241-11:2009
Protection for Energy line III	
Rated voltage (DC)	24 V AC / 34 V DC
Max. continuous voltage U_c (AC) / (DC)	27 V AC / 38 V DC
Combined pulse	6 kV
Residual voltage U_s	900 V
Nominal current	0.35 A



Note

ATEX Approval:

Ⓜ II 1 G EX ia IIC T4...T6 Ga

Ⓜ II 1 D Ex ia IIC T135°C...T85°C Da

EU-type examination certificate No.: KEMA 10ATEX0148 X

VSPC 1CL PW EX

Arresters / plugs

Bases and arresters should be ordered separately



Arrester / plug



Base / socket

Arrester / Plug

Technical data

Type of connection
Ambient temperature (operational)
Storage temperature
Requirement category acc. to IEC 61643-1
Rel. humidity

EX protection data

Degree of protection
Flammability class
Inner capacitance, max. Ci
Inner inductance, max. Li
Temperature class T6/85°C (-40°C...+60°C) II
Temperature class T5/100°C (-40°C...+75°C) II
Temperature class T4/135°C (-40°C...+85°C) II
Input power, max. Pi
Input voltage, max. Ui

Failure probability

λ_{ges}
MTTF

Note

VSPC 1CL PW 24 V EX

Pluggable in VSPC BASE

-40 °C...+70 °C
-40 °C...+80 °C
Class III
5 %...96 % RH

IP20

V0

< 4 nF

0 µH

250 mA

250 mA

350 mA

3 W

20 V

45

2537 years

Ordering Data

Arrester / plug

Type
Part No.
Qty.

Note

VSPC 1CL PW 24V 0,5A

8951510000

1

Base / Socket

Technical data

Clamping range,
Rated connection, min./max.
Conductor cross section,
flexible, min./max.
solid, min./max.
stranded, min./max.
Stripping length
Tightening torque

Note

VSPC BASE 1CL PW FG EX

0.5 mm² / 4 mm²

0.5 mm² / 2.5 mm²

0.5 mm² / 4 mm²

0.5 mm² / 2.5 mm²

7 mm

0.5...0.8 Nm

Ordering Data

Base / socket

Indirect earthing via gas discharged tube FG, floating ground
Type
Part No.
Qty.

Size of complete module (arrester + base)

Length x width x height

Note:

VSPC BASE 1CL PW FG EX

1070470000

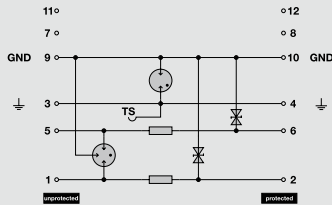
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90 x 17.8 x 69 mm

Accessories: Screwdrivers
SD 0.6x3.5x200 Part No.: **9010110000**

VSPC 2SL EX – Protection for two binary signals in intrinsically safe circuits

- Pluggable arrester (impedance neutral plugging/unplugging without interruption)
- Can be tested with the V-TEST testing device
- Space saving design for 2 binary signals
- Version with floating ground PE connection used to avoid differences in voltage potential
- Can be used to comply with the IEC 62305 installation standard
- Integrated PE contact in base element, safely discharges up to 20 kA (8/20 μ s) and 2.5 kA (10/350 μ s) to PE
- Can be used in zone 2, 1 and 0
- Certified for IEC 61643-21:08 D1, C1, C2, C3



Complete module, floating ground

ATEX Approval:

II 1 G EX ia IIC T4...T6 Ga

II 1 D Ex ia IIC T135°C...T85°C Da

EU-type examination certificate No.: KEMA 10ATEX0148 X

Technical Data Arresters / Plugs

General data

Dielectric strength at FG against PE	> 500 V
Volume resistivity	4.7 Ω
Overstressed fault mode	Mode 2
Requirement category acc. to IEC 61643-21	C1; C2; C3; D1
Surge strength C1	< 1 kA / 8/20 μ s
Surge strength C2	5 kA / 8/20 μ s
Surge strength C3	100 A / 10/1000 μ s
Surge strength D1	2.5 kA 10/350 μ s
Rated discharge current I_n (8/20 μ s) wire-wire / wire-PE / GND-PE	2.5 kA / 2.5 kA / 2.5 kA
Rated discharge current I_{max} (8/20 μ s) wire-wire / wire-PE / GND-PE	10 kA / 10 kA / 10kA
Lightning test current, I_{imp} (10/350 μ s) wire-wire / wire-PE / GND-PE	2.5 kA / 2.5 kA / 2.5 kA
Type of connection	Pluggable in VSPC BASE
Storage temperature	-40 °C...+80 °C
Ambient temperature (operational)	-40 °C...+70 °C
Rel. humidity	5 %...96 % RH
Degree of protection	IP20
Flammability class	V0

EX protection data

Inner capacitance, max. C_i	< 4 nF
Inner inductance, max. L_i	0 μ H
Temperature class T6/85 °C (-40 °C...+60 °C) Ii	250 mA
Temperature class T5/100 °C (-40 °C...+75 °C) II	250 mA
Input power, max. P_i	3 W

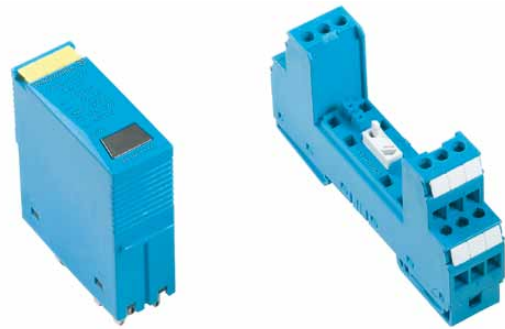
Failure probability

λ_{ges}	43
MTTF	2655 years

Note

VSPC 2SL EX
Arresters / plugs

Bases and arresters should be ordered separately



Arrester / plug

Base / socket

Arrester / Plug

Technical data	
Rated voltage U_n	
Max. continuous voltage U_c (AC) / (DC)	
Input voltage, max. U_i	
Temperature class T4/135°C (-40°C...+85°C) II	
Signal transmission properties (-3 dB)	
Pulse reset capacity	
Standards	
Residual voltage U_r wire-wire / wire-PE / GND-PE	
Protection level on output side sym. Input 1 kV/ μ s, typ. Input 8/20 μ s, typ.	
Protection level on output side unsym., Input 1 kV/ μ s, typ. Input 8/20 μ s, typ.	
Nominal current	
Note	

VSPC 2SL 12 V DC EX

Rated voltage U_n	12 V DC
Max. continuous voltage U_c (AC) / (DC)	15 V DC
Input voltage, max. U_i	14 V
Temperature class T4/135°C (-40°C...+85°C) II	300 mA
Signal transmission properties (-3 dB)	750 KHz
Pulse reset capacity	20 ms
Standards	IEC 61643-21, IEC 62305, EN 60079-0:2009, EN 60079-11:2007, EN 60079-26:2007, EN 61241-11:2009
Residual voltage U_r wire-wire / wire-PE / GND-PE	< 50 V 45 V / 50 V / 50 V
Protection level on output side sym. Input 1 kV/ μ s, typ. Input 8/20 μ s, typ.	< 45 V < 45 V
Protection level on output side unsym., Input 1 kV/ μ s, typ. Input 8/20 μ s, typ.	< 25 V < 50 V
Nominal current	300 mA
Note	

VSPC 2SL 12 V AC EX

Rated voltage U_n	12 V AC / 16 V DC
Max. continuous voltage U_c (AC) / (DC)	13.2 V AC / 18 V DC
Input voltage, max. U_i	19 V
Temperature class T4/135°C (-40°C...+85°C) II	300 mA
Signal transmission properties (-3 dB)	750 KHz
Pulse reset capacity	20 ms
Standards	IEC 61643-21, IEC 62305, EN 60079-0:2009, EN 60079-11:2007, EN 60079-26:2007, EN 61241-11:2009
Residual voltage U_r wire-wire / wire-PE / GND-PE	< 50 V 55 V / 50 V / 50 V
Protection level on output side sym. Input 1 kV/ μ s, typ. Input 8/20 μ s, typ.	< 55 V < 55 V
Protection level on output side unsym., Input 1 kV/ μ s, typ. Input 8/20 μ s, typ.	< 30 V < 50 V
Nominal current	300 mA
Note	

VSPC 2SL 24 V DC EX

Rated voltage U_n	24 V DC
Max. continuous voltage U_c (AC) / (DC)	28 V DC
Input voltage, max. U_i	26 V
Temperature class T4/135°C (-40°C...+85°C) II	300 mA
Signal transmission properties (-3 dB)	750 KHz
Pulse reset capacity	30 ms
Standards	IEC 61643-21, IEC 62305, EN 60079-0:2009, EN 60079-11:2007, EN 60079-26:2007, EN 61241-11:2009
Residual voltage U_r wire-wire / wire-PE / GND-PE	< 60 V 80 V / 60 V / 60 V
Protection level on output side sym. Input 1 kV/ μ s, typ. Input 8/20 μ s, typ.	< 80 V < 80 V
Protection level on output side unsym., Input 1 kV/ μ s, typ. Input 8/20 μ s, typ.	< 40 V < 60 V
Nominal current	300 mA
Note	

VSPC 2SL 48 V AC EX

Rated voltage U_n	48 V AC / 68 V DC
Max. continuous voltage U_c (AC) / (DC)	60 V AC / 85 V DC
Input voltage, max. U_i	75 V
Temperature class T4/135°C (-40°C...+85°C) II	250 mA
Signal transmission properties (-3 dB)	750 KHz
Pulse reset capacity	60 ms
Standards	IEC 61643-21, IEC 62305, EN 60079-0:2009, EN 60079-11:2007, EN 60079-26:2007, EN 61241-11:2009
Residual voltage U_r wire-wire / wire-PE / GND-PE	< 125 V 80 V / 125 V / 125 V
Protection level on output side sym. Input 1 kV/ μ s, typ. Input 8/20 μ s, typ.	< 210 V < 80 V
Protection level on output side unsym., Input 1 kV/ μ s, typ. Input 8/20 μ s, typ.	< 85 V < 125 V
Nominal current	250 mA
Note	

Ordering Data

Arrester / plug	
Type	Part No.
VSPC 2SL 12VDC 0.5A ATEX	8953620000
Qty.	1
Note	

VSPC 2SL 12VAC 0.5A ATEX	8953630000
Qty.	1
Note	

VSPC 2SL 24VDC 0.5A ATEX	8953670000
Qty.	1
Note	

VSPC 2SL 48VAC 0.5A ATEX	8953640000
Qty.	1
Note	

Base / Socket

Technical data	
Clamping range,	
Rated connection, min./max.	
Conductor cross section, flexible, min./max. solid, min./max. stranded, min./max.	
Stripping length	
Tightening torque	
Note	

VSPC BASE 2SL FG EX

Rated connection, min./max.	0.5 mm ² / 4 mm ²
Conductor cross section, flexible, min./max. solid, min./max. stranded, min./max.	0.5 mm ² / 2.5 mm ² 0.5 mm ² / 4 mm ² 0.5 mm ² / 2.5 mm ²
Stripping length	7 mm
Tightening torque	0.5...0.8 Nm
Note	

VSPC BASE 2SL FG EX

Rated connection, min./max.	0.5 mm ² / 4 mm ²
Conductor cross section, flexible, min./max. solid, min./max. stranded, min./max.	0.5 mm ² / 2.5 mm ² 0.5 mm ² / 4 mm ² 0.5 mm ² / 2.5 mm ²
Stripping length	7 mm
Tightening torque	0.5...0.8 Nm
Note	

VSPC BASE 2SL FG EX

Rated connection, min./max.	0.5 mm ² / 4 mm ²
Conductor cross section, flexible, min./max. solid, min./max. stranded, min./max.	0.5 mm ² / 2.5 mm ² 0.5 mm ² / 4 mm ² 0.5 mm ² / 2.5 mm ²
Stripping length	7 mm
Tightening torque	0.5...0.8 Nm
Note	

VSPC BASE 2SL FG EX

Rated connection, min./max.	0.5 mm ² / 4 mm ²
Conductor cross section, flexible, min./max. solid, min./max. stranded, min./max.	0.5 mm ² / 2.5 mm ² 0.5 mm ² / 4 mm ² 0.5 mm ² / 2.5 mm ²
Stripping length	7 mm
Tightening torque	0.5...0.8 Nm
Note	

Ordering Data

Base / socket	
Type	Part No.
VSPC BASE 2SL FG EX	8951830000
Qty.	1
Size of complete module (arrester + base)	
Length x width x height	90 x 17.8 x 69 mm
Note:	Accessories: Screwdrivers SD 0.6x3.5x200 Part No.: 9010110000

VSPC BASE 2SL FG EX	8951830000
Qty.	1
Size of complete module (arrester + base)	
Length x width x height	90 x 17.8 x 69 mm
Note:	Accessories: Screwdrivers SD 0.6x3.5x200 Part No.: 9010110000

VSPC BASE 2SL FG EX	8951830000
Qty.	1
Size of complete module (arrester + base)	
Length x width x height	90 x 17.8 x 69 mm
Note:	Accessories: Screwdrivers SD 0.6x3.5x200 Part No.: 9010110000

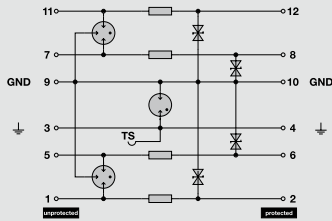
VSPC BASE 2SL FG EX	8951830000
Qty.	1
Size of complete module (arrester + base)	
Length x width x height	90 x 17.8 x 69 mm
Note:	Accessories: Screwdrivers SD 0.6x3.5x200 Part No.: 9010110000

VSPC BASE 2SL FG EX	8951830000
Qty.	1
Size of complete module (arrester + base)	
Length x width x height	90 x 17.8 x 69 mm
Note:	Accessories: Screwdrivers SD 0.6x3.5x200 Part No.: 9010110000

VARITECTOR SPC

VSPC 4SL EX – Protection for four binary signals in intrinsically safe circuits

- Pluggable arrester (impedance neutral plugging/unplugging without interruption)
- Can be tested with the V-TEST testing device
- Space saving design for 4 binary signals
- Version with floating ground PE connection used to avoid differences in voltage potential
- Can be used to comply with the IEC 62305 installation standard
- Integrated PE contact in base element, safely discharges up to 20 kA (8/20 μ s) and 2.5 kA (10/350 μ s) to PE
- Can be used in zone 2, 1 and 0
- Certified for IEC 61643-21:08 D1, C1, C2, C3



Complete module, floating ground

ATEX Approval:

Ⓜ II 1 G EX ia IIC T4...T6 Ga

Ⓜ II 1 D Ex ia IIC T135°C...T85°C Da

EU-type examination certificate No.: KEMA 10ATEX0148 X

Technical Data Arresters / Plugs

General data

Volume resistivity	4.7 Ω
Overstressed fault mode	Mode 2
Requirement category acc. to IEC 61643-21	C1; C2; C3; D1
Surge strength C1	< 1 kA / 8/20 μ s
Surge strength C2	5 kA / 8/20 μ s
Surge strength C3	100 A / 10/1000 μ s
Surge strength D1	2.5 kA 10/350 μ s
Rated discharge current I_n (8/20 μ s) wire-wire / wire-PE / GND-PE	2.5 kA / 2.5 kA / 2.5 kA
Rated discharge current I_{max} (8/20 μ s) wire-wire / wire-PE / GND-PE	10 kA / 10 kA / 10 kA
Lightning test current, I_{imp} (10/350 μ s) wire-wire / wire-PE / GND-PE	2.5 kA / 2.5 kA / 2.5 kA
Type of connection	Pluggable in VSPC BASE
Storage temperature	-40 °C ... +80 °C
Ambient temperature (operational)	-40 °C ... +70 °C
Rel. humidity	5 % ... 96 % RH
Degree of protection	IP20
Flammability class	V0

EX protection data

Inner capacitance, max. C_i	< 4 nF
Inner inductance, max. L_i	0 μ H
Temperature class T6/85 °C (-40 °C...+60 °C) li	250 mA
Temperature class T5/100 °C (-40 °C...+75 °C) li	250 mA
Temperature class T4/135 °C (-40 °C...+85 °C) li	300 mA
Input power, max. P_i	3 W

Failure probability

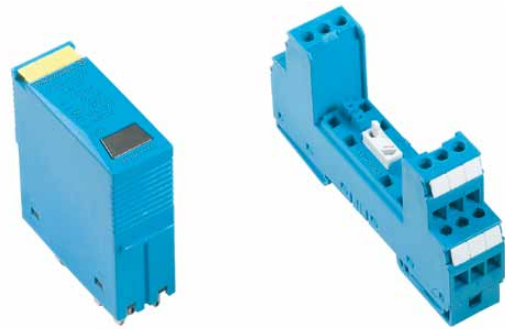
λ_{ges}	43
MTTF	2655 years

Note

VSPC 4SL EX

Arresters / plugs

Bases and arresters should be ordered separately



Arrester / plug

Base / socket

Arrester / Plug

Technical data	VSPC 4SL 12 V DC EX	VSPC 4SL 12 V AC EX	VSPC 4SL 24 V DC EX	VSPC 4SL 24 V AC EX
Rated voltage U_n	12 V DC	12 V AC / 16 V DC	24 V DC	24 V AC / 34 V DC
Max. continuous voltage U_c (AC) / (DC)	15 V DC	13.2 V AC / 18 V DC	28 V DC	28 V AC / 39 V DC
Input voltage, max. U_i	14 V	19 V	26 V	38 V
Signal transmission properties (-3 dB)	750 KHz	750 KHz	750 KHz	750 KHz
Pulse reset capacity	20 ms	20 ms	30 ms	40 ms
Residual voltage U_r	< 35 V	< 50 V	< 60 V	< 60 V
wire-wire / wire-PE / GND-PE	45 V / 20 V / 450 V	55 V / 50 V / 50 V	80 V / 60 V / 60 V	80 V / 60 V / 60 V
Protection level on output side sym.				
Input 1 kV/ μ s, typ.	< 45 V	< 55 V	< 80 V	< 110 V
Input 8/20 μ s, typ.	< 45 V	< 55 V	< 80 V	< 80 V
Protection level on output side unsym.				
Input 1 kV/ μ s, typ.	< 25 V	< 30 V	< 40 V	< 60 V
Input 8/20 μ s, typ.	< 50 V	< 50 V	< 60 V	< 60 V
Nominal current	300 mA	300 mA	300 mA	300 mA
Standards	IEC 61643-21, IEC 62305, EN 60079-0:2009, EN 60079-11:2007, EN 60079-26:2007, EN 61241-11:2009	IEC 61643-21, IEC 62305, EN 60079-0:2009, EN 60079-11:2007, EN 60079-26:2007, EN 61241-11:2009	IEC 61643-21, IEC 62305, EN 60079-0:2009, EN 60079-11:2007, EN 60079-26:2007, EN 61241-11:2009	IEC 61643-21, IEC 62305, EN 60079-0:2009, EN 60079-11:2007, EN 60079-26:2007, EN 61241-11:2009
Note				

Ordering Data

Arrester / plug	Type	VSPC 4SL 12VDC 0.5A ATEX	VSPC 4SL 12VAC 0.5A ATEX	VSPC 4SL 24VDC 0.5A ATEX	VSPC 4SL 24VAC 0.5A ATEX
	Part No.	1161170000	1161150000	1161190000	1161180000
	Qty.	1	1	1	1
Note					

Base / Socket

Technical data	VSPC BASE 4SL FG EX	VSPC BASE 4SL FG EX	VSPC BASE 4SL FG EX	VSPC BASE 4SL FG EX
Clamping range,				
Rated connection, min./max.	0.5 mm ² / 4 mm ²	0.5 mm ² / 4 mm ²	0.5 mm ² / 4 mm ²	0.5 mm ² / 4 mm ²
Conductor cross section,				
flexible, min./max.	0.5 mm ² / 2.5 mm ²	0.5 mm ² / 2.5 mm ²	0.5 mm ² / 2.5 mm ²	0.5 mm ² / 2.5 mm ²
solid, min./max.	0.5 mm ² / 4 mm ²	0.5 mm ² / 4 mm ²	0.5 mm ² / 4 mm ²	0.5 mm ² / 4 mm ²
stranded, min./max.	0.5 mm ² / 2.5 mm ²	0.5 mm ² / 2.5 mm ²	0.5 mm ² / 2.5 mm ²	0.5 mm ² / 2.5 mm ²
Stripping length	7 mm	7 mm	7 mm	7 mm
Tightening torque	0.5...0.8 Nm	0.5...0.8 Nm	0.5...0.8 Nm	0.5...0.8 Nm
Note				

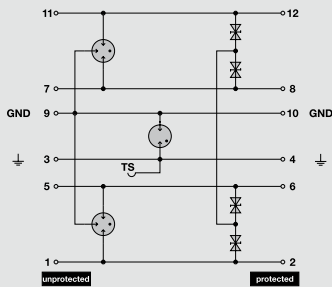
Ordering Data

Base / socket	Type	VSPC BASE 4SL FG EX	VSPC BASE 4SL FG EX	VSPC BASE 4SL FG EX	VSPC BASE 4SL FG EX
Indirect earthing via gas discharged tube FG, floating ground	Part No.	8951840000	8951840000	8951840000	8951840000
	Qty.	1	1	1	1
Size of complete module (arrester + base)					
Length x width x height		90 x 17.8 x 69 mm	90 x 17.8 x 69 mm	90 x 17.8 x 69 mm	90 x 17.8 x 69 mm
Note:		Accessories: Screwdrivers SD 0.6x3.5x200 Part No.: 9010110000	Accessories: Screwdrivers SD 0.6x3.5x200 Part No.: 9010110000	Accessories: Screwdrivers SD 0.6x3.5x200 Part No.: 9010110000	Accessories: Screwdrivers SD 0.6x3.5x200 Part No.: 9010110000

VARITECTOR SPC

VSPC 3/4 WIRE EX – 3/4 wire measurements in intrinsically safe circuits

- Pluggable arrester (impedance neutral plugging/unplugging without interruption)
- Protection for measuring bridge signals
- Can be tested with the V-TEST testing device
- Can be used to comply with the IEC 62305 installation standard
- Integrated PE contact in base element, safely discharges up to 20 kA (8/20 μ s) and 2.5 kA (10/350 μ s) to PE
- Can be used in zone 2, 1 and 0
- Certified for IEC 61643-21:08 D1, C1, C2, C3



Complete module, floating ground

ATEX Approval:

Ⓜ II 1 G EX ia IIC T4...T6 Ga

Ⓜ II 1 D Ex ia IIC T135°C...T85°C Da

EU-type examination certificate No.: KEMA 10ATEX0148 X

Technical Data Arresters / Plugs

General data	
Input voltage, max. U_i	6 V
Volume resistivity	0.2 Ω
Overstressed fault mode	Mode 2
Requirement category acc. to IEC 61643-21	C1; C2; C3; D1
Surge strength C1	< 1 kA / 8/20 μ s
Surge strength C2	5 kA / 8/20 μ s
Surge strength C3	100 A / 10/1000 μ s
Surge strength D1	2.5 kA 10/350 μ s
Rated discharge current I_n (8/20 μ s) wire-wire / wire-PE / GND-PE	2.5 kA / 2.5 kA / 2.5 kA
Rated discharge current I_{max} (8/20 μ s) wire-wire / wire-PE / GND-PE	10 kA / 10 kA / 10 kA
Lightning test current, I_{imp} (10/350 μ s) wire-wire / wire-PE / GND-PE	2.5 kA / 2.5 kA / 2.5 kA
Type of connection	Pluggable in VSPC BASE
Storage temperature	-40 °C...+80 °C
Ambient temperature (operational)	-40 °C...+70 °C
Rel. humidity	5 %...96 % RH
Degree of protection	IP20
Flammability class	V0
EX protection data	
Inner capacitance, max. C_i	< 4 nF
Inner inductance, max. L_i	0 μ H
Temperature class T6/85 °C (-40 °C...+60 °C) li	250 mA
Temperature class T5/100 °C (-40 °C...+75 °C) li	250 mA
Temperature class T4/135 °C (-40 °C...+85 °C) li	300 mA
Input power, max. P_i	3 W
Failure probability	
λ_{ges}	43
MTTF	2655 years

Note

VSPC 3/4 WIRE EX

Arresters / plugs

Bases and arresters should be ordered separately



Arrester / plug



Base / socket

Arrester / Plug

Technical data	
Rated voltage (DC)	3 V DC
Max. continuous voltage U_c (DC)	6.4 V DC
Signal transmission properties (-3 dB)	730 KHz
Pulse reset capacity	20 ms
Residual voltage U_r wire-wire / wire-PE / GND-PE	< 800 V 35 V / 800 V / 500 V
Protection level on output side sym. Input 1 kV/ μ s, typ. Input 8/20 μ s, typ.	< 35 V < 35 V
Protection level on output side unsym., Input 1 kV/ μ s, typ. Input 8/20 μ s, typ.	< 250 V < 800 V
Standards	IEC 61643-21, IEC 62305, EN 60079-0:2009, EN 60079-11:2007, EN 60079-26:2007, EN 61241-11:2009

Note

Ordering Data

Arrester / plug	
Type	VSPC 3/4WIRE 5VDC ATEX
Part No.	8953650000
Qty.	1

Note

VSPC 3/4WIRE 5 V DC EX

Rated voltage (DC)	3 V DC
Max. continuous voltage U_c (DC)	6.4 V DC
Signal transmission properties (-3 dB)	730 KHz
Pulse reset capacity	20 ms
Residual voltage U_r wire-wire / wire-PE / GND-PE	< 800 V 35 V / 800 V / 500 V
Protection level on output side sym. Input 1 kV/ μ s, typ. Input 8/20 μ s, typ.	< 35 V < 35 V
Protection level on output side unsym., Input 1 kV/ μ s, typ. Input 8/20 μ s, typ.	< 250 V < 800 V
Standards	IEC 61643-21, IEC 62305, EN 60079-0:2009, EN 60079-11:2007, EN 60079-26:2007, EN 61241-11:2009

Note

Base / Socket

Technical data	
Clamping range,	
Rated connection, min./max.	0.5 mm ² / 4 mm ²
Conductor cross section, flexible, min./max. solid, min./max. stranded, min./max.	0.5 mm ² / 2.5 mm ² 0.5 mm ² / 4 mm ² 0.5 mm ² / 2.5 mm ²
Stripping length	7 mm
Tightening torque	0.5...0.8 Nm

Note

Ordering Data

Base / socket	
Indirect earthing via gas discharged tube FG, floating ground	Type VSPC BASE 4SL FG EX
Part No.	8951840000
Qty.	1

Size of complete module (arrester + base)

Length x width x height	90 x 17.8 x 69 mm
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Note: Accessories: Screwdrivers
SD 0.6x3.5x200 Part No.: **9010110000**

VSPC BASE 4SL FG EX

Clamping range,	
Rated connection, min./max.	0.5 mm ² / 4 mm ²
Conductor cross section, flexible, min./max. solid, min./max. stranded, min./max.	0.5 mm ² / 2.5 mm ² 0.5 mm ² / 4 mm ² 0.5 mm ² / 2.5 mm ²
Stripping length	7 mm
Tightening torque	0.5...0.8 Nm

Note

Indirect earthing via gas discharged tube FG, floating ground	Type VSPC BASE 4SL FG EX
Part No.	8951840000
Qty.	1

Size of complete module (arrester + base)

Length x width x height	90 x 17.8 x 69 mm
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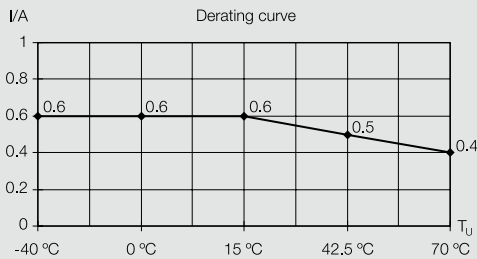
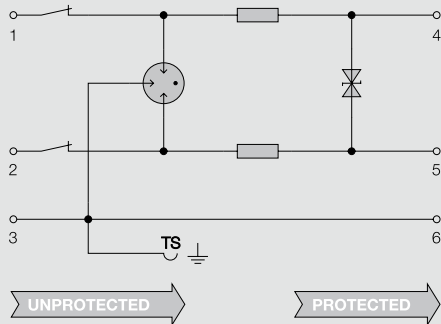
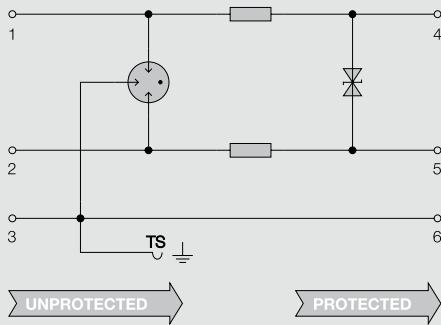
Note: Accessories: Screwdrivers
SD 0.6x3.5x200 Part No.: **9010110000**

VARITECTOR SSC

VSSC 6AN CL and TR CL – Protection for analog signals (CL) with and without disconnect lever (TR)

Two stage surge protection with screw connection for instrumentation, control and automation technology

- Surge protection in terminal block format
- Modular width of just 6.2 mm
- Space saving design: 1 analog signal
- Torx® slotted screw connection
- Can be used to comply with the IEC 62305 installation standard and the IEC 61643-1/-22 standards
- Integrated PE contact in base element, safely discharges up to 20 kA (8/20 μ s) and 2.5 kA (10/350 μ s) to PE



Technical Data

General data	
Nominal current	500 mA (see derating curve)
Dielectric strength at FG against PE	–
Volume resistivity	1.8 $\Omega \pm 10 \%$
Overstressed fault mode	Mode 2
Requirement category IEC 61643-21	C2; C3; D1
Standards	IEC 61643-21
Surge strength C2	2.5 kA
Surge strength C3	50 A
Surge strength D1	0.5 kA
Rated discharge current I _N (8/20 μ s) wire-wire / wire-PE / GND-PE	2.5 kA / 2.5 kA / –
Rated discharge current I _{max} (8/20 μ s) wire-wire / wire-PE / GND-PE	5 kA / 5 kA / –
Lightning test current, I _{imp} (10/350 μ s) wire-wire / wire-PE / GND-PE	– / 0.5 kA / –
Storage temperature	-40 °C...+80 °C
Ambient temperature (operational)	-40 °C...+70 °C
Humidity	5...96 % RH
Degree of protection	IP20
Flammability class	V0
Connection data	
Connection	Torx® T15 / slot 0.8 x 4
Tightening torque	0.5 Nm
Conductor cross section, flexible, ferrule (DIN 46228-1), max.	4 mm ²
Conductor cross section, flexible, ferrule (DIN 46228-1), min.	0.5 mm ²
Conductor cross section, solid, max.	6 mm ²
Conductor cross section, solid, min.	0.5 mm ²
Conductor cross section, stranded, Rated connection, max.	4 mm ²
Conductor cross section, stranded, Rated connection, min.	0.5 mm ²
Stripping length	10 mm
Mounting rail	TS35
Approvals	
UL Listed (USL). Assessed to UL497B. File ref. E 311081	
Dimensions	
Length x width x height	88.5 x 6.2 x 81 mm

Accessories: Screwdriver: Torx® 9009170000, slotted 9008340000; test plug: PS 2.3 0180400000; EMC SET: 1067470000; marker: WS 10/6 1818400000, DEK 6 0468560000, SNAPMARK 1805880000; end plate: 1063110000

VSSC CL and TR CL



CL 12 V DC



CL 24 V UC



CL 48 V UC



CL 60 V UC

Technical Data

Rated voltage AC/DC	12 V DC	24 V AC / 34 V DC	48 V AC / 68 V DC	60 V AC / 85 V DC
Max. continuous voltage U_c (AC) / (DC)	15 V DC	30 V AC / 42 V DC	60 V AC / 85 V DC	75 V AC / 106 V DC
Signal transmission properties (-3 dB)	≤ 700 kHz	≤ 700 kHz	≤ 700 kHz	≤ 700 kHz
Pulse reset capacity	≤ 20 ms	≤ 170 ms	≤ 150 ms	≤ 20 ms
Residual voltage U_r	≤ 1600 V	≤ 1650 V	≤ 1510 V	≤ 1520 V
wire-wire / wire-PE / GND-PE	35 V / 900 V / -	90 V / 900 V / -	200 V / 770 V / -	260 V / 780 V / -
Protection level on output side sym., input 1 kV/ μ s, typ.	30 V	70 V	70 V	200 V
Protection level on output side unsym., input 1 kV/ μ s, typ.	900 V	900 V	770 V	780 V

Ordering data

Type	VSSC6 CL 12Vdc 0.5A	VSSC6 CL 24Vuc 0.5A	VSSC6 CL 48Vuc 0.5A	VSSC6 CL 60Vuc 0.5A
Part No.	1064150000	1064170000	1064190000	1064210000
Qty.	10 pieces	10 pieces	10 pieces	10 pieces

Note



TR CL 12 V DC



TR CL 24 V UC



TR CL 48 V UC



TR CL 60 V UC

Technical Data

Rated voltage AC/DC	12 V DC	24 V AC / 34 V DC	48 V AC / 68 V DC	60 V AC / 85 V DC
Max. continuous voltage U_c (AC) / (DC)	15 V DC	30 V AC / 42 V DC	60 V AC / 85 V DC	75 V AC / 106 V DC
Signal transmission properties (-3 dB)	≤ 700 kHz	≤ 700 kHz	≤ 700 kHz	≤ 700 kHz
Pulse reset capacity	≤ 20 ms	≤ 170 ms	≤ 150 ms	≤ 20 ms
Residual voltage U_r	≤ 1600 V	≤ 1650 V	≤ 1510 V	≤ 1520 V
wire-wire / wire-PE / GND-PE	35 V / 900 V / -	90 V / 900 V / -	200 V / 770 V / -	260 V / 780 V / -
Protection level on output side sym., input 1 kV/ μ s, typ.	30 V	70 V	150 V	200 V
Protection level on output side unsym., input 1 kV/ μ s, typ.	900 V	900 V	770 V	780 V

Disconnect lever

Yes

Yes

Yes

Yes

Testing option

Functional screw with test plug receptacle connection 1, 2, 4, 5

Functional screw with test plug receptacle connection 1, 2, 4, 5

Functional screw with test plug receptacle connection 1, 2, 4, 5

Functional screw with test plug receptacle connection 1, 2, 4, 5

Ordering data

Type	VSSC6 TR CL 12Vdc 0.5A	VSSC6 TR CL 24Vuc 0.5A	VSSC6 TR CL 48Vuc 0.5A	VSSC6 TR CL 60Vuc 0.5A
Part No.	1064220000	1064230000	1064240000	1064250000
Qty.	10 pieces	10 pieces	10 pieces	10 pieces

Note

VARITECTOR SSC

VSSC 6AN CLFG and TR CLFG – Protection for analog signals (CL) with floating ground (FG) with and without disconnect lever (TR)

Two stage surge protection with screw connection for instrumentation, control and automation technology

- Surge protection in terminal-block format
- Modular width of just 6.2 mm
- Space saving design: 1 analog signal
- Torx® slotted screw connection
- Can be used to comply with the IEC 62305 installation standard and the IEC 61643-1/-22 applications standards.
- Integrated PE contact in base element, safely discharges up to 20 kA (8/20 μ s) and 2.5 kA (10/350 μ s) to PE
- Version with floating ground PE connection used to avoid differences in voltage potential



Technical Data

General data

Nominal current	500 mA (see derating curve)
Dielectric strength at FG against PE	≥ 500 V
Volume resistivity	$1.8 \Omega \pm 10 \%$
Overstressed fault mode	Mode 2
Requirement category acc. to IEC 61643-21	C2; C3; D1
Standards	IEC 61643-21
Surge strength C2	2.5 kA
Surge strength C3	50 A
Surge strength D1	0.5 kA
Rated discharge current I_N (8/20 μ s) wire-wire / wire-PE / GND-PE	2.5 kA / 2.5 kA / –
Rated discharge current I_{max} (8/20 μ s) wire-wire / wire-PE / GND-PE	5 kA / 5 kA / –
Lightning test current, I_{imp} (10/350 μ s) wire-wire / wire-PE / GND-PE	– / 0.5 kA / –
Storage temperature	-40 °C...+80 °C
Ambient temperature (operational)	-40 °C...+70 °C
Humidity	5...96 % RH
Degree of protection	IP20
Flammability class	V0

Connection data

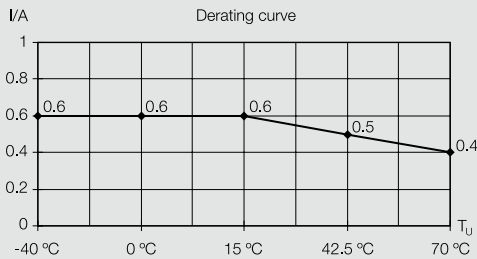
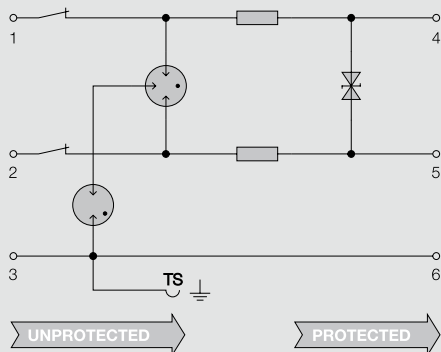
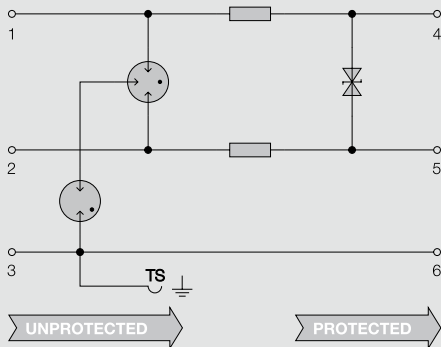
Connection	Torx® screw T15 / slot 0.8 x 4
Tightening torque	0.5 Nm
Conductor cross section, flexible, ferrule (DIN 46228-1), max.	4 mm ²
Conductor cross section, flexible, ferrule (DIN 46228-1), min.	0.5 mm ²
Conductor cross section, solid, max.	6 mm ²
Conductor cross section, solid, min.	0.5 mm ²
Conductor cross section, stranded, Rated connection, max.	4 mm ²
Conductor cross section, stranded, Rated connection, min.	0.5 mm ²
Stripping length	10 mm
Mounting rail	TS35

Approvals

UL Listed (USL). Assessed to UL497B. File ref. E 311081

Dimensions

Length x width x height	88.5 x 6.2 x 81 mm
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Accessories: Screwdriver: Torx® 9009170000, slotted 9008340000; test plug: PS 2.3 0180400000; EMC SET: 1067470000; marker: WS 10/6 1818400000, DEK 6 0468560000, SNAPMARK 1805880000; end plate: 1063110000

VSSC 6AN CLFG and TR CLFG



CLFG 12 V DC



CLFG 24 V UC



CLFG 48 V UC



CLFG 60 V UC

Technical Data

Rated voltage AC/DC	12 V DC	24 V AC / 34 V DC	48 V AC / 68 V DC	60 V AC / 85 V DC
Max. continuous voltage U_c (AC) / (DC)	15 V DC	30 V AC / 42 V DC	60 V AC / 85 V DC	75 V AC / 106 V DC
Signal transmission properties (-3 dB)	≤ 700 kHz	≤ 700 kHz	≤ 700 kHz	≤ 700 kHz
Pulse reset capacity	≤ 20 ms	≤ 20 ms	≤ 20 ms	≤ 20 ms
Residual voltage U_r	≤ 35 V	≤ 85 V	≤ 90 V	≤ 300 V
wire-wire / wire-PE / GND-PE	35 V / 1600 V / 800 V	90 V / 1632 V / 800 V	200 V / 1510 V / 800 V	260 V / 1510 V / 800 V
Protection level on output side sym. Input 1 kV/ μ s, typ.	30 V	70 V	150 V	200 V
Protection level on output side unsym., Input 1 kV/ μ s, typ.	1600 V	1632 V	1510 V	1510 V

Ordering data

Type	VSSC6 CLFG 12VDC 0.5A	VSSC6 CL FG24VUC 0.5A	VSSC6 CLFG 48VUC 0.5A	VSSC6 CLFG 60VUC 0.5A
Part No.	1064260000	1064270000	1064280000	1064290000
Qty.	10 pieces	10 pieces	10 pieces	10 pieces

Note



TR CLFG 12 V DC



TR CLFG 24 V UC



TR CLFG 48 V UC



TR CLFG 60 V UC

Technical Data

Rated voltage AC/DC	12 V DC	24 V AC / 34 V DC	48 V AC / 68 V DC	60 V AC / 85 V DC
Max. continuous voltage U_c (AC) / (DC)	15 V DC	30 V AC / 42 V DC	60 V AC / 85 V dc	75 V AC / 106 V DC
Signal transmission properties (-3 dB)	≤ 700 kHz	≤ 700 kHz	≤ 700 kHz	≤ 700 kHz
Pulse reset capacity	≤ 20 ms	≤ 20 ms	≤ 20 ms	≤ 20 ms
Residual voltage U_r	≤ 35 V	≤ 85 V	≤ 90 V	≤ 300 V
wire-wire / wire-PE / GND-PE	35 V / 1600 V / 800 V	90 V / 1632 V / 800 V	200 V / 1510 V / 800 V	260 V / 1510 V / 800 V
Protection level on output side sym. Input 1 kV/ μ s, typ.	30 V	70 V	150 V	200 V
Protection level on output side unsym., Input 1 kV/ μ s, typ.	1600 V	1632 V	1510 V	1510 V

Disconnect lever	yes	yes	yes	yes
Testing option	Functional screw with test plug receptacle connection 1, 2, 4, 5	Functional screw with test plug receptacle connection 1, 2, 4, 5	Functional screw with test plug receptacle connection 1, 2, 4, 5	Functional screw with test plug receptacle connection 1, 2, 4, 5

Ordering data

Type	VSSC6 TR CLFG 12Vdc0.5	VSSC6TR CLFG 24VUC 0.5A	VSSC6 TR CLFG 48VUC 0.5A	VSSC6 TR CLFG 60VUC 0.5A
Part No.	1064300000	1064310000	1064320000	1064330000
Qty.	10 pieces	10 pieces	10 pieces	10 pieces

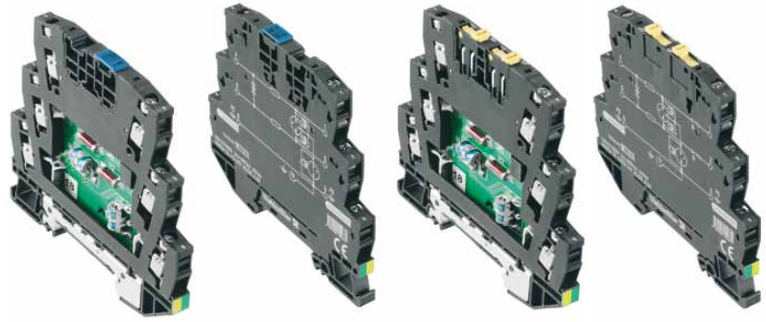
Note

VARITECTOR SSC

VSSC 6AN SL and TR SL – Protection for binary signals (SL) with and without disconnect lever (TR) and indicator (LD)

Two-stage surge protection with screw connection for instrumentation, control and automation technology

- Surge protection in terminal-block format
- Modular width of just 6.2 mm
- Space saving design: 2 binary signals
- Torx® slotted screw connection
- Can be used to comply with the IEC 62305 installation standard and the IEC 61643-1/-22 applications standards
- Integrated PE contact in base element, safely discharges up to 20 kA (8/20 μ s) and 2.5 kA (10/350 μ s) to PE



Technical Data

General data

Nominal current	500 mA (see derating curve)
Dielectric strength at FG against PE	–
Volume resistivity	1.8 $\Omega \pm 10 \%$
Overstressed fault mode	Mode 2
Requirement category acc. to IEC 61643-21	C2; C3; D1
Standards	IEC 61643-21
Surge strength C2	2.5 kA
Surge strength D1	1 kA
Rated discharge current I_N (8/20 μ s) wire-wire / wire-PE / GND-PE	– / 2.5 kA / –
Rated discharge current I_{max} (8/20 μ s) wire-wire / wire-PE / GND-PE	– / 10 kA / –
Lightning test current, I_{imp} (10/350 μ s) wire-wire / wire-PE / GND-PE	– / 1 kA / –
Storage temperature	-40 °C...+80 °C
Ambient temperature (operational)	-40 °C...+70 °C
Humidity	5...96 % RH
Degree of protection	IP20
Flammability class	V0

Connection data

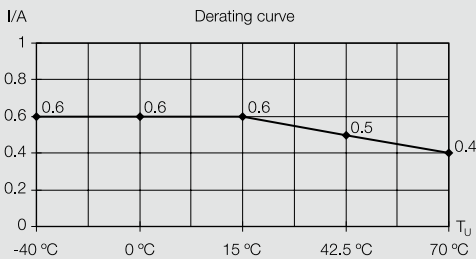
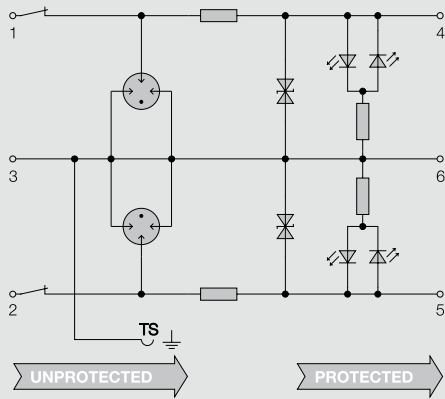
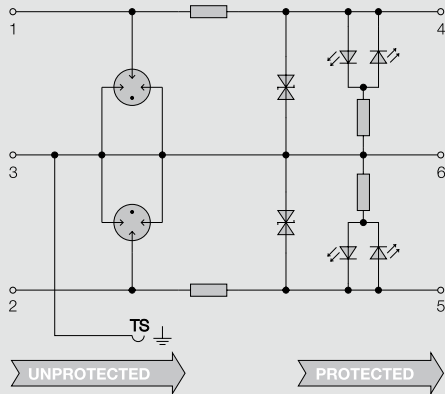
Connection	Torx® screw T15 / slot 0.8 x 4
Tightening torque	0.5 Nm
Conductor cross section, flexible, ferrule (DIN 46228-1), max.	4 mm ²
Conductor cross section, flexible, ferrule (DIN 46228-1), min.	0.5 mm ²
Conductor cross section, solid, max.	6 mm ²
Conductor cross section, solid, min.	0.5 mm ²
Conductor cross section, stranded, Rated connection, max.	4 mm ²
Conductor cross section, stranded, Rated connection, min.	0.5 mm ²
Stripping length	10 mm
Mounting rail	TS35

Approvals

UL Listed (USL). Assessed to UL497B. File ref. E 311081

Dimensions

Length x width x height	88.5 x 6.1 x 81 mm
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Accessories: Screwdriver: Torx® 9009170000, slotted 9008340000; test plug: PS 2.3 0180400000; EMC SET: 1067470000; marker: WS 10/6 1818400000, DEK 6 0468560000, SNAPMARK 1805880000; end plate: 1063110000

VSSC 6AN SL and TR SL



SL LD 12 V DC



SL LD 24 V UC



SL LD 4w8 V UC



SL LD 60 V UC

Technical Data

Rated voltage AC/DC	12 V DC	24 V AC / 34 V DC	48 V AC / 68 V DC	60 V AC / 85 V DC
Max. continuous voltage U_c (AC) / (DC)	15 V DC	30 V AC / 42 V DC	60 V AC / 85 V DC	75 V AC / 106 V DC
Signal transmission properties (-3 dB)	≤ 700 kHz	≤ 700 kHz	≤ 700 kHz	≤ 700 kHz
Pulse reset capacity	≤ 30 ms	≤ 30 ms	≤ 30 ms	≤ 30 ms
Residual voltage U_r	≤ 40 V	≤ 100 V	≤ 220 V	≤ 330 V
wire-wire / wire-PE / GND-PE	- / 74 V / -	- / 110 V / -	- / 175 V / -	- / 230 V / -
Protection level on output side sym. Input 1 kV/ μ s, typ.	-	-	-	-
Protection level on output side unsym., Input 1 kV/ μ s, typ.	74 V	110 V	175 V	230 V
Surge strength C3	10 A	50 A	50 A	50 A
Status indicator	Yes	Yes	Yes	Yes
Ordering data				
Type	VSSC6 SL LD 12VDC 0.5A	VSSC6 SL LD 24VUC 0.5A	VSSC6 SL LD 48VUC 0.5A	VSSC6 SL LD 60VUC 0.5A
Part No.	1064340000	1064350000	1064360000	1064370000
Qty.	10 pieces	10 pieces	10 pieces	10 pieces
Note				



TR SL LD 12 V DC



TR SL LD 24 V UC



TR SL LD 48 V UC



TR SL LD 60 V UC

Technical Data

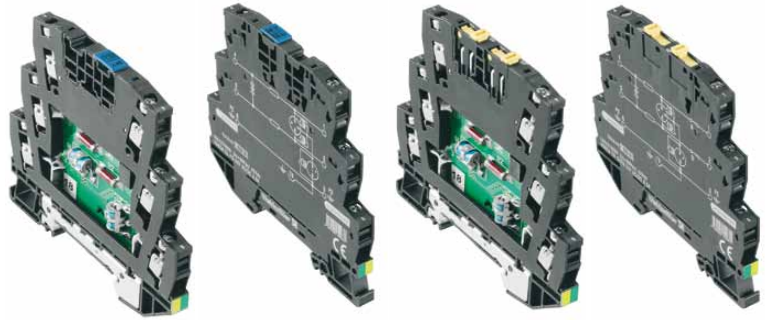
Rated voltage AC/DC	12 V DC	24 V AC / 34 V DC	48 V AC / 68 V DC	60 V AC / 85 V DC
Max. continuous voltage U_c (AC) / (DC)	15 V DC	30 V AC / 42 V DC	60 V AC / 85 V DC	75 V AC / 106 V DC
Signal transmission properties (-3 dB)	≤ 700 kHz	≤ 700 kHz	≤ 700 kHz	≤ 700 kHz
Pulse reset capacity	≤ 30 ms	≤ 30 ms	≤ 30 ms	≤ 30 ms
Residual voltage U_r	≤ 40 V	≤ 100 V	≤ 220 V	≤ 330 V
wire-wire / wire-PE / GND-PE	- / 74 V / -	- / 110 V / -	- / 175 V / -	- / 230 V / -
Protection level on output side sym. Input 1 kV/ μ s, typ.	-	-	-	-
Protection level on output side unsym., Input 1 kV/ μ s, typ.	74 V	110 V	175 V	230 V
Surge strength C3	10 A	50 A	50 A	50 A
Disconnect lever	Yes	Yes	Yes	Yes
Testing option	Functional screw with test plug receptacle connection 1, 2, 4, 5	Functional screw with test plug receptacle connection 1, 2, 4, 5	Functional screw with test plug receptacle connection 1, 2, 4, 5	Functional screw with test plug receptacle connection 1, 2, 4, 5
Status indicator	Yes	Yes	Yes	Yes
Ordering data				
Type	VSSC6 TR SL LD 12Vdc0.5A	VSSC6 TR SL LD 24VUC 0.5A	VSSC6 TR SL LD 48VUC 0.5A	VSSC6 TR SL LD 60VUC 0.5A
Part No.	1064380000	1064390000	1064400000	1064410000
Qty.	10 pieces	10 pieces	10 pieces	10 pieces
Note				

VARITECTOR SPC

VSSC 6AN SLFG and TR SLFG – Protection for binary signals (SL) with floating ground (FG), with and without disconnect lever (TR) and indicator (LD)

Two stage surge protection with screw connection for instrumentation, control and automation technology

- Surge protection in terminal block format
- Modular width of just 6.2 mm
- Space saving design: 2 binary signals
- Torx® slotted screw connection
- Can be used to comply with the IEC 62305 installation standard and the IEC 61643-1/-22 applications standards
- Integrated PE contact in base element, safely discharges up to 20 kA (8/20 μ s) and 2.5 kA (10/350 μ s) to PE
- Version with floating ground PE connection used to avoid differences in voltage potential



Technical Data

General data

Dielectric strength at FG against PE	≥ 500 V
Volume resistivity	$1.8 \Omega \pm 10 \%$
Overstressed fault mode	Mode 2
Requirement category acc. to IEC 61643-21	C2; C3; D1
Standards	IEC 61643-21
Surge strength C2	2.5 kA
Surge strength C3	10 A; 50 A @ 60 V
Surge strength D1	1 kA
Rated discharge current I_N (8/20 μ s) wire-wire / wire-PE / GND-PE	- / 2.5 kA / 2.5 kA
Rated discharge current I_{max} (8/20 μ s) wire-wire / wire-PE / GND-PE	- / 10 kA / 10 kA
Lightning test current, I_{imp} (10/350 μ s) wire-wire / wire-PE / GND-PE	- / 10 kA / -
Storage temperature	-40 °C...+80 °C
Ambient temperature (operational)	-40 °C...+70 °C
Humidity	5...96 % RH
Degree of protection	IP20
Flammability class	V0

Connection data

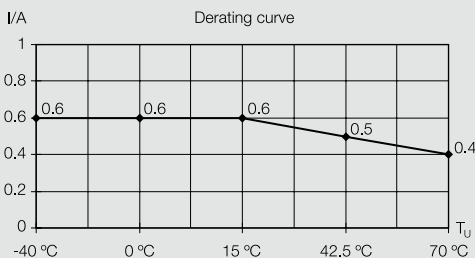
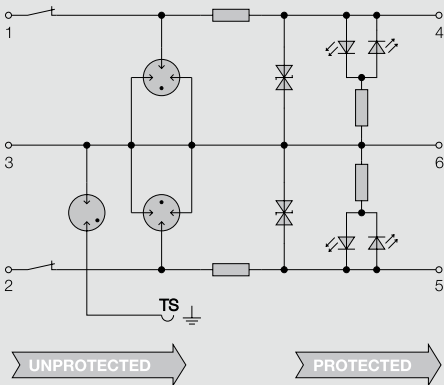
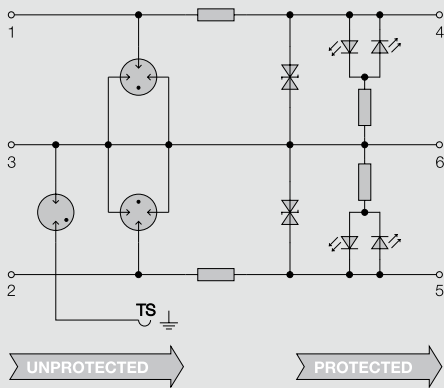
Connection	Torx® screw T15 / slot 0.8 x 4
Tightening torque	0.5 Nm
Conductor cross section, flexible, ferrule (DIN 46228-1), max.	4 mm ²
Conductor cross section, flexible, ferrule (DIN 46228-1), min.	0.5 mm ²
Conductor cross section, solid, max.	6 mm ²
Conductor cross section, solid, min.	0.5 mm ²
Conductor cross section, stranded, Rated connection, max.	4 mm ²
Conductor cross section, stranded, Rated connection, min.	0.5 mm ²
Stripping length	10 mm
Mounting rail	TS35

Approvals

UL Listed (USL). Assessed to UL497B. File ref. E 311081

Dimensions

Length x width x height	88.5 x 6.2 x 81 mm
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Accessories: Screwdriver: Torx® 9009170000, slotted 9008340000; test plug: PS 2.3 0180400000; EMC SET: 1067470000; marker: WS 10/6 1818400000, DEK 6 0468560000, SNAPMARK 1805880000; end plate: 1063110000

VSSC 6AN SLFG and TR SLFG



Technical Data

Rated voltage AC/DC	12 V DC	24 V AC / 34 V DC	48 V AC / 68 V DC	60 V AC / 85 V DC
Max. continuous voltage U_c (AC) / (DC)	15 V DC	30 V AC / 42 V DC	60 V AC / 85 V DC	75 V AC / 106 V DC
Signal transmission properties (-3 dB)	≤ 700 kHz	≤ 700 kHz	≤ 700 kHz	≤ 700 kHz
Pulse reset capacity	≤ 20 ms	≤ 20 ms	≤ 20 ms	≤ 20 ms
Residual voltage U_p	≤ 1600 V	≤ 1650 V	≤ 1550 V	≤ 1550 V
wire-wire / wire-PE / GND-PE	- / 74 V / 1400 V	- / 110 V / 1400 V	- / 175 V / 1200 V	- / 230 V / 1200 V
Protection level on output side sym. Input 1 kV/ μ s, typ.	30 V	70 V	150 V	200 V
Protection level on output side unsym., Input 1 kV/ μ s, typ.	74 V	110 V	175 V	230 V
Nominal current	500 mA	200 mA (IEC 61643-21)	on request	on request
Status indicator	yes	yes	yes	yes
Ordering data				
Type	VSSC6 SLFG 12VDC 0.5A	VSSC6 SLFG 24VUC 0.5A	VSSC6 SLFG 48VUC 0.5A	VSSC6 SLFG 60VUC 0.5A
Part No.	1064420000	1064430000	1064440000	1064470000
Qty.	10 pieces	10 pieces	10 pieces	10 pieces
Note				

SLFG LD 12 V DC

SLFG LD 24 V UC

SLFG LD 48 V UC

SLFG LD 60 V UC



Technical Data

Rated voltage AC/DC	12 V DC	24 V AC / 34 V DC	48 V AC / 68 V DC	60 V AC / 85 V DC
Max. continuous voltage U_c (AC) / (DC)	15 V DC	30 V AC / 42 V DC	60 V AC / 85 V DC	75 V AC / 106 V DC
Signal transmission properties (-3 dB)	≤ 700 kHz	≤ 700 kHz	≤ 700 kHz	≤ 700 kHz
Pulse reset capacity	≤ 20 ms	≤ 20 ms	≤ 20 ms	≤ 20 ms
Residual voltage U_p	≤ 1600 V	≤ 1650 V	≤ 1550 V	≤ 1550 V
wire-wire / wire-PE / GND-PE	- / 74 V / 1400 V	- / 110 V / 1400 V	- / 175 V / 1200 V	- / 230 V / 1200 V
Protection level on output side sym. Input 1 kV/ μ s, typ.	30 V	70 V	150 V	200 V
Protection level on output side unsym., Input 1 kV/ μ s, typ.	74 V	110 V	175 V	230 V
Nominal current	500 mA	200 mA (IEC 61643-21)	on request	on request
Disconnect lever	Yes	Yes	Yes	Yes
Testing option	Functional screw with test plug receptacle connection 1, 2, 4, 5	Functional screw with test plug receptacle connection 1, 2, 4, 5	Functional screw with test plug receptacle connection 1, 2, 4, 5	Functional screw with test plug receptacle connection 1, 2, 4, 5
Status indicator	Yes	Yes	Yes	Yes
Ordering data				
Type	VSSC6 TR SLFG LD 12VDC 0.5A	VSSC6 TR SLFG LD 24VUC 0.5A	VSSC6 TR SL FG LD 48VUC 0.5A	VSSC6 TR SLFG LD 60VUC 0.5A
Part No.	1064490000	1064500000	1064510000	1064520000
Qty.	10 pieces	10 pieces	10 pieces	10 pieces
Note				

TR SLFG LD 12 V DC

TR SLFG LD 24 V UC

TR SLFG LD 48 V UC

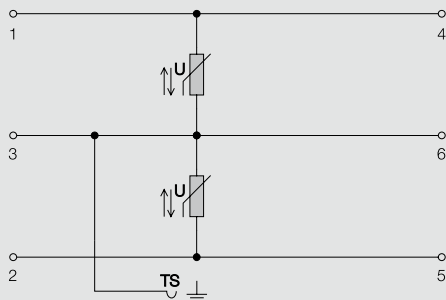
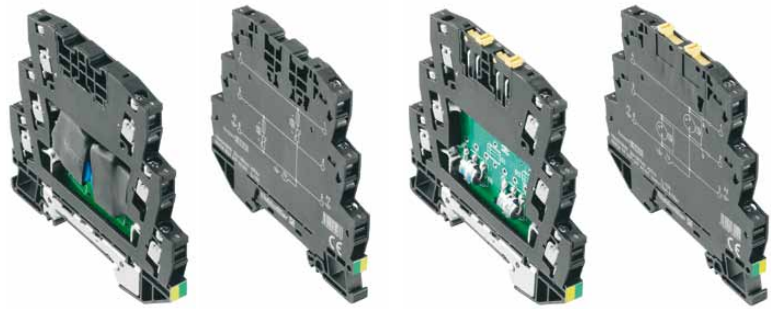
TR SLFG LD 60 V UC

VARITECTOR SSC

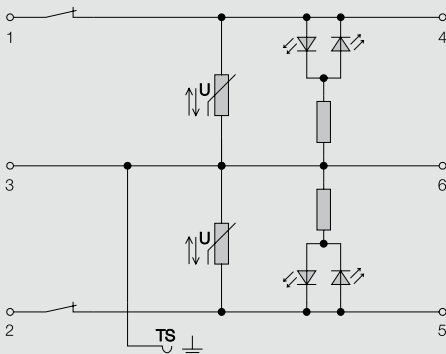
VSSC 6AN MOV and TR LD MOV 12 V DC and 24 V UC – with varistor, with and without disconnect lever (TR) and indicator (LD)

Surge protection with screw connection for instrumentation, control and automation technology

- Surge protection in terminal block format
- Modular width of just 6.2 mm
- Space saving design: 2 analog signals
- Torx® slotted screw connection
- Can be used to comply with the IEC 62305 installation standard and the IEC 61643-1/-22 applications standards
- Integrated PE contact in base element, safely discharges up to 20 kA (8/20 μ s) and 2.5 kA (10/350 μ s) to PE

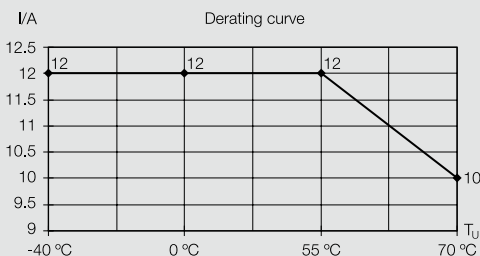


UNPROTECTED → PROTECTED



UNPROTECTED → PROTECTED

Simplified diagram



Technical Data

General data	
Nominal current	12 A (see derating curve)
Volume resistivity	< 0.1 Ω
Overstressed fault mode	Mode 1
Requirement category acc. to IEC 61643-21	C1
Standards	IEC 61643-21 (Pending)
Surge strength C1	0.25 kA
Rated discharge current I _N (8/20 μ s) wire-wire / wire-PE / GND-PE	- / 500 A / -
Rated discharge current I _{max} (8/20 μ s) wire-wire / wire-PE / GND-PE	- / 1 kA / -
Storage temperature	-40 °C...+80 °C
Ambient temperature (operational)	-40 °C...+70 °C
Humidity	5...96 % RH
Degree of protection	IP20
Flammability class	V0
Connection data	
Connection	Torx® screw T15 / slot 0.8 x 4
Tightening torque	0.5 Nm
Conductor cross section, flexible, ferrule (DIN 46228-1), max.	4 mm ²
Conductor cross section, flexible, ferrule (DIN 46228-1), min.	0.5 mm ²
Conductor cross section, solid, max.	6 mm ²
Conductor cross section, solid, min.	0.5 mm ²
Conductor cross section, stranded, Rated connection, max.	4 mm ²
Conductor cross section, stranded, Rated connection, min.	0.5 mm ²
Stripping length	10 mm
Mounting rail	TS35
Approvals	
UL Listed (USL). Assessed to UL497B. File ref. E 311081	
Dimensions	
Length x width x height	88.5 x 6.2 x 81 mm

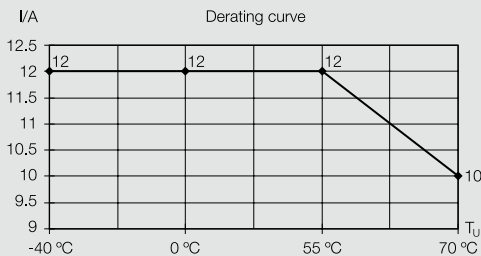
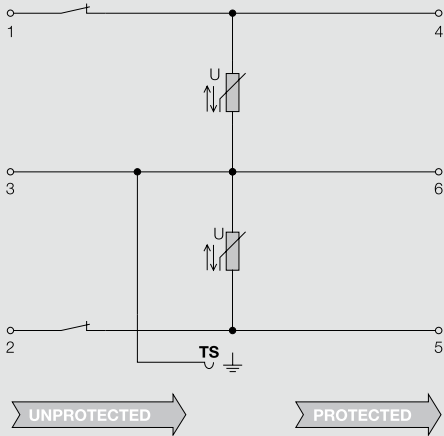
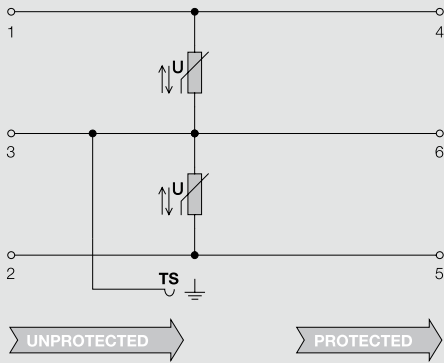
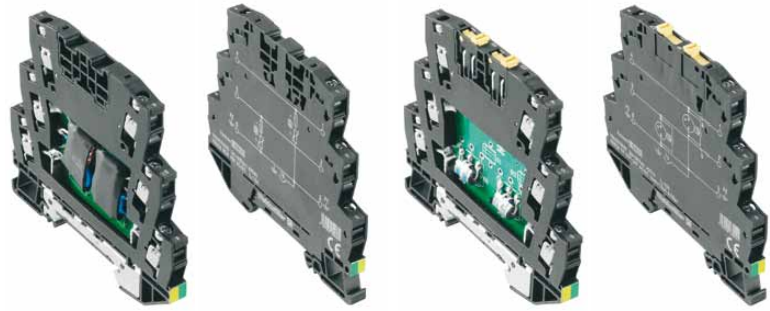
Accessories: Screwdriver: Torx® 9009170000, slotted 9008340000; test plug: PS 2.3 0180400000; EMC SET: 1067470000; marker: WS 10/6 1818400000, DEK 6 0468560000, SNAPMARK 1805880000; end plate: 1063110000

VARITECTOR SSC

VSSC 6AN MOV and TR LD MOV 48 V UC and 60 V UC – with varistor, with and without disconnect lever (TR) and indicator (LD)

Surge protection with screw connection for instrumentation, control and automation technology

- Surge protection in terminal block format
- Modular width of just 6.2 mm
- Space saving design: 2 analog signals
- Torx® slotted screw connection
- Can be used to comply with the IEC 62305 installation standard and the IEC 61643-1/-22 applications standards
- Integrated PE contact in base element, safely discharges up to 20 kA (8/20 μs) and 2.5 kA (10/350 μs) to PE



Technical Data

General data

Nominal current	12 A (see derating curve)
Volume resistivity	< 0.1 Ω
Overstressed fault mode	Mode 1
Requirement category acc. to IEC 61643-21	C1
Standards	acc. to IEC 61643-21
Surge strength C1	0.5 kA
Surge strength C2	1 kA
Rated discharge current I _N (8/20 μs) wire-wire / wire-PE / GND-PE	- / 1 kA / -
Rated discharge current I _{max} (8/20 μs) wire-wire / wire-PE / GND-PE	- / 4.5 kA / -
Storage temperature	-40 °C...+80 °C
Ambient temperature (operational)	-40 °C...+70 °C
Humidity	5...96 % RH
Degree of protection	IP20
Flammability class	V0

Connection data

Connection	Torx® screw T15 / slot 0.8 x 4
Tightening torque	0.5 Nm
Conductor cross section, flexible, ferrule (DIN 46228-1), max.	4 mm ²
Conductor cross section, flexible, ferrule (DIN 46228-1), min.	0.5 mm ²
Conductor cross section, solid, max.	6 mm ²
Conductor cross section, solid, min.	0.5 mm ²
Conductor cross section, stranded, Rated connection, max.	4 mm ²
Conductor cross section, stranded, Rated connection, min.	0.5 mm ²
Stripping length	10 mm
Mounting rail	TS35

Approvals

UL Listed (USL). Assessed to UL497B. File ref. E 311081

Dimensions

Length x width x height	88.5 x 6.2 x 81 mm
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Accessories: Screwdriver: Torx® 9009170000, slotted 9008340000; test plug: PS 2.3 0180400000; EMC SET: 1067470000; marker: WS 10/6 1818400000, DEK 6 0468560000, SNAPMARK 1805880000; end plate: 1063110000

**VSSC MOV and TR LD MOV
48 V UC and 60 V UC**



MOV 48VUC



MOV 60VUC

Technical Data

Rated voltage AC/DC	
Max. continuous voltage U_c (AC) / (DC)	
Signal transmission properties (-3 dB)	
Residual voltage U_r	
wire-wire / wire-PE / GND-PE	
Protection level on output side sym.	
Input 1 kV/ μ s, typ.	
Ordering data	
Type	
Part No.	
Qty.	
Note	

48 V AC / 60 V DC
60 V AC / 85 V DC
≤ 400 kHz
≤ 200 V
- / 213 V / -
200 V
VSSC6 MOV 48VUC
1064570000
10 pieces

60 V AC / 85 V DC
75 V AC / 106 V DC
≤ 600 kHz
≤ 250 V
- / 269 V / -
250 V
VSSC6 MOV 60VUC
1064600000
10 pieces



TR LD MOV 48VUC



TR LD MOV 60VUC

Technical Data

Rated voltage AC/DC	
Max. continuous voltage U_c (AC) / (DC)	
Signal transmission properties (-3 dB)	
Residual voltage U_r	
wire-wire / wire-PE / GND-PE	
Protection level on output side sym.	
Input 1 kV/ μ s, typ.	
Disconnect lever	
Testing option	
Status indicator	
Ordering data	
Type	
Part No.	
Qty.	
Note	

48 V AC / 60 V DC
60 V AC / 85 V DC
≤ 400 kHz
≤ 200 V
- / 213 V / -
200 V
Yes
Functional screw with test plug receptacle connection 1, 2, 4, 5
VSSC6 TR LD MOV 48VUC
1064820000
10 pieces

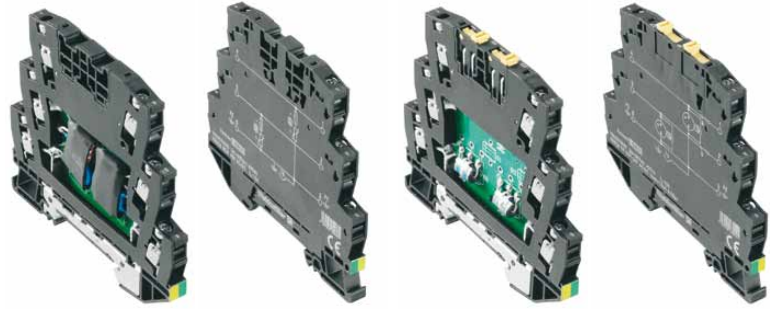
60 V AC / 85 V DC
75 V AC / 106 V DC
≤ 600 kHz
≤ 250 V
- / 269 V / -
250 V
Yes
Functional screw with test plug receptacle connection 1, 2, 4, 5
VSSC6 TR LD MOV 60VUC
1064830000
10 pieces

VARITECTOR SSC

VSSC 6AN MOV and TR LD MOV 120 V UC, 150 V UC and 240 V UC – with varistor, with and without disconnect lever (TR) and indicator (LD)

Surge protection with screw connection for instrumentation, control and automation technology

- Surge protection in terminal block format
- Modular width of just 6.2 mm
- Space saving design: 2 analog signals
- Torx® slotted screw connection
- Can be used to comply with the IEC 62305 installation standard and the IEC 61643-1/-22 applications standards
- Integrated PE contact in base element, safely discharges up to 20 kA (8/20 μ s) and 2.5 kA (10/350 μ s) to PE



Technical Data

General data

Nominal current	12 A (see derating curve)
Volume resistivity	< 0.1 Ω
Overstressed fault mode	Mode 1
Requirement category acc. to IEC 61643-21	C1, C2
Standards	IEC 61643-21 (Pending)
Surge strength C1	0.5 kA
Surge strength C2	1.5 kA
Rated discharge current I_N (8/20 μ s) wire-wire / wire-PE / GND-PE	- / 500 A / -
Rated discharge current I_{max} (8/20 μ s) wire-wire / wire-PE / GND-PE	- / 1.5 kA / -
Storage temperature	-40 °C...+80 °C
Ambient temperature (operational)	-40 °C...+70 °C
Humidity	5...96 % RH
Degree of protection	IP20
Flammability class	V0

Connection data

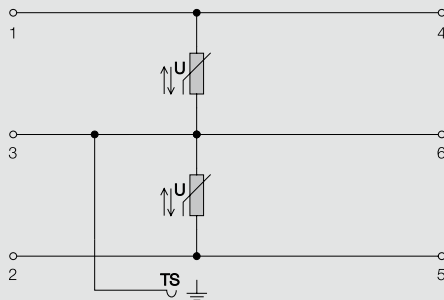
Connection	Torx® screw T15 / slot 0.8 x 4
Tightening torque	0.5 Nm
Conductor cross section, flexible, ferrule (DIN 46228-1), max.	4 mm ²
Conductor cross section, flexible, ferrule (DIN 46228-1), min.	0.5 mm ²
Conductor cross section, solid, max.	6 mm ²
Conductor cross section, solid, min.	0.5 mm ²
Conductor cross section, stranded, Rated connection, max.	4 mm ²
Conductor cross section, stranded, Rated connection, min.	0.5 mm ²
Stripping length	10 mm
Mounting rail	TS35

Approvals

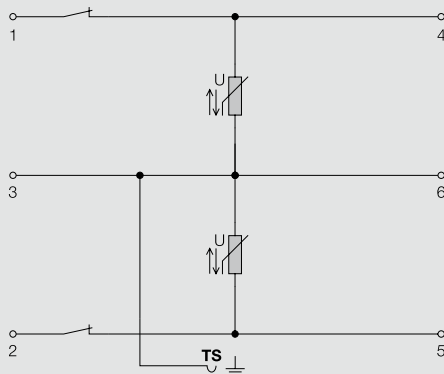
UL Listed (USL). Assessed to UL497B. File ref. E 311081

Dimensions

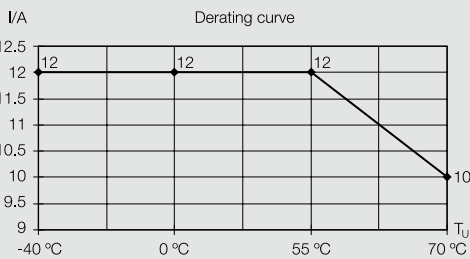
Length x width x height	88.5 x 12.4 x 81 mm
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UNPROTECTED → PROTECTED



UNPROTECTED → PROTECTED



Accessories: Screwdriver: Torx® 9009170000, slotted 9008340000; test plug: PS 2.3 0180400000; EMC SET: 1067470000; marker: WS 10/6 1818400000, DEK 6 0468560000, SNAPMARK 1805880000; end plate: 1063110000

VSSC MOV and TR LD MOV
120 V UC, 150 V UC and 240 V UC



MOV 120VUC



MOV 150VUC



MOV 240VUC

Technical Data

Rated voltage AC/DC	120 V AC / 170 V DC	150 V AC / 212 V DC	240 V AC / 339 V DC
Max. continuous voltage U_c (AC) / (DC)	150 V AC / 212 V DC	188 V AC / 266 V DC	288 V AC / 407 V DC
Signal transmission properties (-3 dB)	≤ 1 MHz	≤ 1 MHz	≤ 1.7 MHz
Residual voltage U_p	≤ 500 V	≤ 600 V	≤ 900 V
wire-wire / wire-PE / GND-PE	- / 543 V / -	- / 641 V / -	- / 1022 V / -
Protection level on output side sym. Input 1 kV/ μ s, typ.	500 V	600 V	1000 V

Ordering data

Type	VSSC6 MOV 120VUC	VSSC6 MOV 150VUC	VSSC6 MOV 240VUC
Part No.	1064610000	1064620000	1064630000
Qty.	10 pieces	10 pieces	10 pieces

Note



TR LD MOV 120VUC



TR LD MOV 150VUC



TR LD MOV 240VUC

Technical Data

Rated voltage AC/DC	120 V AC / 170 V DC	150 V AC / 212 V DC	240 V AC / 339 V DC
Max. continuous voltage U_c (AC) / (DC)	150 V AC / 212 V DC	188 V AC / 266 V DC	288 V AC / 407 V DC
Signal transmission properties (-3 dB)	≤ 1 MHz	≤ 1 MHz	≤ 1.7 MHz
Residual voltage U_p	≤ 500 V	≤ 600 V	≤ 900 V
wire-wire / wire-PE / GND-PE	- / 543 V / -	- / 641 V / -	- / 1022 V / -
Protection level on output side sym. Input 1 kV/ μ s, typ.	500 V	600 V	1000 V

Disconnect lever

Yes

Yes

Yes

Testing option

Functional screw with test plug receptacle connection 1, 2, 4, 5

Functional screw with test plug receptacle connection 1, 2, 4, 5

Functional screw with test plug receptacle connection 1, 2, 4, 5

Status indicator

Yes

Yes

Yes

Ordering data

Type	VSSC6 TR LD MOV 120VUC	VSSC6 TR LD MOV 150VUC	VSSC6 TR LD MOV 240VUC
Part No.	1064840000	1064850000	1064860000
Qty.	10 pieces	10 pieces	10 pieces

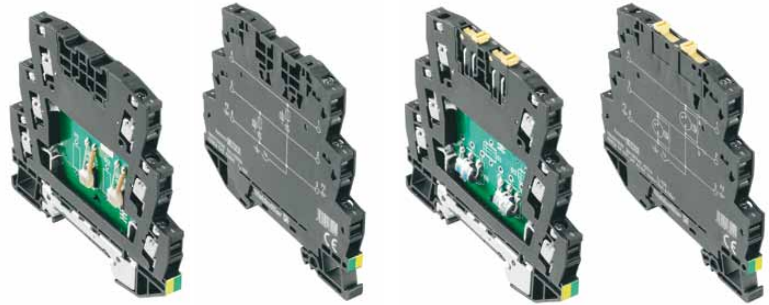
Note

VARITECTOR SSC

VSSC 6AN TAZ and TR TAZ – with suppressor diode gap, with and without disconnect lever (TR) and indication (LD)

Surge protection with screw connection for instrumentation, control and automation technology

- Surge protection in terminal block format
- Modular width of just 6.2 mm
- Space saving design: 2 analog signals
- Torx® slotted screw connection
- Can be used to comply with the IEC 62305 installation standard and the IEC 61643-1/-22 applications standards
- Integrated PE contact in base element, safely discharges up to 20 kA (8/20 μ s) and 2.5 kA (10/350 μ s) to PE



Technical Data

General data

Nominal current	12 A (see derating curve)
Volume resistivity	< 0.1 Ω
Overstressed fault mode	Mode 1
Storage temperature	-40 °C...+80 °C
Ambient temperature (operational)	-40 °C...+70 °C
Humidity	5...96 % RH
Degree of protection	IP20
Flammability class	V0

Connection data

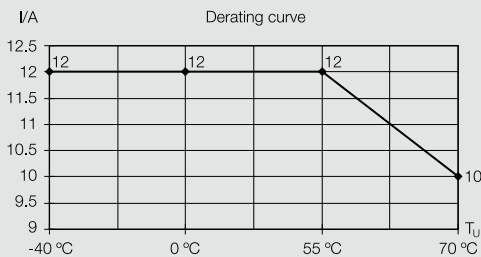
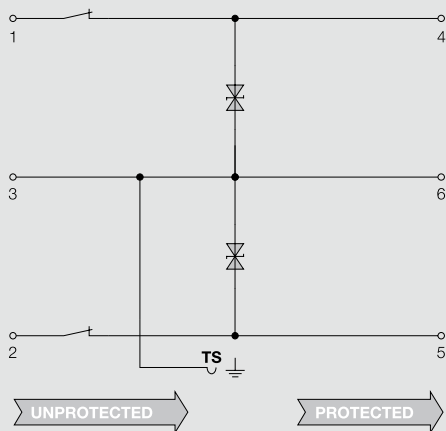
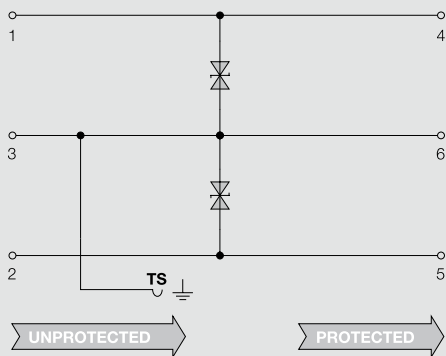
Connection	Torx® screw T15 / slot 0.8 x 4
Tightening torque	0.5 Nm
Conductor cross section, flexible, ferrule (DIN 46228-1), max.	4 mm ²
Conductor cross section, flexible, ferrule (DIN 46228-1), min.	0.5 mm ²
Conductor cross section, solid, max.	6 mm ²
Conductor cross section, solid, min.	0.5 mm ²
Conductor cross section, stranded, Rated connection, max.	4 mm ²
Conductor cross section, stranded, Rated connection, min.	0.5 mm ²
Stripping length	10 mm
Mounting rail	TS35

Approvals

UL Listed (USL). Assessed to UL497B. File ref. E 311081

Dimensions

Length x width x height	88.5 x 6.2 x 81 mm
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Accessories: Screwdriver: Torx® 9009170000, slotted 9008340000; test plug: PS 2.3 0180400000; EMC SET: 1067470000; marker: WS 10/6 1818400000, DEK 6 0468560000, SNAPMARK 1805880000; end plate: 1063110000

VSSC TAZ and TR LD TAZ



Technical Data

	TAZ 12VDC	TAZ 24VUC
Rated voltage AC/DC	12 V DC	24 V UC / 34 V DC
Max. continuous voltage U_c (AC) / (DC)	15 V DC	30 V AC / 42 V DC
Signal transmission properties (-3 dB)	≤ 1 MHz	≤ 1 MHz
Pulse reset capacity	≤ 30 ms	≤ 30 ms
Residual voltage U_p	≤ 22 V	≤ 61 V
wire-wire / wire-PE / GND-PE	- / 26 V / -	- / 62 V / -
Protection level on output side sym. Input 1 kV/ μ s, typ.	30 V	70 V
Requirement category to IEC 61643-21	C3	C3
Surge strength C3	50 A	15 A
Rated discharge current I_N (8/20 μ s) wire-PE	200 A	100 A
Rated discharge current I_{max} (8/20 μ s) wire-PE	500 A	200 A
Standards	IEC 61643-21	IEC 61643-21
Ordering data		
Type	VSSC6 TAZ 12VDC	VSSC6 TAZ 24VUC
Part No.	1064730000	1064740000
Qty.	10 pieces	10 pieces
Note		



Technical Data

	TR LD TAZ 12VDC	TR LD TAZ 24VUC
Rated voltage AC/DC	12 V DC	24 V UC / 34 V DC
Max. continuous voltage U_c (AC) / (DC)	15 V DC	30 V AC / 42 V DC
Signal transmission properties (-3 dB)	≤ 1 MHz	≤ 1 MHz
Pulse reset capacity	≤ 30 ms	≤ 30 ms
Residual voltage U_p	≤ 22 V	≤ 61 V
wire-wire / wire-PE / GND-PE	- / 26 V / -	- / 62 V / -
Protection level on output side sym. Input 1 kV/ μ s, typ.	30 V	70 V
Requirement category to IEC 61643-21	C3	C3
Surge strength C3	50 A	15 A
Rated discharge current I_N (8/20 μ s) wire-PE	200 A	100 A
Rated discharge current I_{max} (8/20 μ s) wire-PE	500 A	200 A
Standards	IEC 61643-21	IEC 61643-21
Disconnect lever	Yes	Yes
Testing option	Functional screw with test plug receptacle connection 1, 2, 4, 5	Functional screw with test plug receptacle connection 1, 2, 4, 5
Ordering data		
Type	VSSC6 TR LD TAZ 12VDC	VSSC6 TR LD TAZ 24VUC
Part No.	1064940000	1064950000
Qty.	10 pieces	10 pieces
Note		

VARITECTOR SSC

VSSC 6AN RS485, RS485 DP and RS232 – for interface signals

Two-stage surge protection with screw connection for instrumentation, control and automation technology

- Surge protection in terminal block format
- Modular width of just 6.2 mm
- Space saving design
- Torx® slotted screw connection
- Can be used to comply with the IEC 62305 installation standard and the IEC 61643-1/-22 applications standards
- Integrated PE contact in base element, safely discharges up to 20 kA (8/20 μ s) and 2.5 kA (10/350 μ s) to PE



Technical Data

General data

Nominal current	500 mA (see derating curve)
Volume resistivity	1.8 $\Omega \pm 10 \%$
Overstressed fault mode	Mode 2
Requirement category to IEC 61643-21	C2, C3, D1
Standards	IEC 61643-21
Surge strength C2	2.5 kA
Surge strength C3	10 A
Surge strength D1	0.5 kA
Rated discharge current I_N (8/20 μ s) wire-wire / wire-PE / GND-PE	2.5 kA / 2.5 kA / –
Rated discharge current I_{max} (8/20 μ s) wire-wire / wire-PE / GND-PE	10 kA / 10 kA / –
Lightning test current, I_{imp} (10/350 μ s) wire-wire / wire-PE / GND-PE	1 kA
Storage temperature	-40 °C...+80 °C
Ambient temperature (operational)	-40 °C...+70 °C
Humidity	5...96 % RH
Degree of protection	IP20
Flammability class	V0

Connection data

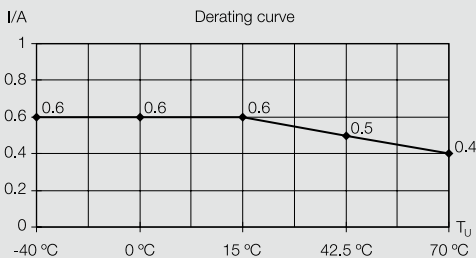
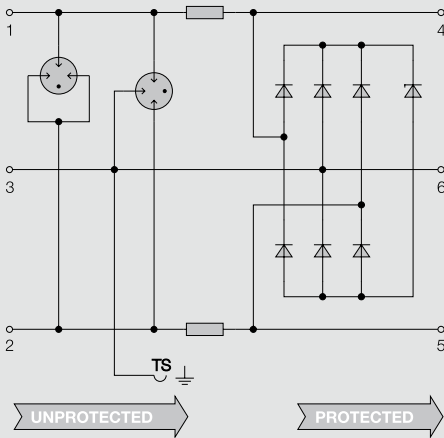
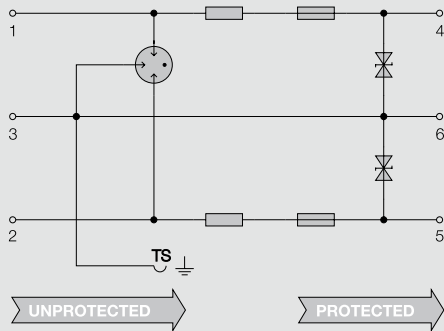
Connection	Torx® screw T15 / slot 0.8 x 4
Tightening torque	0.5 Nm
Conductor cross section, flexible, ferrule (DIN 46228-1), max.	4 mm ²
Conductor cross section, flexible, ferrule (DIN 46228-1), min.	0.5 mm ²
Conductor cross section, solid, max.	6 mm ²
Conductor cross section, solid, min.	0.5 mm ²
Conductor cross section, stranded, Rated connection, max.	4 mm ²
Conductor cross section, stranded, Rated connection, min.	0.5 mm ²
Stripping length	10 mm

Approvals

UL Listed (USL). Assessed to UL497B. File ref. E 311081

Dimensions

Length x width x height	88.5 x 6.2 x 81 mm
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Accessories: Screwdriver: Torx® 9009170000, slotted 9008340000; test plug: PS 2.3 0180400000; EMC SET: 1067470000; marker: WS 10/6 1818400000, DEK 6 0468560000, SNAPMARK 1805880000; end plate: 1063110000

VSSC 6AN RS485, RS485 DP and RS232
Technical Data

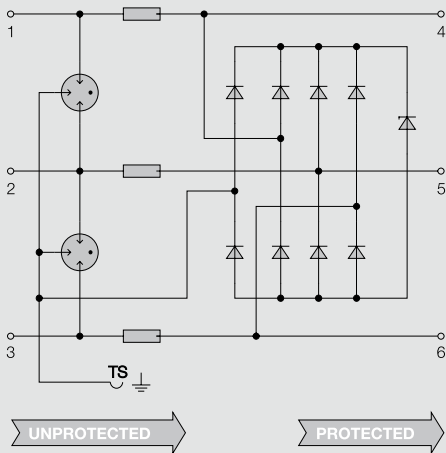
	RS485	RS485 DP	RS232
Rated voltage AC/DC	12 V DC	12 V DC	12 V DC
Max. continuous voltage U_c (DC)	15 V DC	15 V DC	15 V DC
Signal transmission properties (-3 dB)	≤ 2 MHz	≤ 2 MHz	≤ 2 MHz
Pulse reset capacity	≤ 20 ms	≤ 20 ms	≤ 20 ms
Residual voltage U_r	≤ 94 V	≤ 94 V	≤ 80 V
wire-wire / wire-PE / GND-PE	35 V / 35 V / -	35 V / 35 V / -	70 V / 35 V / -
Protection level on output side sym. Input 1 kV/ μ s, typ.	30 V	30 V	60 V
Protection level on output side unsym., Input 1 kV/ μ s, typ.	94 V		
Ordering data			
Type	VSSC6 RS485	VSSC6 RS485 DP	VSSC6 RS232
Part No.	1064980000	1065010000	1064990000
Qty.	10 pieces	10 pieces	10 pieces
Note			

VARITECTOR SSC

VSSC 6AN RTD – for temperature signals

Two-stage surge protection with screw connection for instrumentation, control and automation technology

- Surge protection in terminal block format
- Modular width of just 6.2 mm
- Space saving design
- Torx® slotted screw connection
- Can be used to comply with the IEC 62305 installation standard and the IEC 61643-1/-22 applications standards
- Integrated PE contact in base element, safely discharges up to 20 kA (8/20 μ s) and 2.5 kA (10/350 μ s) to PE



Technical Data

General data

Nominal current	300 mA
Dielectric strength at FG against PE	–
Volume resistivity	1.8 Ω \pm 10 %
Overstressed fault mode	Mode 2
Requirement category acc. to IEC 61643-21	C2, C3, D1
Standards	IEC 61643-21
Surge strength C2	2.5 kA 8/20 μ s, 5 kV 1,2/50 μ s
Surge strength C3	10 A 10/1000 μ s
Surge strength D1	0.5 kA 10/350 μ s
Rated discharge current I_N (8/20 μ s) wire-wire / wire-PE / GND-PE	2.5 kA / 2.5 kA / –
Rated discharge current I_{max} (8/20 μ s) wire-wire / wire-PE / GND-PE	10 kA / 10 kA / –
Lightning test current, I_{imp} (10/350 μ s) wire-wire / wire-PE / GND-PE	1 kA
Storage temperature	-40 °C...+80 °C
Ambient temperature (operational)	-40 °C...+70 °C
Humidity	5...96 % RH
Degree of protection	IP20
Flammability class	V0

Connection data

Connection	Torx® screw T15 / slot 0.8 x 4
Tightening torque	0.5 Nm
Conductor cross section, flexible, ferrule (DIN 46228-1), max.	4 mm ²
Conductor cross section, flexible, ferrule (DIN 46228-1), min.	0.5 mm ²
Conductor cross section, solid, max.	6 mm ²
Conductor cross section, solid, min.	0.5 mm ²
Conductor cross section, stranded, Rated connection, max.	4 mm ²
Conductor cross section, stranded, Rated connection, min.	0.5 mm ²
Stripping length	10 mm
Mounting rail	TS35

Approvals

UL Listed (USL). Assessed to UL497B. File ref. E 311081

Dimensions

Length x width x height	88.5 x 6.2 x 81 mm
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Accessories: Screwdriver: Torx® 9009170000, slotted 9008340000; test plug: PS 2.3 0180400000; EMC SET: 1067470000; marker: WS 10/6 1818400000, DEK 6 0468560000, SNAPMARK 1805880000; end plate: 1063110000

VSSC 6AN RTD

Technical Data

Rated voltage AC/DC
Max. continuous voltage U_c (DC)
Signal transmission properties (-3 dB)
Pulse reset capacity
Residual voltage U_r
wire-wire / wire-PE / GND-PE
Protection level on output side sym. Input 1 kV/ μ s, typ.
Protection level on output side unsym., Input 1 kV/ μ s, typ.

RTD

1 V DC
5 V DC
≤ 1 MHz
≤ 20 ms
≤ 126 V
15 V / 15 V / -
10 V
10 V

Ordering data

Type
Part No.
Qty.

VSSC6 RTD
1139710000
10 pieces

Note

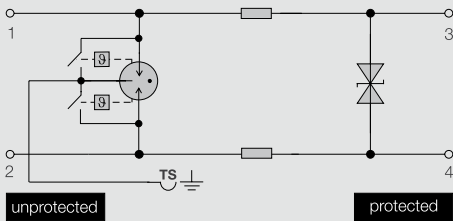
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VARITECTOR SSC

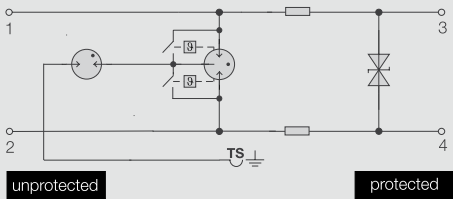
VARITECTOR SSC CL and CL FG

Two-stage surge protection with screw connection for instrumentation, control and automation technology

- Surge protection in terminal-block format
- Modular width of just 6.2 mm
- Space-saving design: 1 analog signal
- Torx slotted screw connection
- Version with non-earthed PE connection for avoiding potential differences
- Usable in accordance with installations standard IEC 62305
- Integrated PE contact in base element, safely discharges up to 20 kA (8/20 μ s) and 2.5 kA (10/350 μ s) to PE



VSSC4 CL



VSSC4 CL FG

Technical Data

General data

Nominal current I_N at 25 °C	500 mA
Rated discharge current $I_{8/20}$ (8 / 20 μ s) wire-wire / wire-PE / GND-PE	2.5 kA / 2.5 kA / -
Rated discharge current $I_{10/350}$ (10 / 350 μ s) wire-wire / wire-PE / GND-PE	5 kA / 5 kA / -
Response time wire-wire / wire-PE / GND-PE	≤ 1 ns / ≤ 100 ns / -
Volume resistivity per path	1.8 $\Omega \pm 10\%$
Discharge current I_{cat}	10 kA
Rated discharge current I_{imp} (10 / 350 μ s)	1 kA
Surge strength	4 kV / 2 kA, 10 repetitions
Max. continuous voltage	1 A / 1 s, 5 repetitions
Overstressed fault mode	Mode 2
Requirement category acc. to IEC 61643-21	C1; C2; C3; D1
Rel. humidity	5%...96% RH
Degree of protection	IP20
Ambient temperature (operational)	-40 °C...+70 °C
Storage temperature	-40 °C...+80 °C
Approvals	UL, CSA pending

Clampable conductor

Connection	Torx screw (T15) / slot (0.8 x 4.0)
Stripping length	7 mm
Tightening torque range	0.5 ... 0.8 Nm
Solid / stranded	0.5 ... 6 mm ² / 0.5 ... 4 mm ²
Flexible / flexible with ferrule	0.5 ... 2.5 mm ²

Approvals

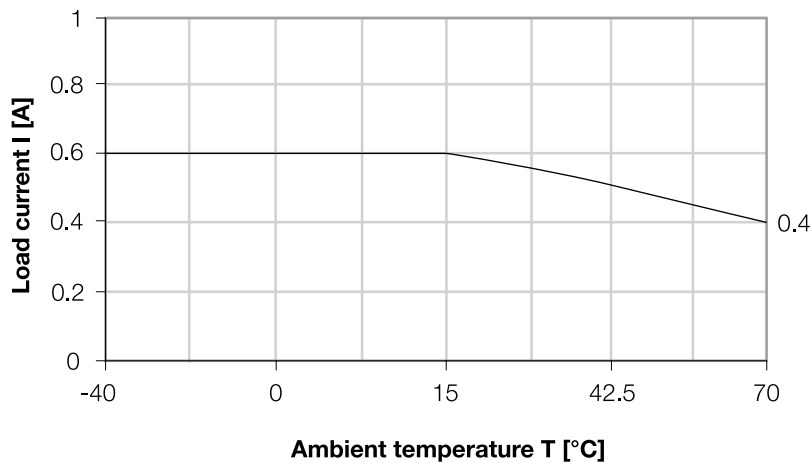
UL Listed (USL). Assessed to UL497B. File ref. E 311081

Dimensions

Length x width x height	76 x 6.2 x 58.5 mm
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Note: end plate AP VSSC4: 1063120000

Applications



VARITECTOR SSC CL and CL FG

Ordering Data

Rated voltage U_n	
Max. continuous voltage U_c	
Voltage GND-PE	
Capacitance	
Gas discharge tube	
Suppressor diode	
Limiting frequency (-3 dB) at load resistance	
Protection level at	
I_n wire-wire / wire-PE / GND-PE	
1 kV / μ s wire-wire / wire-PE / GND-PE	

Ordering data

Type	
Part No.	
Qty.	

Note

VSSC4 CL 12 V DC 0.5 A

12 V DC
15 V DC
-
4 nF
90 V
16 V
250 kHz
35 V / 600 V / -
30 V / 600 V / -

VSSC4 CL 12VDC 0.5A
1063720000
10 piece

VSSC4 CL FG 12 V DC 0.5 A

12 V DC
15 V DC
> 500 V
4 nF
90 V
16 V
250 kHz
35 V / 1500 V / -
30 V / 1500 V / -

VSSC4 CL FG 12VDC 0.5A
1063760000
10 piece

VSSC4 CL 24 V UC 0.5 A

24 V AC / 34 V DC
30 V AC / 42 V DC
-
650 pF
90 V
43V
1.5 MHz
90 V / 600 V / -
70 V / 600 V / -

VSSC4 CL 24VUC 0.5A
1063730000
10 piece

Ordering Data

Rated voltage U_n	
Max. continuous voltage U_c	
Voltage GND-PE	
Capacitance	
Gas discharge tube	
Suppressor diode	
Limiting frequency (-3 dB) at load resistance	
Protection level at	
I_n wire-wire / wire-PE / GND-PE	
1 kV / μ s wire-wire / wire-PE / GND-PE	

Ordering data

Type	
Part No.	
Qty.	

Note

VSSC4 CL FG 24 V UC 0.5 A

24 V AC / 34 V DC
30 V AC / 42 V DC
> 500 V
650 pF
90 V
43V
1.5 MHz
90 V / 1500 V / -
70 V / 1500 V / -

VSSC4 CL FG 24VUC 0.5A
1063770000
10 piece

VSSC4 CL 48 V UC 0.5 A

48 V AC / 68 V DC
60 V AC / 85 V DC
-
450 pF
150 V
91 V
2.2 MHz
200 V / 600 V / -
150 V / 600 V / -

VSSC4 CL 48VUC 0.5A
1063740000
10 piece

VSSC4 CL FG 48 V UC 0.5 A

48 V AC / 68 V DC
60 V AC / 85 V DC
> 500 V
450 pF
150 V
91 V
2.2 MHz
200 V / 1500 V / -
150 V / 1500 V / -

VSSC4 CL FG 48VUC 0.5A
1063780000
10 piece

Ordering Data

Rated voltage U_n	
Max. continuous voltage U_c	
Voltage GND-PE	
Capacitance	
Gas discharge tube	
Suppressor diode	
Limiting frequency (-3 dB) at load resistance	
Protection level at	
I_n wire-wire / wire-PE / GND-PE	
1 kV / μ s wire-wire / wire-PE / GND-PE	

Ordering data

Type	
Part No.	
Qty.	

Note

VSSC4 CL 60 V UC 0.5 A

60 V AC / 85 V DC
75 V AC / 106 V DC
-
350 pF
230 V
120 V
2.8 MHz
260 V / 600 V / -
200 V / 600 V / -

VSSC4 CL 60VUC 0.5A
1063750000
10 piece

VSSC4 CL FG 60 V UC 0.5 A

60 V AC / 85 V DC
75 V AC / 106 V DC
> 500 V
350 pF
150 V
120 V
2.8 MHz
260 V / 1500 V / -
200 V / 1500 V / -

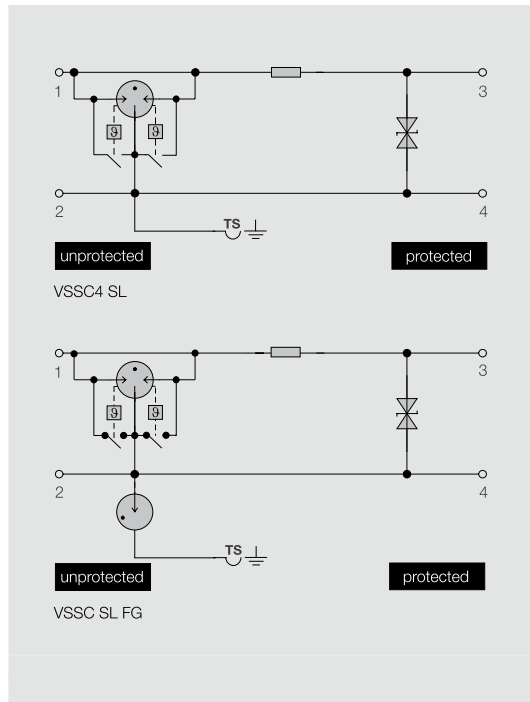
VSSC4 CL FG 60VUC 0.5A
1063790000
10 piece

VARITECTOR SSC

VARITECTOR SSC SL and SL FG

Two-stage surge protection with screw connection for instrumentation, control and automation technology

- Surge protection in terminal-block format
- Modular width of just 6.2 mm
- Space-saving design: 1 binary signal
- Torx slotted screw connection
- Version with non-earthed PE connection for avoiding potential differences
- Usable in accordance with installations standard IEC 62305
- Integrated PE contact in base element, safely discharges up to 20 kA (8/20 μ s) and 2.5 kA (10/350 μ s) to PE



Technical Data

General data

Nominal current I_N at 25 °C	500 mA
Rated discharge current $I_{8/20}$ (8 / 20 μ s) wire-wire / wire-PE / GND-PE	- / 2.5 kA / -
Rated discharge current $I_{10/350}$ (10 / 350 μ s) wire-wire / wire-PE / GND-PE	- / 10 kA / -
Response time wire-wire / wire-PE / GND-PE	- / ≤ 2 ns / ≤ 100 ns
Volume resistivity per path	1.8 $\Omega \pm 10\%$
Discharge current I_{cat}	10 kA
Rated discharge current I_{imp} (10 / 350 μ s)	1 kA
Surge strength	4 kV / 2 kA, 10 repetitions
Max. continuous voltage	1 A / 1 s, 5 repetitions
Overstressed fault mode	Mode 2
Requirement category acc. to IEC 61643-21	C1; C2; C3; D1
Rel. humidity	5%...96% RH
Degree of protection	IP20
Ambient temperature (operational)	-40 °C...+70 °C
Storage temperature	-40 °C...+80 °C
Approvals	UL, CSA pending

Clampable conductor

Connection	Torx screw (T15) / slot (0.8 x 4.0)
Stripping length	7 mm
Tightening torque range	0.5 ... 0.8 Nm
Solid / stranded	0.5 ... 6 mm ² / 0.5 ... 4 mm ²
Flexible / flexible with ferrule	0.5 ... 2.5 mm ²

Approvals

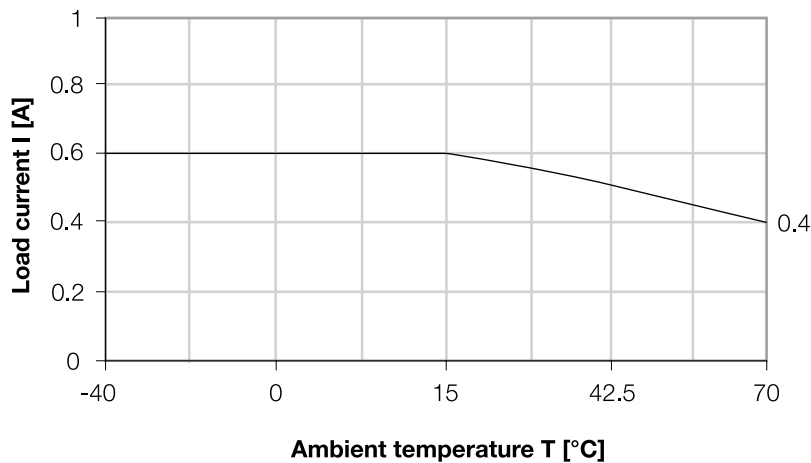
UL Listed (USL). Assessed to UL497B. File ref. E 311081

Dimensions

Length x width x height	76 x 6.2 x 58.5 mm
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Note: end plate AP VSSC4: 1063120000

Applications



VARITECTOR SSC SL and SL FG

Ordering Data

Rated voltage U_n	
Max. continuous voltage U_c	
Voltage GND-PE	
Capacitance	
Gas discharge tube	
Suppressor diode	
Limiting frequency (-3 dB) at load resistance	
Protection level at	
I_n wire-wire / wire-PE / GND-PE	
1 kV / μ s wire-wire / wire-PE / GND-PE	

Ordering data

Type	
Part No.	
Qty.	

Note

VSSC4 SL 12 V DC 0.5 A

12 V DC
15 V DC
-
4 nF
90 V
16 V
250 KHz
- / 35 V / -
- / 30 V / -

VSSC4 SL 12VDC 0.5A
1063830000
10 piece

VSSC4 SL FG 12 V DC 0.5 A

12 V DC
15 V DC
> 500 V
4 nF
90 V
16 V
250 KHz
- / 35 V / 1400 V
- / 30 V / 1400 V

VSSC4 SL FG 12VDC 0.5A
1063880000
10 piece

VSSC4 SL 24 V UC 0.5 A

24 V AC / 34 V DC
30 V AC / 42 V DC
-
650 pF
90 V
43 V
1.5 MHz
- / 90 V / -
- / 70 V / -

VSSC4 SL 24VUC 0.5A
1063840000
10 piece

Ordering Data

Rated voltage U_n	
Max. continuous voltage U_c	
Voltage GND-PE	
Capacitance	
Gas discharge tube	
Suppressor diode	
Limiting frequency (-3 dB) at load resistance	
Protection level at	
I_n wire-wire / wire-PE / GND-PE	
1 kV / μ s wire-wire / wire-PE / GND-PE	

Ordering data

Type	
Part No.	
Qty.	

Note

VSSC4 SL FG 24 V UC 0.5 A

24 V AC / 34 V DC
30 V AC / 42 V DC
> 500 V
650 pF
90 V
43 V
1.5 MHz
- / 90 V / 1400 V
- / 70 V / 1400 V

VSSC4 SL FG 24VUC 0.5A
1063890000
10 piece

VSSC4 SL 48 V UC 0.5 A

48 V AC / 68 V DC
60 V AC / 85 V DC
-
450 pF
150 V
91 V
2.2 MHz
- / 200 V / -
- / 150 V / -

VSSC4 SL 48VUC 0.5A
1063860000
10 piece

VSSC4 SL FG 48 V UC 0.5 A

48 V AC / 68 V DC
60 V AC / 85 V DC
> 500 V
450 pF
150 V
91 V
2.2 MHz
- / 200 V / 1200 V
- / 150 V / 1200 V

VSSC4 SL FG 48VUC 0.5A
1063910000
10 piece

Ordering Data

Rated voltage U_n	
Max. continuous voltage U_c	
Voltage GND-PE	
Capacitance	
Gas discharge tube	
Suppressor diode	
Limiting frequency (-3 dB) at load resistance	
Protection level at	
I_n wire-wire / wire-PE / GND-PE	
1 kV / μ s wire-wire / wire-PE / GND-PE	

Ordering data

Type	
Part No.	
Qty.	

Note

VSSC4 SL 60 V UC 0.5 A

60 V AC / 85 V DC
75 V AC / 106 V DC
-
350 pF
230 V
120 V
2.8 MHz
- / 260 V / -
- / 200 V / -

VSSC4 SL 60VUC 0.5A
1063870000
10 piece

VSSC4 SL FG 60 V UC 0.5 A

60 V AC / 85 V DC
75 V AC / 106 V DC
> 500 V
350 pF
150 V
120 V
2.8 MHz
- / 260 V / 1200 V
- / 200 V / 1200 V

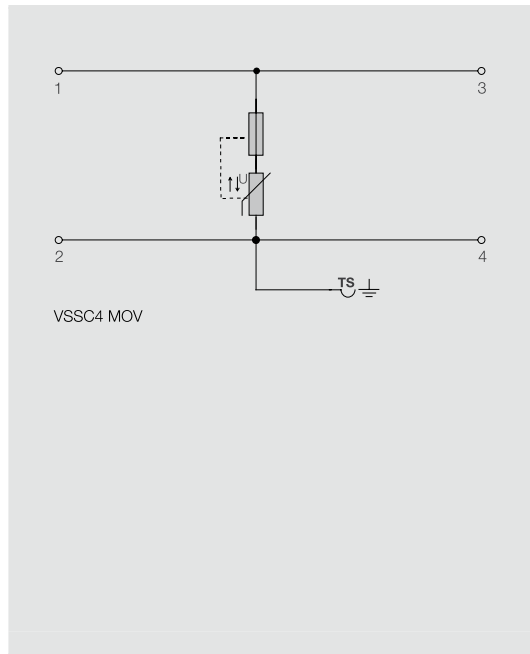
VSSC4 SL FG 60VUC 0.5A
1063920000
10 piece

VARITECTOR SSC

VSSC4 MOV – Components

Two-stage surge protection with screw connection for instrumentation, control and automation technology

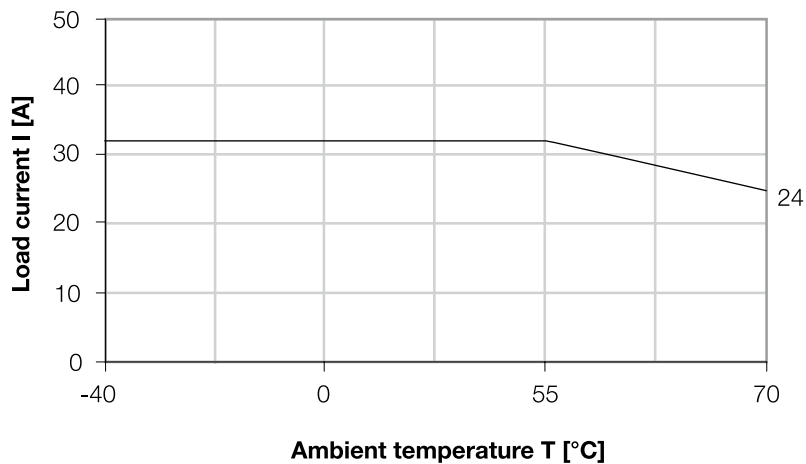
- Modular width of just 6.2 mm or 12.4 mm
- Components built-into terminal block, such as GDT, MOV, TAZ
- Torx slotted screw connection
- Integrated PE contact in base element, safely discharges up to 20 kA (8/20 μ s) and 2.5 kA (10/350 μ s) to PE
- Accessories: end plate and extension frame



Technical Data

General data	
Nominal current I_n at 25 °C	20 A
Response time wire-wire / wire-PE / GND-PE	- / 25 ns / -
Volume resistivity per path	< 0.1 Ω
Surge strength	1 kV / 100 A (10 / 1000 μ s), 30 repetitions
Max. continuous voltage	0.25 A / 1 s, 5 repetitions
Combined pulse U_{oc}	5 kV
Overstressed fault mode	Mode 1
Requirement category acc. to IEC 61643-21	C1; C2; C3
Rel. humidity	5%...96% RH
Degree of protection	IP20
Ambient temperature (operational)	-40 °C...+70 °C
Storage temperature	-40 °C...+80 °C
Approvals	UL, CSA pending
Clampable conductor	
Connection	Torx screw (T15) / slot (0.8 x 4.0)
Stripping length	7 mm
Tightening torque range	0.5 ... 0.8 Nm
Solid / stranded	0.5 ... 6 mm ² / 0.5 ... 4 mm ²
Flexible / flexible with ferrule	0.5 ... 2.5 mm ²
Approvals	
UL Listed (USL). Assessed to UL497B. File ref. E 311081	
Note: end plate AP VSSC4: 1063120000	

Applications



VSSC4 MOV – Components

Ordering Data

	VSSC4 MOV 12 V DC	VSSC4 MOV 24 V UC	VSSC4 MOV 48 V UC	VSSC4 MOV 60 V UC
Rated voltage U_N	12 V DC	24 V AC / 34 V DC	48 V AC / 68 V DC	60 V AC / 85 V DC
Max. continuous voltage U_c	15 V DC	30 V AC / 42 V DC	60 V AC / 85 V DC	75 V AC / 106 V DC
Voltage GND-PE	-	-	-	-
Capacitance	12 nF	5 nF	1650 pF	1370 pF
Varistor	18 V	47 V	100 V	120 V
Limiting frequency (-3 dB) at load resistance	80 kHz	200 kHz	600 kHz	700 kHz
Rated discharge current I_N (8/20 μ s) wire-wire / wire-PE / GND-PE	- / 500 A / -	- / 500 A / -	- / 2 kA / -	- / 2 kA / -
Rated discharge current I_{max} (8/20 μ s) wire-wire / wire-PE / GND-PE	- / 1 kA / -	- / 1 kA / -	- / 4,5 kA / -	- / 4,5 kA / -
Discharge current I_{test}	1 kA	1 kA	4,5 kA	4,5 kA
Protection level at I_N wire-wire / wire-PE / GND-PE	- / 65 V / -	- / 180 V / -	- / 270 V / -	- / 320 V / -
1 kV / μ s wire-wire / wire-PE / GND-PE	- / 50 V / -	- / 150 V / -	- / 200 V / -	- / 250 V / -
Dimensions				
Length x width x height	76 x 6,2 x 58,5 mm	76 x 6,2 x 58,5 mm	76 x 6,2 x 58,5 mm	76 x 6,2 x 58,5 mm
Ordering data				
Type	VSSC4 MOV 12VDC	VSSC4 MOV 24VUC	VSSC4 MOV 48VUC	VSSC4 MOV 60VUC
Part No.	1063950000	1063960000	1063970000	1063980000
Qty.	10 piece	10 piece	10 piece	10 piece
Note				

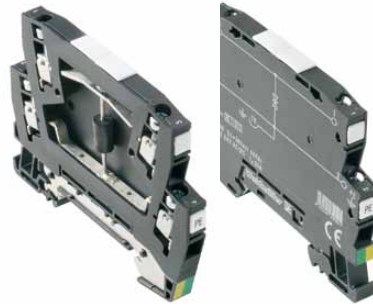
Ordering Data

	VSSC4 MOV 120 V UC	VSSC4 MOV 150 V UC	VSSC4 MOV 240 V UC
Rated voltage U_N	120 V AC / 170 V DC	150 V AC / 212 V DC	120 V AC / 170 V DC
Max. continuous voltage U_c	150 V AC / 212 V DC	188 V AC / 266 V DC	150 V AC / 212 V DC
Voltage GND-PE	-	-	-
Capacitance	2 nF	1,5 nF	2 nF
Varistor	240 V	300 V	240 V
Limiting frequency (-3 dB) at load resistance	500 kHz	650 kHz	500 kHz
Rated discharge current I_N (8/20 μ s) wire-wire / wire-PE / GND-PE	- / 7,5 kA / -	- / 7,5 kA / -	- / 7,5 kA / -
Rated discharge current I_{max} (8/20 μ s) wire-wire / wire-PE / GND-PE	- / 15 kA / -	- / 15 kA / -	- / 15 kA / -
Discharge current I_{test}	15 kA	15 kA	15 kA
Protection level at I_N wire-wire / wire-PE / GND-PE	- / 720 V / -	- / 900 V / -	- / 720 V / -
1 kV / μ s wire-wire / wire-PE / GND-PE	- / 500 V / -	- / 600 V / -	- / 500 V / -
Dimensions			
Length x width x height	76 x 12,4 x 58,5 mm	76 x 12,4 x 58,5 mm	76 x 12,4 x 58,5 mm
Ordering data			
Type	VSSC4 MOV 120VUC	VSSC4 MOV 150VUC	VSSC4 MOV 240VUC
Part No.	1063990000	1064010000	1064020000
Qty.	10 piece	10 piece	10 piece
Note			

VSSC4 TAZ – Components

Single stage surge protection with screw connection for instrumentation, control and automation technology

- Modular width of just 6.2 mm or 12.4 mm
- Components built-into terminal block, such as GDT, MOV, TAZ
- Torx slotted screw connection
- Integrated PE contact in base element, safely discharges up to 20 kA (8/20 μ s) and 2.5 kA (10/350 μ s) to PE
- Accessories: end plate and extension frame



VSSC4 TAZ

Technical Data

General data

Nominal current I_n at 25 °C	20 A
Volume resistivity per path	< 0.1 Ω
Overstressed fault mode	Mode 2
Rel. humidity	5%...96% RH
Degree of protection	IP20
Ambient temperature (operational)	-40 °C...+70 °C
Storage temperature	-40 °C...+80 °C
Approvals	UL, CSA

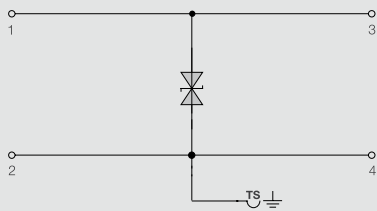
Clampable conductor

Connection	Torx screw (T15) / slot (0.8 x 4.0)
Stripping length	7 mm
Tightening torque range	0.5 ... 0.8 Nm
Solid / stranded	0.5 ... 6 mm ² / 0.5 ... 4 mm ²
Flexible / flexible with ferrule	0.5 ... 2.5 mm ²

Approvals

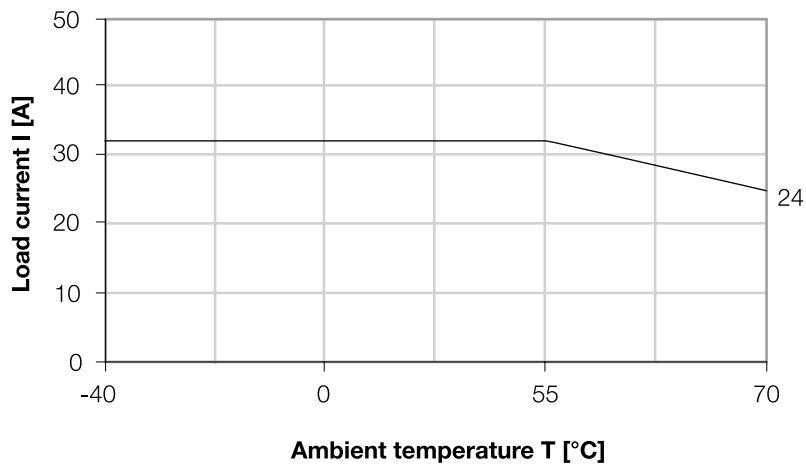
UL Listed (USL). Assessed to UL497B. File ref. E 311081

Note: end plate AP VSSC4: 1063120000



VSSC4 TAZ

Applications



VSSC4 TAZ – Components
Ordering Data

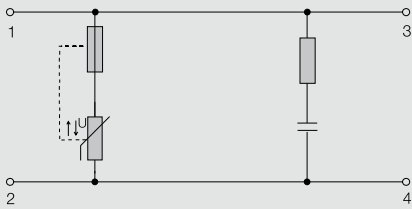
	VSSC4 TAZ 24 V UC	VSSC4 TAZ 48 V UC
Rated voltage U_N	24 V AC / 34 V DC	48 V AC / 75 V DC
Max. continuous voltage U_C	30 V AC / 42 V DC	60 V AC / 85 V DC
Alternating-current strength	0.1 A / 1 s, 5 repetitions	0.1 A / 1 s, 5 repetitions
Surge strength	10 A (10 / 1000 μ s), 300 repetitions	5 A (10 / 1000 μ s), 300 repetitions
Capacitance	650 pF	450 pF
Requirement category acc. to IEC 61643-21	C1; C2; C3	C1; C2; C3
Gas discharge tube		
Supressordiode	51 V	100 V
Limiting frequency (-3 dB) at load resistance	1.5 MHz	2.2 MHz
Rated discharge current I_N (8/20 μ s)		
wire-wire / wire-PE / GND-PE	- / 100 A / -	- / 50 A / -
Rated discharge current I_{max} (8/20 μ s)		
wire-wire / wire-PE / GND-PE	- / 200 A / -	- / 100 A / -
Discharge current I_{total}	200 A	100 A
Protection level at		
I_N wire-wire / wire-PE / GND-PE	- / 90 V / -	- / 200 V / -
1 kV / μ s wire-wire / wire-PE / GND-PE	- / 70 V / -	- / 150 V / -
Response time wire-wire / wire-PE / GND-PE	- / 2 ns / -	- / 2 ns / -
Rated discharge current I_{mp} (10/350 μ s)		
Dimensions		
Length x width x height	76 x 6.2 x 58.5 mm	76 x 6.2 x 58.5 mm
Ordering data		
Type	VSSC4 TAZ 24VUC	VSSC4 TAZ 48VUC
Part No.	1064080000	1064090000
Qty.	10 piece	10 piece
Note		

VARITECTOR SSC

VSSC4 RC – Components

Two-stage surge protection with screw connection for instrumentation, control and automation technology

- Modular width of 12.4 mm
- Torx slotted screw connection
- Integrated PE contact in base element, safely discharges up to 20 kA (8/20 μ s) and 2.5 kA (10/350 μ s) to PE
- Accessories: end plate and extension frame



VSSC4 RC

Technical Data

General data

Nominal current I_n at 25 °C	20 A
Response time wire-wire / wire-PE / GND-PE	- / 25 ns / -
Volume resistivity per path	< 0.1 Ω
Surge strength	1 kV / 100A (10 / 1000 μ s), 30 repetitions
Max. continuous voltage	0.25 A / 1 s, 5 repetitions
Overstressed fault mode	Mode 1
Requirement category acc. to IEC 61643-21	C1
Capacitance	220 nF
Limiting frequency (-3 dB) at load resistance	4 kHz
Rel. humidity	5%...96% RH
Degree of protection	IP20
Ambient temperature (operational)	-40 °C...+70 °C
Storage temperature	-40 °C...+80 °C
Approvals	UL, CSA

Clampable conductor

Connection	Torx screw (T15) / slot (0,8 x 4,0)
Stripping length	7 mm
Tightening torque range	0.5 ... 0.8 Nm
Solid / stranded	0.5 ... 6 mm ² / 0.5 ... 4 mm ²
Flexible / flexible with ferrule	0.5 ... 2.5 mm ²

Approvals

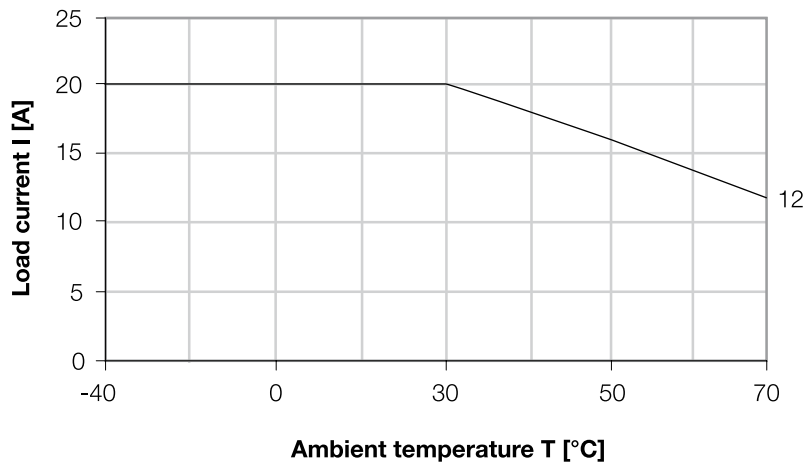
UL Listed (USL). Assessed to UL497B. File ref. E 311081

Dimensions

Length x width x height 76 x 12.4 x 58.5 mm

Note: end plate AP VSSC4: 1063120000

Applications



VSSC4 RC – Components

Ordering Data

	VSSC4 RC 24 V UC	VSSC4 RC 240 V UC
Rated voltage U_N	24 V AC	240 V AC
Max. continuous voltage U_c	30 V AC / 42 V DC	275 V AC / 388 V DC
Voltage GND-PE	-	-
Alternating-current strength	0.25 A / 1 s, 30 repetitions	0.1 A / 1 s, 5 repetitions
Varistor	43 V	430 V
Surge strength C1	0.25 kA / 8/20 μ s 0.5 kV / 1.2/50 μ s	0.25 kA / 8/20 μ s 0.5 kV / 1.2/50 μ s
Protection level U_p	< 500 V	< 500 V
Rated discharge current I_N (8/20 μ s) wire-wire / wire-PE / GND-PE	- / 500 A / -	- / 1 kA / -
Rated discharge current I_{max} (8/20 μ s) wire-wire / wire-PE / GND-PE	- / 1 kA / -	- / 2.5 kA / -
Discharge current I_{total} I_N wire-wire / wire-PE / GND-PE	1 kA - / 150 V / -	2.5 kA - / 1500 V / -
Protection level at 1 kV / μ s wire-wire / wire-PE / GND-PE	- / 120 V / -	- / 500 V / -
Ordering data		
Type	VSSC4 RC 24VUC	VSSC4 RC 240VUC
Part No.	1064120000	1064130000
Qty.	5 piece	5 piece
Note		