

VAL-MS-1-50-275-A - Type 2 surge arrester



1105740

<https://www.phoenixcontact.com/au/products/1105740>

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



Surge protective device consisting of base element with FM contact and protective plug with high-capacity varistor, for mounting on NS 35/7,5, nominal voltage: 240 V AC, 1-channel

Your advantages

- Quality proven millions of times over in the widest range of applications
- Rapid installation with bridges, thanks to industry-standard overall width of 1 HP
- Easy testing and insulation measurement, thanks to pluggable protection modules
- Wide range of applications due to various nominal voltages
- High degree of modularity provides individual solutions for every application

Commercial data

Item number	1105740
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	CL1321
Product key	CL1321
GTIN	4055626990101
Weight per piece (including packing)	146.8 g
Weight per piece (excluding packing)	106.35 g
Customs tariff number	85363030
Country of origin	DE

VAL-MS-1-50-275-A - Type 2 surge arrester



1105740

<https://www.phoenixcontact.com/au/products/1105740>

Technical data

Notes

General

Note	SPD according to AS/NZS 1768 Cat C, B
------	---------------------------------------

Product properties

Product type	Surge arrester
Product family	VALVETRAB MS
IEC test classification	II
	T2
EN type	T2
IEC power supply system	TN-C
Type	Base element, DIN rail mounting
Number of positions	1
Surge protection fault message	Optical, remote indicator contact

Insulation characteristics

Overvoltage category	III
Pollution degree	2

Electrical properties

Nominal frequency f_N	50 Hz (60 Hz)
-------------------------	---------------

Indicator/remote signaling

Connection name	Remote fault indicator contact
Switching function	Changeover contact
Operating voltage	5 V AC ... 250 V AC
	30 V DC
Operating current	5 mA AC ... 1 A AC
	1 A DC

Connection data

Connection method	Screw connection
Screw thread	M5
Tightening torque	3 Nm (1.5 mm ² ... 16 mm ²)
	4.5 Nm (25 mm ² ... 35 mm ²)
Stripping length	16 mm
Conductor cross section flexible	1.5 mm ² ... 25 mm ²
Conductor cross section rigid	1.5 mm ² ... 35 mm ²
Conductor cross section AWG	15 ... 2
Connection method	Fork-type cable lug
Conductor cross section flexible	1.5 mm ² ... 16 mm ²

VAL-MS-1-50-275-A - Type 2 surge arrester



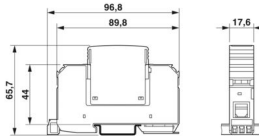
1105740

<https://www.phoenixcontact.com/au/products/1105740>

Remote fault indicator contact

Connection method	Plug-in/screw connection via COMBICON
Screw thread	M2
Tightening torque	0.25 Nm
Stripping length	7 mm
Conductor cross section flexible	0.14 mm ² ... 1.5 mm ²
Conductor cross section rigid	0.14 mm ² ... 1.5 mm ²
Conductor cross section AWG	28 ... 16

Dimensions

Dimensional drawing	
Width	17.6 mm
Height	96.8 mm
Depth	65.7 mm (incl. DIN rail 7.5 mm)
Horizontal pitch	1 Div.

Material specifications

Color	black (RAL 9005)
Flammability rating according to UL 94	V-0
CTI value of material	600
Insulating material	PA 6.6
Material group	I
Housing material	PA 6.6

Protective circuit

Mode of protection	L-PEN
Direction of action	1L-N/PE
Nominal voltage U_N	240/415 V AC (TN-C)
Nominal frequency f_N	50 Hz (60 Hz)
Maximum continuous voltage U_C	275 V AC
Rated load current I_L	80 A
Protective conductor current I_{PE}	≤ 0.45 mA
Standby power consumption P_C	≤ 150 mVA
Nominal discharge current I_n (8/20) μ s	20 kA
Maximum discharge current I_{max} (8/20) μ s	50 kA (one impulse)
Short-circuit current rating I_{SCCR}	25 kA
Voltage protection level U_p	≤ 1.5 kV
Residual voltage U_{res}	≤ 1.5 kV (at I_n) ≤ 1.3 kV (at 10 kA) ≤ 1.2 kV (at 5 kA)

VAL-MS-1-50-275-A - Type 2 surge arrester



1105740

<https://www.phoenixcontact.com/au/products/1105740>

	≤ 1.1 kV (at 3 kA)
TOV behavior at U_T	415 V AC (5 s / withstand mode)
	440 V AC (120 min / safe failure mode)
Response time t_A	≤ 25 ns
Max. backup fuse with V-type through wiring	80 A (gG)
Max. backup fuse with branch wiring	125 A (gG)

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20 (only when all terminal points are used)
Ambient temperature (operation)	-40 °C ... 80 °C
Ambient temperature (storage/transport)	-40 °C ... 80 °C
Altitude	≤ 2000 m (amsl)
Permissible humidity (operation)	5 % ... 95 %
Shock (operation)	25g (Half-sine / 11 ms / 3x $\pm X$, $\pm Y$, $\pm Z$)
Vibration (operation)	5g (10 ... 500 Hz / 2.5 h / X, Y, Z)

Standards and regulations

Standards/specifications	IEC 61643-11
Note	2011
Standards/specifications	EN 61643-11
Note	2012

Mounting

Mounting type	DIN rail: 35 mm
---------------	-----------------

VAL-MS-1-50-275-A - Type 2 surge arrester

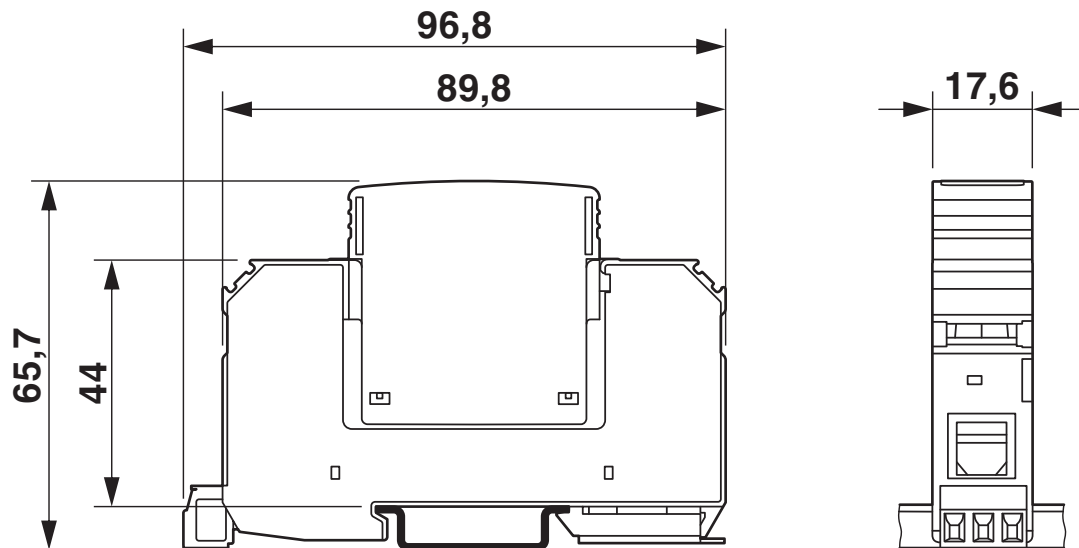
1105740

<https://www.phoenixcontact.com/au/products/1105740>

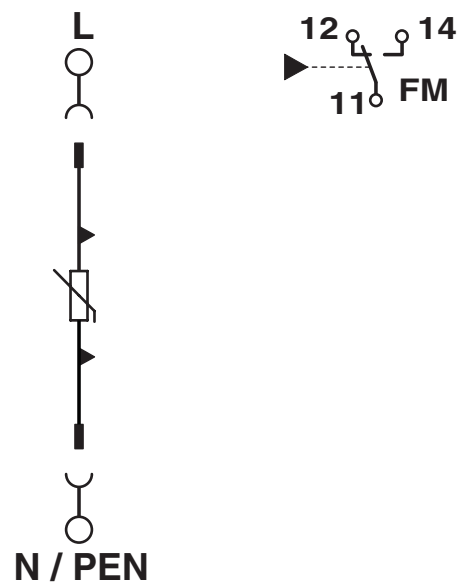


Drawings

Dimensional drawing



Circuit diagram



VAL-MS-1-50-275-A - Type 2 surge arrester



1105740

<https://www.phoenixcontact.com/au/products/1105740>

Classifications

ECLASS

ECLASS-13.0	27171202
-------------	----------

ETIM

ETIM 9.0	EC000941
----------	----------

UNSPSC

UNSPSC 21.0	39121620
-------------	----------

VAL-MS-1-50-275-A - Type 2 surge arrester



1105740

<https://www.phoenixcontact.com/au/products/1105740>

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Not applicable, Not qualified for the European market
---	---

China RoHS

Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits

EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%
-------------------------------------	----------------------------

Phoenix Contact 2025 © - all rights reserved
<https://www.phoenixcontact.com>

PHOENIX CONTACT PTY Ltd
Unit 7, 2-8 South Street
Rydalmere NSW 2116
1300 786 411
customerservice@phoenixcontact.com.au