

VAL-MS 75X350/3EQ/FM - Type 2 surge protection device



2905251

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Equalizer surge protective device, 3-mode, type 2 arresters for 2-wire signals up to 75 V with form-C field monitor contact

Your advantages

- Versions with and without floating remote indication contact
- 3-Mode equalizer protection
- Mechanical coding of all slots
- Optical, mechanical status indication for the individual arresters
- Type 2 consistent plug-in surge arresters

Commercial data

Item number	2905251
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	CL18
Product key	CL1321
GTIN	4046356958554
Weight per piece (including packing)	222.222 g
Weight per piece (excluding packing)	222.222 g
Customs tariff number	85363010
Country of origin	DE

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Technical data

Notes

General

Note	For installation into a touch protected cabinet. For applications with $U_C > 500$ V distances at the side and distances at the connection area must be minimum of 5 mm between different active parts including earthed parts.
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Trade restriction

CE note	The products are offered exclusively for export outside the EU and the European Economic Area.
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Product properties

Product type	Surge arrester
Product family	VALVETRAB MS
IEC test classification	II T2
Type	DIN rail module, two-section, divisible
Number of positions	3
Surge protection fault message	Optical, remote indicator contact

Data management status

Article revision	04
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Insulation characteristics

Pollution degree	2
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Electrical properties

Nominal frequency f_N	50 Hz (60 Hz)
Nominal voltage U_N	48 V AC/DC 5 V AC ... 48 V AC

Indicator/remote signaling

Connection name	Remote fault indicator contact
Switching function	Changeover contact, 1-pos.
Maximum operating voltage U_{max} AC	250 V AC
Maximum operating voltage U_{max} DC	30 V DC
Max. operating current I_{max}	1.5 A AC (250 V AC) 1.5 A DC (125 V AC) 1.5 A DC (30 V DC)
Operating voltage	5 V AC ... 250 V AC 125 V AC (UL) 30 V DC
Operating current	5 mA AC ... 1.5 A 1 A (UL)

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1 A

Connection data

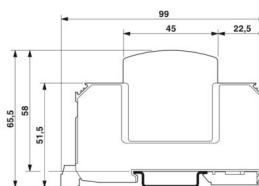
Connection method	Screw connection
Screw thread	M5
Tightening torque	26.5 lb _F -in. ... 30 lb _F -in. (UL)
Stripping length	16 mm
Conductor cross section flexible min.	1.5 mm ²
Conductor cross section flexible max.	25 mm ²
Conductor cross section, rigid min.	1.5 mm ²
Conductor cross section, rigid max.	35 mm ²
Conductor cross section AWG	14 ... 2 (UL)

Remote fault indicator contact

Connection method	MC 1,5/3
Screw thread	M2
Tightening torque, min	0.25 Nm
Tightening torque	4 lb _F -in. (UL)
Stripping length	7 mm
Conductor cross section flexible min.	0.14 mm ²
Conductor cross section flexible max.	1.5 mm ²
Conductor cross section, rigid min.	0.14 mm ²
Conductor cross section, rigid max.	1.5 mm ²
Conductor cross section AWG	30 ... 14 (UL)

Dimensions

Dimensional drawing



Width	53.4 mm
Height	99 mm
Depth	65.5 mm
Horizontal pitch	3 Div.

Material specifications

Color	black (RAL 9005)
Flammability rating according to UL 94	V0
Housing material	PBT/PA

Protective circuit

Direction of action	(L+)-PE & (L-)-PE & (L+)-(L-)
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Nominal voltage U_N	5 V AC ... 48 V AC
Nominal frequency f_N	50 Hz (60 Hz)
Maximum continuous voltage U_C	60 V
	60 V
Maximum continuous operating voltage U_C (L-L)	60 V
Maximum continuous operating voltage U_C (L-PE)	230 V
Rated load current I_L	80 A (Serial through wiring at 16 mm ²)
Residual current I_{PE}	≤ 5 μA
Nominal discharge current I_n (8/20) μs	10 kA
Nominal discharge current I_n (8/20) μs (L-PE)	10 kA
Maximum discharge current I_{max} (8/20) μs	20 kA
Maximum discharge current I_{max} (8/20) μs (L-N)	20 kA
Maximum discharge current I_{max} (8/20) μs (L-PE)	20 kA
Maximum discharge current I_{max} (8/20) μs (N-PE)	20 kA
Short-circuit current rating I_{SCCR}	10 kA (L-L)
	25 kA (L-PE)
Voltage protection level U_p	≤ 700 V
Voltage protection level U_p (L-L)	60 V DC
	250 V AC
Voltage protection level U_p (L-N)	≤ 1.4 kV
Voltage protection level U_p (L-PE)	≤ 1500 V
Voltage protection level U_p (N-PE)	≤ 1.5 kV
Voltage protection level U_p (L+) - (L-)	≤ 700 V
Voltage protection level U_p (L+/L-) - PE	≤ 1500 V
Response time t_A	≤ 25 ns
Max. backup fuse with V-type through wiring	80 A (gL/gG)
Max. backup fuse with branch wiring	200 A (gL/gG)

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-40 °C ... 80 °C
Permissible humidity (operation)	5 % ... 95 %
Shock (operation)	25g
Vibration (operation)	5g

Approvals

UL connection data

Conductor cross section AWG	14 ... 2
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Standards and regulations

Air clearances and creepage distances

Standards/regulations	EN 60664-1 / EN 61643-1
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Standards/specifications	IEC 61643-11
Standards/specifications	EN 61643-11

Mounting

Mounting type	DIN rail: 35 mm
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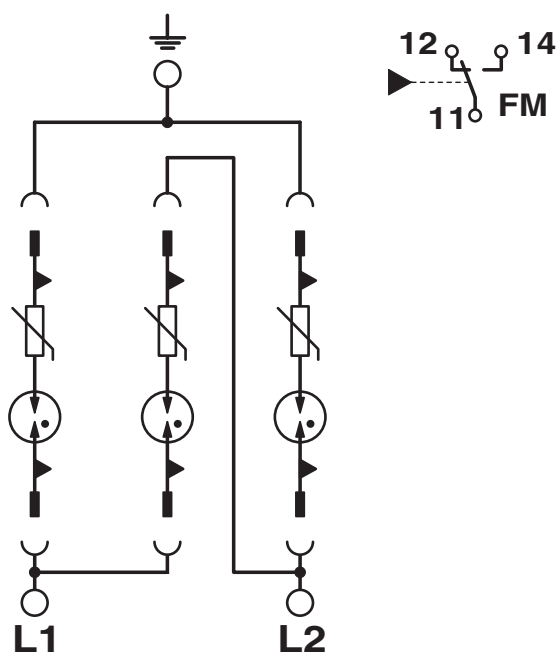
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Drawings

Circuit diagram



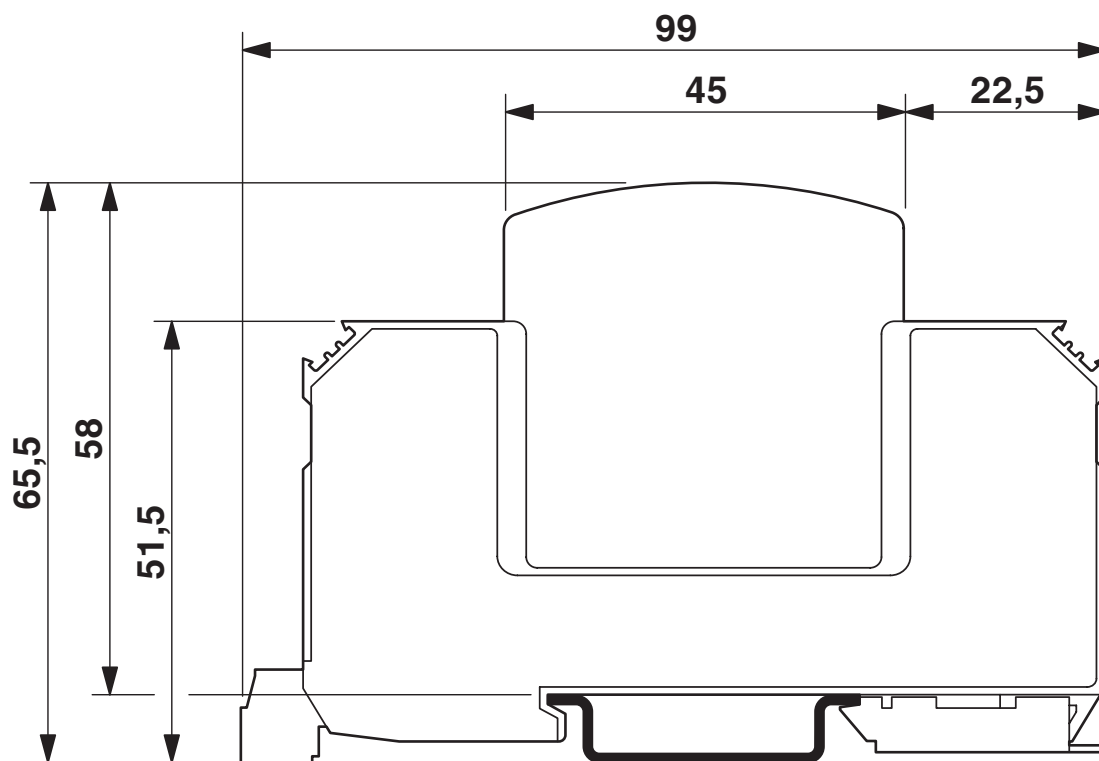
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Dimensional drawing



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Classifications

ECLASS

ECLASS-11.0	27130805
ECLASS-13.0	27171202

ETIM

ETIM 9.0	EC000941
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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%

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