

# VAL-MS TE-AR/75X350/3EQ/FM - Type 2 surge protection base element



2905684

<https://www.phoenixcontact.com/us/products/2905684>

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



## Your advantages

- With floating remote indication contact
- Field wire disconnect
- 3-Mode equalizer protection

## Commercial data

Item number	2905684
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	CL18
Product key	CL1151
GTIN	4055626025889
Weight per piece (including packing)	222.222 g
Weight per piece (excluding packing)	222.222 g
Country of origin	DE

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## Technical data

### Product properties

Product type	Surge protection for NEMA power supply units
Product family	VALVETRAB MS
IEC test classification	II T2
Type	DIN rail module, two-section, divisible and terminal block with disconnect and test point
Number of positions	3
Surge protection fault message	Optical, remote indicator contact

### Electrical properties

Nominal voltage $U_N$	48 V AC/DC
	5 V AC ... 48 V AC
Nominal current $I_N$	76 A

### 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)
	1 A

### Connection data

#### House (L0)

Connection method	Screw terminal block
Tightening torque	3 Nm ... 4.5 Nm (Ground)
	1.5 Nm ... 1.8 Nm (House)
	2.5 Nm ... 3 Nm (Field)
Conductor cross-section flexible	1.5 mm <sup>2</sup> ... 35 mm <sup>2</sup> (16 mm strip length)
	0.5 mm <sup>2</sup> ... 15 mm <sup>2</sup> (10 mm strip length)
	1.5 mm <sup>2</sup> ... 25 mm <sup>2</sup> (14 mm strip length)
	1.5 mm <sup>2</sup> ... 35 mm <sup>2</sup> (16 mm strip length)

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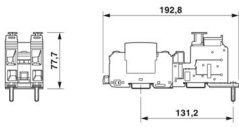
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Conductor cross-section rigid	0.5 mm <sup>2</sup> ... 15 mm <sup>2</sup> (10 mm strip length)
	1.5 mm <sup>2</sup> ... 25 mm <sup>2</sup> (14 mm strip length)
Conductor cross-section AWG	15 ... 2 (16 mm strip length)
	20 ... 6 (10 mm strip length)
	12 ... 4 (14 mm strip length)

## Remote fault indicator contact

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

## Dimensions

Dimensional drawing	
Width	54 mm
Height	193 mm
Depth	78 mm
Horizontal pitch	3 Div.

## Material specifications

Color	black (RAL 9005)
	gray (RAL 7042)
Flammability rating according to UL 94	V0
Housing material	PBT/PA

## Protective circuit

Direction of action	(L+)-PE & (L-)-PE & (L+)-(L-)
	(L+)-PE & (L-)-PE & (L+)-(L-)
Nominal voltage $U_N$	5 V AC ... 48 V AC
Maximum continuous operating 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
	230 V
Rated load current $I_L$	80 A (Serial through wiring at 16 mm <sup>2</sup> )

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Protective conductor current $I_{PE}$	$\leq 5 \mu A$
Nominal discharge current $I_n$ (8/20) $\mu s$ (L-L)	10 kA
Nominal discharge current $I_n$ (8/20) $\mu s$ (L-PE)	10 kA
Maximum discharge current $I_{max}$ (8/20) $\mu s$ (L-L)	20 kA
Maximum discharge current $I_{max}$ (8/20) $\mu s$ (L-PE)	20 kA
Short-circuit current rating $I_{SCCR}$	10 kA (L-L)
	25 kA (L-PE)
Voltage protection level $U_p$ (L-L)	$\leq 1.4$ kV
Voltage protection level $U_p$ (L-PE)	$\leq 1.5$ kV
Response time $t_A$	$\leq 25$ 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 (Only when all disconnects are closed)
	IP20
Ambient temperature (operation)	-40 °C ... 80 °C

## Standards and regulations

### Air clearances and creepage distances

Standards/regulations	EN 60664-1 / EN 61643-1
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## Mounting

Mounting type	DIN rail mounting with additional retaining screw
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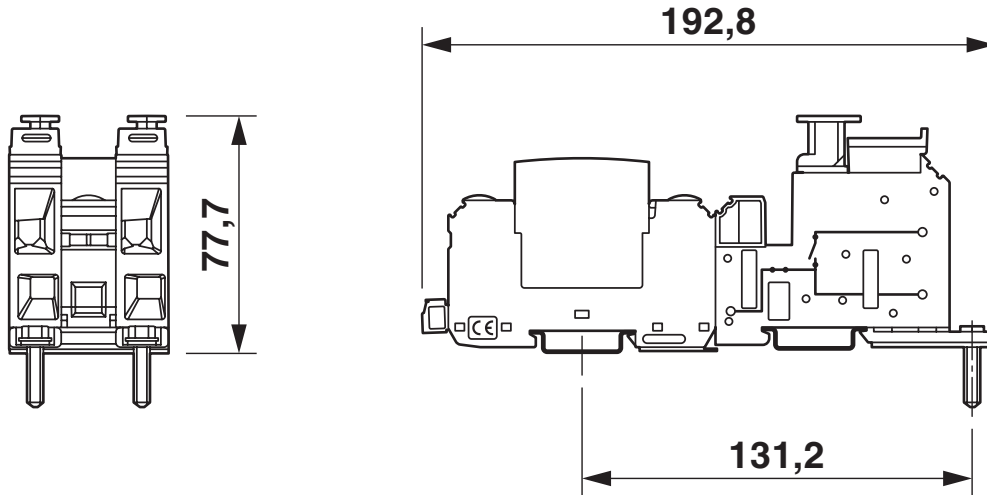
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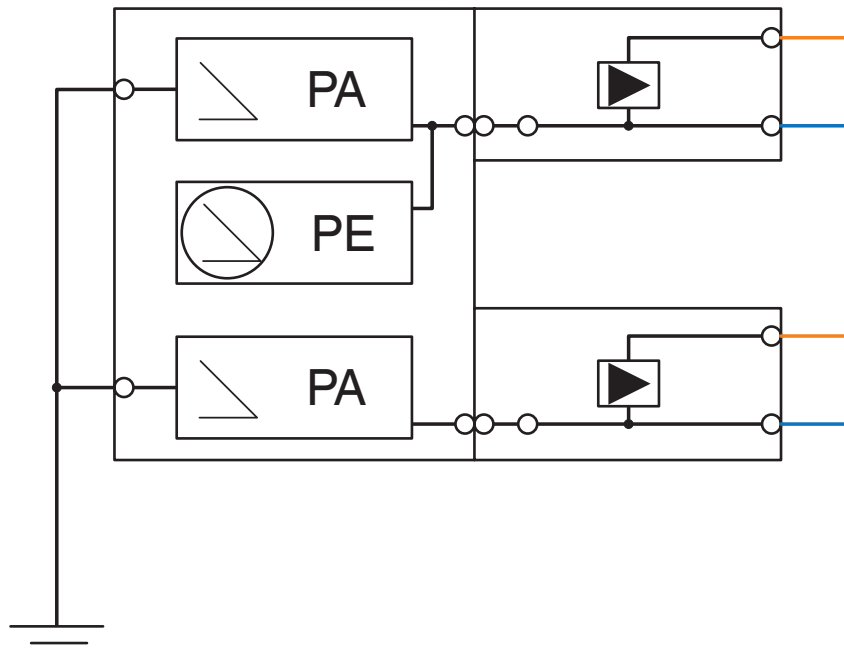
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## Drawings

Dimensional drawing



Circuit diagram



House wires shown as blue. Field wires shown as orange.

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## Classifications

### ECLASS

ECLASS-13.0	27171201
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### ETIM

ETIM 9.0	EC000381
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### UNSPSC

UNSPSC 21.0	39121620
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## Environmental product compliance

### EU RoHS

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

Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.

### EU REACH SVHC

REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)
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