

## Type 2 surge protection base element - VAL-MS TE-AR/75X350/3EQR/FM - 2906323

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Assembly with base element for type 2 arresters of the VALVETRAB MS product range, with remote indication contact and field wire disconnect. Version for 3-mode protection of 2-wire signals using 4 redundant field wires.



### Why buy this product

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

### Key Commercial Data

Packing unit	1 STK
Weight per Piece (excluding packing)	750.000 g
Custom tariff number	85363030
Country of origin	Germany

### Technical data

#### Dimensions

Height	193 mm
Width	89 mm
Depth	78 mm
Horizontal pitch	5 Div.

#### Ambient conditions

Degree of protection	IP20
	IP20 (Only when all disconnects are closed)
Ambient temperature (operation)	-40 °C ... 80 °C

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## Technical data

### General

Housing material	PBT / PA
Flammability rating according to UL 94	V0
Color	black
Standards for clearances and creepage distances	EN 60664-1
	EN 61643-1
Mounting type	DIN rail mounting with additional retaining screw
Number of positions	3
Surge protection fault message	Optical, remote indicator contact
Direction of action	(L+)-PE & (L-)-PE & (L+)-(L-)

### Protective circuit

IEC test classification	II
	T2
Nominal voltage $U_N$	5 V AC ... 48 V AC
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> )
Residual current $I_{PE}$	$\leq 5 \mu A$
Max. discharge current $I_{max}$ (8/20) $\mu s$ maximum (L-PE)	20 kA
Nominal discharge current $I_n$ (8/20) $\mu s$ (L-PE)	10 kA
Voltage protection level $U_p$ (L-PE)	$\leq 1.5$ kV
Response time $t_A$	$\leq 25$ ns
Max. backup fuse with branch wiring	200 A (gL / gG)
Max. backup fuse with V-type through wiring	80 A (gL / gG)
Short-circuit resistance $I_p$ with max. backup fuse (effective)	25 kA
	25 kA
Short-circuit current rating $I_{SCCR}$	10 kA (L-L)

### Connection, protective circuit

Connection method	Screw terminal block
Connection type IN	Screw terminal blocks
Connection type OUT	Screw terminal blocks
Tightening torque	22 lb <sub>F</sub> -in. ... 27 lb <sub>F</sub> -in. (L1)
	13 lb <sub>F</sub> -in. ... 16 lb <sub>F</sub> -in. (L0)
	27 lb <sub>F</sub> -in. ... 40 lb <sub>F</sub> -in. (PE)
Conductor cross section AWG	16 ... 4 (L1)

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### Technical data

#### Connection, protective circuit

	20 ... 6 (L0)
	15 ... 2 (PE)

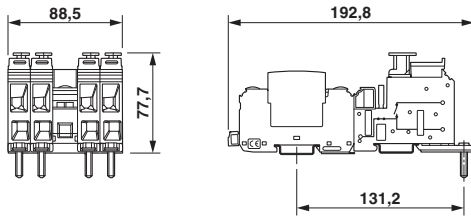
#### Remote indication contact

Connection name	Remote fault indicator contact
Switching function	PDT, 1-pos.
Connection method	MC 1,5/3
Screw thread	M2
Tightening torque	0.25 Nm
	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 solid min.	0.14 mm <sup>2</sup>
Conductor cross section solid max.	1.5 mm <sup>2</sup>
Conductor cross section AWG min.	28
Conductor cross section AWG max.	16
Maximum operating voltage U <sub>max</sub> AC	250 V AC
Maximum operating voltage U <sub>max</sub> DC	30 V DC
Max. operating current I <sub>max</sub>	1.5 A AC (250 V AC)
	1.5 A DC (125 V AC)
	1.5 A DC (30 V DC)

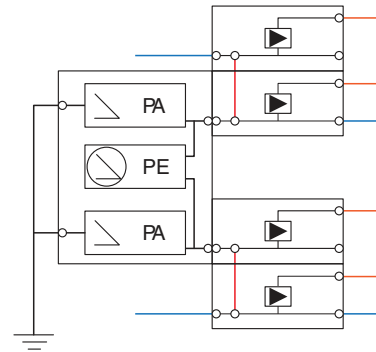
### Drawings

# Type 2 surge protection base element - VAL-MS TE-AR/75X350/3EQR/FM - 2906323

Dimensional drawing



Circuit diagram



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

## Classifications

### eCl@ss

eCl@ss 5.1	27130801
eCl@ss 6.0	27130802
eCl@ss 8.0	27130805
eCl@ss 9.0	27130805

### ETIM

ETIM 4.0	EC002497
ETIM 5.0	EC000941

## Accessories

### Accessories

#### Bridge

Plug-in bridge - FBS 2-18 - 2801068



Plug-in bridge for cross-connections in the VAL-MS BE-AR terminal center, 2-pos., color: Red

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### Accessories

Wiring bridge - MPB 18/1-57 - 2809238



Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 57-pos.

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Plug-in bridge - FBS 2-18 - 2801068



Plug-in bridge for cross-connections in the VAL-MS BE-AR terminal center, 2-pos., color: Red

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### Insertion bridge

Insertion bridge - EB 56-18 - 3009299



Insertion bridge, Pitch: 18 mm, Number of positions: 56, Color: gray

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### Screwdriver tools

Screwdriver - SZS 0,8X4,0 VDE - 1212508



Screwdriver, slot-headed, VDE insulated, size: 0.8 x 4.0 x 100 mm, 2-component grip, with non-slip grip

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### Accessories

Screwdriver - SZS 0,4X2,5 VDE - 1205037



Screwdriver, slot-headed, VDE insulated, size: 0.4 x 2.5 x 80 mm, 2-component grip, with non-slip grip

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### Spare parts

Type 2 surge protection plug - VAL-MS 75 VF ST - 2805318



Surge protection plug type 2 with series connection consisting of varistor and gas-filled spark gap for VAL-MS base element, thermal monitoring, visual fault warning.

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Type 2 surge protection plug - VAL-MS 350 VF ST - 2856595



surge protection connector type 2 with series connection consisting of varistor and gas-filled spark gap for VAL-MS base element, thermal monitoring, visual fault warning. Design: 350 V AC