

## Surge protection base element - VAL-MS BE-AR/FM - 2801066

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Base element for Type 1 and Type 2 surge arresters of the VAL-MS series, with separate field and house termination, tool-free isolation disconnect, test point, and remote indication contacts. Design: 1-channel, bridgeable.

### Your advantages

- Versions with and without floating remote indication contact
- Separate field and house wire termination.
- Tool-free field wire disconnect and test point.
- IP20 touch safe when connected.
- Coding when protective plug is inserted for the first time

### Key Commercial Data

Packing unit	1 pc
GTIN	 4 046356 725521
GTIN	4046356725521
Weight per Piece (excluding packing)	148.000 g
Custom tariff number	85363010
Country of origin	United States

### Technical data

#### Note

Trade restriction	The products are offered exclusively for export outside the EU and the European Economic Area.
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#### Dimensions

Height	160 mm
Width	17.7 mm

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## Technical data

### Dimensions

Depth	75 mm
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### Ambient conditions

Degree of protection	IP20
	IP20 (when disconnect closed)
Ambient temperature (operation)	-40 °C ... 80 °C
Altitude	max. 3000 m
Permissible humidity (operation)	5 % ... 95 %
Permissible humidity (storage/transport)	5 % ... 95 %
Shock (operation)	10g
Vibration (operation)	2g (0 ... 200 Hz)

### General

Housing material	PA
Flammability rating according to UL 94	V0
Color	black
Total surge current (8/20) $\mu$ s	100 kA
Total surge current (10/350) $\mu$ s	15 kA
Mounting type	DIN rail mounting with additional retaining screw
Type	DIN rail module, two-section, divisible
Number of positions	1
Surge protection fault message	Optical, remote indicator contact
Direction of action	1L-N/PE

### Protective circuit

Nominal frequency $f_N$	50 Hz (60 Hz)
Rated load current $I_L$	55 A (with 6 AWG)
Recommended backup fuse maximum	125 A (gL / gG)
Short-circuit withstand capability $I_P$ with max. backup fuse (r.m.s.)	25 kA

### Connection, protective circuit

Connection method	Screw terminal block
Connection method IN	Screw terminal blocks
Connection method OUT	Screw terminal blocks
Tightening torque	3 Nm ... 4.5 Nm (Ground)
	1.5 Nm ... 1.8 Nm (House)
	2.5 Nm ... 3 Nm (Field)
Conductor cross section AWG	15 ... 2 (16 mm strip length)
	20 ... 6 (10 mm strip length)

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### Technical data

#### Connection, protective circuit

	12 ... 4 (14 mm strip length)
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#### Remote indication contact

Connection name	Remote fault indicator contact
Switching function	PDT, 1-pos.
Connection method	Screw connection
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
Max. operating current I <sub>max</sub>	1 A AC (250 V AC)
	1 A DC (30 V DC)

#### NEMA / UL data

Maximum Surge Current per Phase	100 kA
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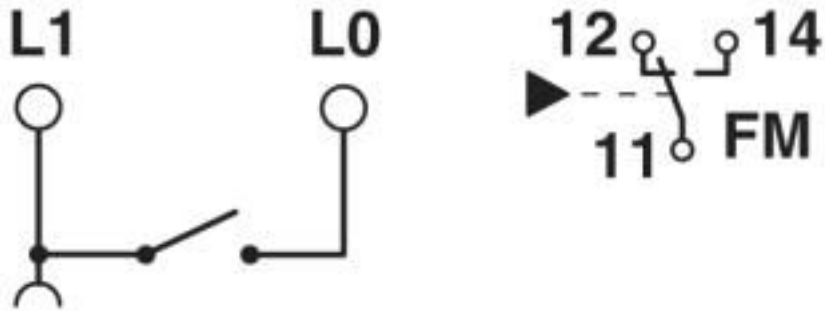
#### Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

### Drawings

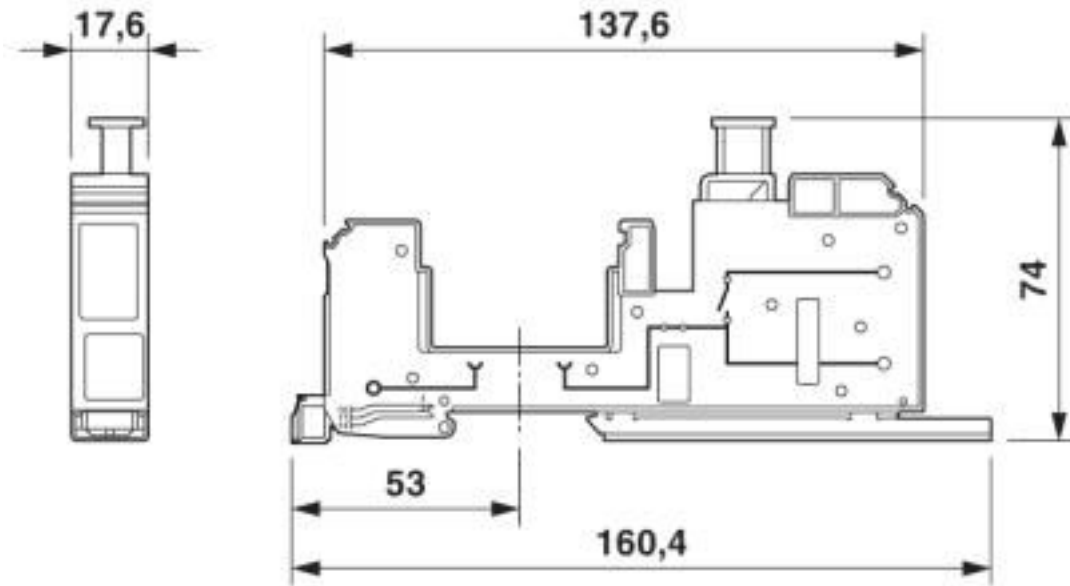
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Circuit diagram



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Dimensional drawing



### Classifications

#### eCl@ss

eCl@ss 10.0.1	27130803
eCl@ss 4.0	27130800
eCl@ss 4.1	27130800
eCl@ss 5.0	27130800
eCl@ss 5.1	27130800
eCl@ss 6.0	27130800
eCl@ss 7.0	27130803
eCl@ss 8.0	27130803
eCl@ss 9.0	27130803

#### ETIM

ETIM 3.0	EC000941
ETIM 4.0	EC000381
ETIM 5.0	EC000472
ETIM 6.0	EC000472
ETIM 7.0	EC000472

#### UNSPSC

UNSPSC 6.01	30212010
UNSPSC 7.0901	39121610

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### Classifications

#### UNSPSC

UNSPSC 11	39121610
UNSPSC 12.01	39121610
UNSPSC 13.2	39121620
UNSPSC 18.0	39121620
UNSPSC 19.0	39121620
UNSPSC 20.0	39121620
UNSPSC 21.0	39121620

### Accessories

#### Accessories

##### Bridge

Wiring bridge - MPB 18/1-57 - 2809238



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

Wiring bridge - MPB 18/1- 2 - 2809209



Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 2-pos.

Wiring bridge - MPB 18/1-12 - 2748593



Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 12-pos.

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### Accessories

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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Screwdriver - SZS 1,0X6,5 VDE - 1205079



Screwdriver, slot-headed, VDE insulated, size: 1.0 x 6.5 x 150 mm, 2-component grip, with non-slip grip

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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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### Accessories

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#### Screw insert - SF-BIT-SL 1,2X6,5-70 - 1212577



Screw bit, bladed, E6.3-1/4" drive, size: 1.2 x 6.5 x 70 mm, hardened, suitable for holder according to DIN 3126-F6.3/ISO 1173

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#### Screw insert - SF-BIT-SL 1,0X4,0-70 - 1212754



Screw bit, slotted, E6.3-1/4" drive, size: 1 mm x 4 mm x 70 mm, hardened, suitable for holder according to DIN 3126-F6.3/ISO 1173

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### Torque tool

#### Torque screwdriver - TSD-M 6NM - 1212226



Torque screw driver, accuracy as per EN ISO 6789 standard, adjustable from 3 - 6 Nm

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#### Torque screwdriver - TSD-M 3NM - 1212225



Torque screw driver, accuracy as per EN ISO 6789 standard, adjustable from 1.2 - 3 Nm

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