

VAL-MS-T1/T2 BE/O - Type 2 surge protection base element

2905650

<https://www.phoenixcontact.com/us/products/2905650>

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Base element for type 1/2 arresters from the VALVETRAB MS T1/T2 product range. Version: 1-channel

Your advantages

- Rack-mount 2U panel applications
- Plug-in direction parallel to the conductor axis
- Versions with and without floating remote indication contact
- DIN rail mounting
- Accepts Type 1 and Type 2 VAL-MS plugs
- Coding when protective plug is inserted for the first time

Commercial data

| | |
|--------------------------------------|---------------|
| Item number | 2905650 |
| Packing unit | 12 pc |
| Minimum order quantity | 12 pc |
| Sales key | CL18 |
| Product key | CL1151 |
| GTIN | 4046356983006 |
| Weight per piece (including packing) | 95 g |
| Weight per piece (excluding packing) | 81 g |
| Customs tariff number | 85363030 |
| Country of origin | US |

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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. |
|------|---|

Product properties

| | |
|--------------------------------|---------------------------------|
| Product type | Base element |
| Product family | VALVETRAB MS |
| IEC test classification | I / II T1 / T2 |
| EN type | T1 / T2 |
| Type | Base element, DIN rail mounting |
| Number of positions | 1 |
| Surge protection fault message | none |

Insulation characteristics

| | |
|----------------------|-----|
| Overvoltage category | III |
| Pollution degree | 2 |

Electrical properties

| | |
|-------------------------|---------------|
| Nominal frequency f_N | 50 Hz (60 Hz) |
| Nominal voltage U_N | 500 V AC |

Connection data

| | |
|---------------------------------------|---------------------------------|
| Connection method | Biconnect terminal blocks |
| Screw thread | M5 |
| Tightening torque | 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 | 15 ... 2 (IEC) 10 ... 2 (UL) |

Dimensions

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| | |
|---------------------|---------|
| Dimensional drawing | |
| Width | 17.6 mm |
| Height | 77.1 mm |
| Depth | 89.2 mm |

Material specifications

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

Mechanical properties

Mechanical data

| | |
|-----------------|----|
| Open side panel | No |
|-----------------|----|

Protective circuit

| | |
|---|--|
| Nominal frequency f_N | 50 Hz (60 Hz) |
| Maximum continuous operating voltage U_C | 600 V AC |
| Rated load current I_L | 80 A (with serial 16mm ² through wiring) 80 A (with serial 16mm ² through wiring) |
| Short-circuit current rating I_{SCCR} | 25 kA |
| Max. backup fuse with V-type through wiring | 80 A AC (gL/gG) |
| Max. backup fuse with branch wiring | 160 A (gL/gG) |

Environmental and real-life conditions

Ambient conditions

| | |
|----------------------------------|------------------|
| Degree of protection | IP20 IP20 |
| Ambient temperature (operation) | -40 °C ... 80 °C |
| Altitude | max. 2000 m |
| Permissible humidity (operation) | 5 % ... 95 % |
| Shock (operation) | 25g |
| Vibration (operation) | 5g |

Approvals

UL specifications

| | |
|----------|-----------------------------|
| SPD Type | 4 (for Type 2 applications) |
|----------|-----------------------------|

Standards and regulations

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| | |
|--------------------------|-----------------|
| Standards/specifications | IEC 61643-1 |
| Note | 2005 |
| Standards/specifications | EN 61643-11/A11 |
| Note | 2007 |

Mounting

| | |
|-------------------|--|
| Mounting type | DIN rail: 35 mm |
| Mounting position | Horizontal, flat-mounted DIN rail, NS 35 |

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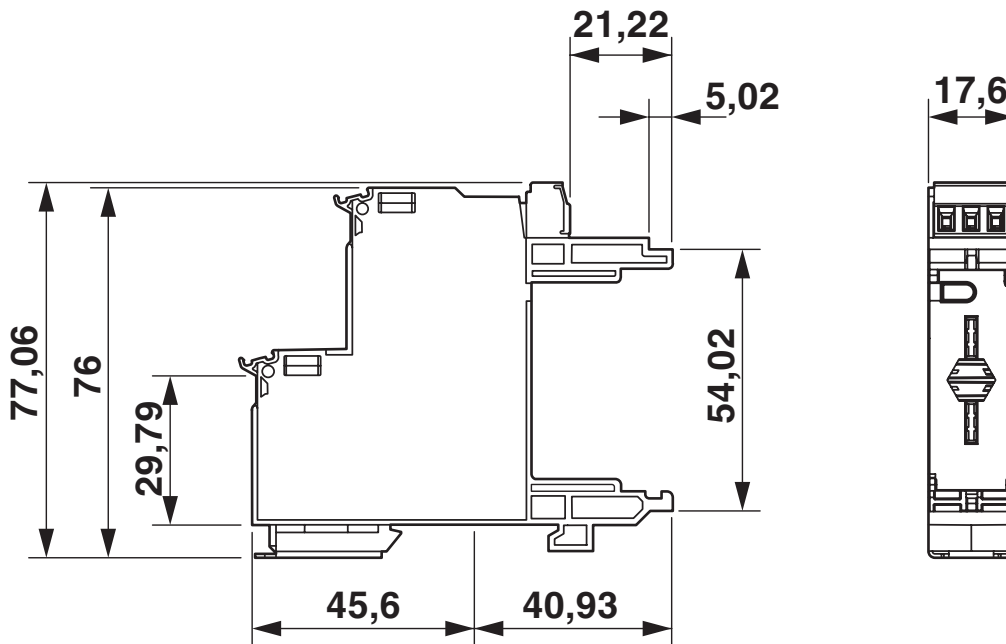


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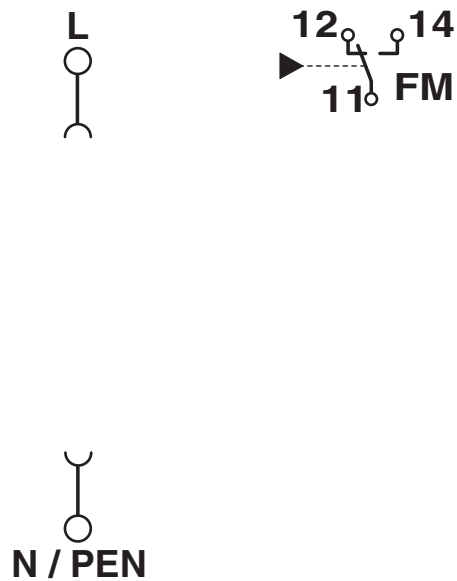
Drawings

Dimensional drawing



FM version shown

Circuit diagram



FM version shown

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Approvals

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Classifications

ECLASS

| | |
|-------------|----------|
| ECLASS-13.0 | 27171292 |
| ECLASS-15.0 | 27171292 |

ETIM

| | |
|-----------|----------|
| ETIM 10.0 | EC002496 |
|-----------|----------|

UNSPSC

| | |
|-------------|----------|
| UNSPSC 21.0 | 39121600 |
|-------------|----------|

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Environmental product compliance

EU RoHS

| | |
|---|--------------------|
| Fulfills EU RoHS substance requirements | Yes, No exemptions |
|---|--------------------|

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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