

VAL-MS-AR-T1/T2 75/FM - Lightning/surge arrester type 1/2



2801492

<https://www.phoenixcontact.com/us/products/2801492>

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The VAL-MS-AR T1/T2 75/FM is a high-capacity SPD for Type 1 lightning as well as Type 2 switching surge currents, ideal for applications with high load currents and high surge risk.

The VAL-MS BE-AR/FM base provides a disconnect that separates the field wire from the protected mode for field diagnosis and dry contacts for remote function monitoring. The base has independent input and output terminals on the same side with ground terminals on the opposite end. All terminals are high-current screw clamping for stripped or ferruled, solid or stranded wires.

Your advantages

- Separate field and house wire termination
- Tool-free field wire disconnect and test point
- IP20 touch safe when connected
- T1/T2 plugs provide lightning and surge current class protection

Commercial data

| | |
|--------------------------------------|--------------------------------|
| Item number | 2801492 |
| Packing unit | 10 pc |
| Minimum order quantity | 10 pc |
| Note | Made to order (non-returnable) |
| Sales key | CL18 |
| Product key | CL1151 |
| GTIN | 4046356879521 |
| Weight per piece (including packing) | 259.1 g |
| Weight per piece (excluding packing) | 259.1 g |
| Customs tariff number | 85363010 |
| 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 | I / II |
| | T1 / T2 |
| | T1 |
| | I |
| EN type | T1 / T2 |
| | T1 |
| Type | DIN rail module, two-section, divisible |
| Surge protection fault message | Optical, remote indicator contact |

Electrical properties

| | |
|-----------------------|-------------------------------------|
| Nominal voltage U_N | 60 V DC |
| Nominal current I_N | 76 A (at 30 °C ambient temperature) |

Indicator/remote signaling

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

Connection data

| | |
|----------------------------------|---|
| 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 ² ... 35 mm ² (16 mm strip length) |
| | 0.5 mm ² ... 15 mm ² (10 mm strip length) |
| | 1.5 mm ² ... 25 mm ² (14 mm strip length) |
| Conductor cross-section rigid | 1.5 mm ² ... 35 mm ² (16 mm strip length) |
| | 0.5 mm ² ... 15 mm ² (10 mm strip length) |
| | 1.5 mm ² ... 25 mm ² (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 | Screw connection |
| Screw thread | M2 |
| Tightening torque, min | 0.25 Nm |

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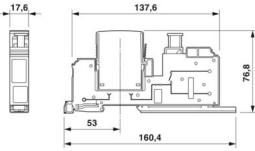


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| | |
|---------------------------------------|--|
| Tightening torque | 2 lb _F -in. ... 4 lb _F -in. (UL) |
| Stripping length | 7 mm |
| Conductor cross-section flexible min. | 0.14 mm ² |
| Conductor cross-section flexible max. | 1.5 mm ² |
| Conductor cross-section, rigid min. | 0.14 mm ² |
| Conductor cross-section, rigid max. | 1.5 mm ² |

Dimensions

| | |
|---------------------|--|
| Dimensional drawing |  |
| Width | 17.7 mm |
| Height | 160 mm |
| Depth | 77.5 mm |

Material specifications

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

Protective circuit

| | |
|--|-------------------|
| Direction of action | L-L / L-PE |
| Maximum continuous operating voltage U_C | 75 V DC |
| Maximum continuous operating voltage U_C (L-N) | 75 V DC |
| Rated load current I_L | 55 A (with 6 AWG) |
| Nominal discharge current I_n (8/20) μ s | 12.5 kA |
| Maximum discharge current I_{max} (8/20) μ s | 50 kA |
| Total discharge current I_{Total} (8/20) μ s | 50 kA |
| Total discharge current I_{Total} (10/350) μ s | 12.5 kA |
| Voltage protection level U_p | ≤ 0.7 kV |
| Total surge current (10/350) μ s | 15 kA |
| Total surge current (8/20) μ s | 50 kA |
| Max. backup fuse with branch wiring | 160 A 160 A |

Environmental and real-life conditions

Ambient conditions

| | |
|---------------------------------|---------------------------------------|
| Degree of protection | IP20 (when disconnect closed) IP20 |
| Ambient temperature (operation) | -40 °C ... 80 °C |

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| | |
|--|----------------------|
| Altitude | max. 3000 m |
| Permissible humidity (operation) | 5 % ... 95 % |
| Permissible humidity (storage/transport) | 5 % ... 95 % |
| Shock (operation) | 10g |
| Vibration (operation) | 2g (0 Hz ... 200 Hz) |

Mounting

| | |
|---------------|---|
| Mounting type | DIN rail mounting with additional retaining screw |
|---------------|---|

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Drawings

Dimensional drawing



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Circuit diagram



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Classifications

ECLASS

ECLASS-13.0

27171201

ETIM

ETIM 9.0

EC000381

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 |
|---|---|

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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