

Type 2 surge protection base element - VAL-MS/3+1-BE/FM - 2838898

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Base element for type 2 arresters of the VALVETRAB MS series of products, with remote indication contact. Version for 3-phase power supply with separate installation of N and PE conductors.

Your advantages

- ✓ Versions with and without floating remote indication contact
- ✓ Single/multi-position design for accommodating protective plugs
- ✓ DIN rail module
- ✓ Coding when protective plug is inserted for the first time



Key Commercial Data

| | |
|--------------|---|
| Packing unit | 1 pc |
| GTIN |  4 017918 171933 |
| GTIN | 4017918171933 |

Technical data

Dimensions

| | |
|------------------|---------------------------------|
| Height | 98.7 mm |
| Width | 71 mm |
| Depth | 65.7 mm (incl. DIN rail 7.5 mm) |
| Horizontal pitch | 4 Div. |

Ambient conditions

| | |
|---|---|
| Degree of protection | IP20 (only when all terminal points are used) |
| Ambient temperature (operation) | -40 °C ... 80 °C |
| Ambient temperature (storage/transport) | -40 °C ... 80 °C |
| Altitude | ≤ 2000 m (amsl (above mean sea level)) |
| Permissible humidity (operation) | 5 % ... 95 % |
| Shock (operation) | 25g (Half-sine / 11 ms / 3x ±X, ±Y, ±Z) |
| Vibration (operation) | 5g (10 ... 500 Hz / 2.5 h / X, Y, Z) |

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Technical data

General

| | |
|--|---------------------------------|
| IEC test classification | II |
| | T2 |
| EN type | T2 |
| Mounting type | DIN rail: 35 mm |
| Color | jet black RAL 9005 |
| Housing material | PBT |
| Degree of pollution | 2 |
| Flammability rating according to UL 94 | V-0 |
| Type | Base element, DIN rail mounting |
| Number of positions | 4 |
| Surge protection fault message | Remote indication contact |

Protective circuit

| | |
|---|---------------|
| Nominal frequency f_N | 50 Hz (60 Hz) |
| Maximum continuous voltage U_C | 500 V AC |
| Rated load current I_L | 80 A |
| Short-circuit current rating I_{SCCR} | 25 kA |
| Max. backup fuse with V-type through wiring | 80 A (gG) |
| Max. backup fuse with branch wiring | 125 A (gG) |

Indicator/remote signaling

| | |
|----------------------------------|--|
| Switching function | PDT contact |
| Operating voltage | 5 V AC ... 250 V AC |
| | 30 V DC |
| Operating current | 5 mA AC ... 750 mA AC |
| | 1 A DC |
| Connection method | Plug-in/screw connection via COMBICON |
| Screw thread | M2 |
| Tightening torque | 0.25 Nm |
| Stripping length | 7 mm |
| Conductor cross section flexible | 0.14 mm ² ... 1.5 mm ² |
| Conductor cross section solid | 0.14 mm ² ... 1.5 mm ² |
| Conductor cross section AWG | 28 ... 16 |

Connection data

| | |
|----------------------------------|---|
| Connection method | Screw connection |
| Screw thread | M5 |
| Tightening torque | 3 Nm (1.5 mm ² ... 16 mm ²) |
| | 4.5 Nm (25 mm ² ... 35 mm ²) |
| Stripping length | 16 mm |
| Conductor cross section flexible | 1.5 mm ² ... 25 mm ² |
| Conductor cross section solid | 1.5 mm ² ... 35 mm ² |

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Technical data

Connection data

| | |
|----------------------------------|--|
| Conductor cross section AWG | 15 ... 2 |
| Connection method | Fork-type cable lug |
| Conductor cross section flexible | 1.5 mm ² ... 16 mm ² |

UL specifications

| | |
|--------------|----------|
| SPD Type | 4CA |
| Nom. voltage | 690 V AC |

UL indicator/remote signaling

| | |
|-----------------------------|------------------------|
| Operating voltage | 125 V AC |
| Operating current | 1 A AC |
| Tightening torque | 4 lb _F -in. |
| Conductor cross section AWG | 30 ... 14 |

UL connection data

| | |
|-----------------------------|-------------------------|
| Conductor cross section AWG | 10 ... 2 |
| Tightening torque | 30 lb _F -in. |

Standards and Regulations

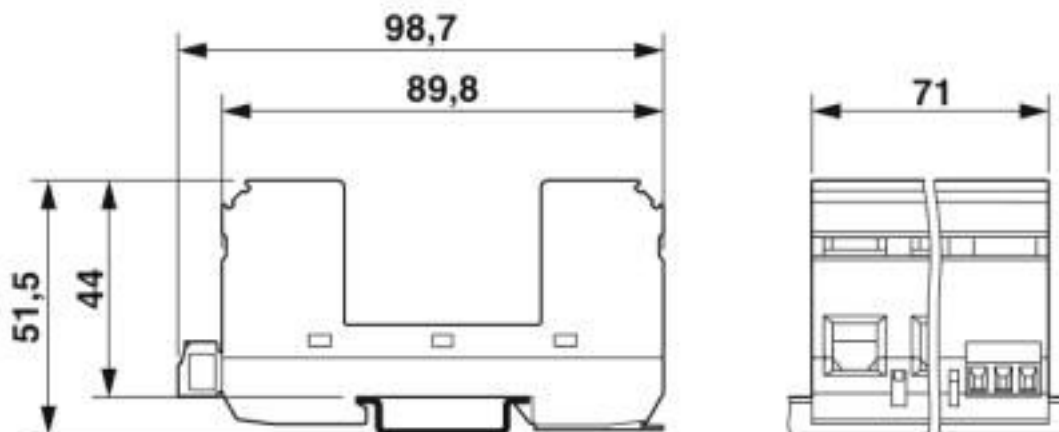
| | |
|-----------------------|-------------------|
| Standards/regulations | IEC 61643-11 2011 |
| | EN 61643-11 2012 |

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" |

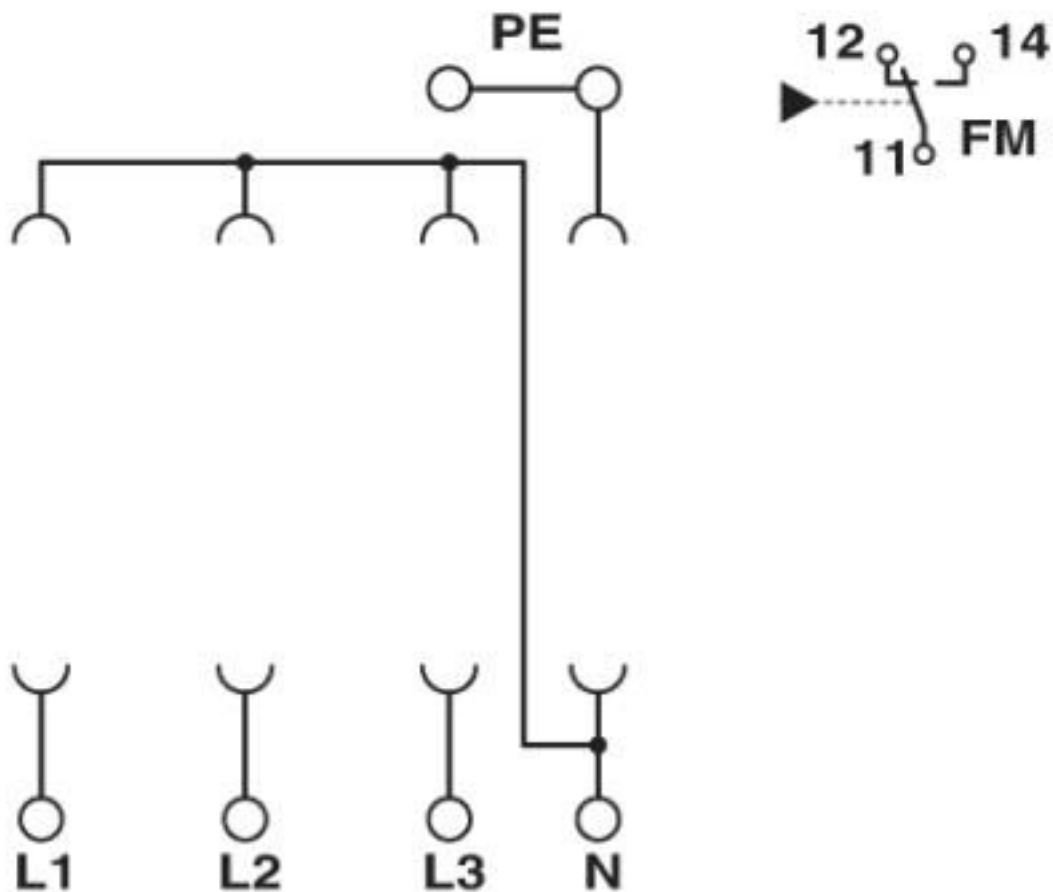
Drawings

Dimensional drawing



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Circuit diagram



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 2.0 | EC000472 |
| ETIM 3.0 | EC000472 |
| ETIM 4.0 | EC000472 |
| ETIM 5.0 | EC000472 |

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Classifications

ETIM

| | |
|----------|----------|
| ETIM 6.0 | EC000472 |
| ETIM 7.0 | EC000472 |

UNSPSC

| | |
|---------------|----------|
| UNSPSC 6.01 | 30212010 |
| UNSPSC 7.0901 | 39121610 |
| 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 |

Approvals

Approvals

Approvals

CSA / GL / CCA / UL Recognized / KEMA-KEUR / cUL Recognized / IECCE CB Scheme / ÖVE / EAC / cULus Recognized

Ex Approvals

Approval details

| | | | |
|-----|---|---|-------|
| CSA |  | http://www.csagroup.org/services-industries/product-listing/ | 13631 |
|-----|---|---|-------|

| | | | |
|----|---|---|-------------|
| GL |  | https://approvalfinder.dnvgl.com/ | 94385-10 HH |
|----|---|---|-------------|

| | | | |
|-----|--|--|---------------|
| CCA | | | NTR-AT 1947-A |
|-----|--|--|---------------|

| | | | |
|---------------|---|---|---------------|
| UL Recognized |  | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | FILE E 330181 |
|---------------|---|---|---------------|

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Approvals

| | | | |
|------------------|--|---|---------------------|
| KEMA-KEUR | | http://www.dekra-certification.com | 71-113273 |
| cUL Recognized | | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | FILE E 330181 |
| IECEE CB Scheme | | http://www.iecee.org/ | AT 2905/M1 |
| ÖVE | | https://www.ove.at/zertifizierung-pz/zertifizierungsregister/ | 18583-001-14 |
| EAC | | | RU C-DE.*09.B.00169 |
| cULus Recognized | | | |

Accessories

Accessories

Bridge

Wiring bridge - MPB 18/4- 8 - 2809283



Wiring bridge for modules with connecting pitch 17.5 mm, 4-phase, 8-pos.

Wiring bridge - MPB 18/1-10/1.0.0 - 2830443



Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 10 pitches with contact sequence 1-0-0

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Accessories

Wiring bridge - MPB 18/4- 8 - 2809283



Wiring bridge for modules with connecting pitch 17.5 mm, 4-phase, 8-pos.

Wiring bridge - MPB 18/3- 6 - 2809241



Wiring bridge for modules with connecting pitch 17.5 mm, 3-phase, 6-pos.

Wiring bridge - MPB 18/1-57 - 2809238



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

Wiring bridge - MPB 18/1-12 - 2748593



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

Wiring bridge - MPB 18/1- 9 - 2748580



Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 9-pos.

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Accessories

Wiring bridge - MPB 18/1- 8 - 2748577



Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 8-pos.

Wiring bridge - MPB 18/1- 6 - 2748564



Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 6-pos.

Wiring bridge - MPB 18/1- 4 - 2809225



Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 4-pos.

Wiring bridge - MPB 18/1- 3 - 2809212



Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 3-pos.

Wiring bridge - MPB 18/1- 2 - 2809209



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

Device marking

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Accessories

Zack marker strip - ZBN 18:UNBEDRUCKT - 2809128



Zack marker strip, Strip, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, PLOTMARK, mounting type: snap into tall marker groove, for terminal block width: 18 mm, lettering field size: 18 x 5 mm, Number of individual labels: 5

Feed-through terminal block

Feed-through terminal block - DK-BIC-35 - 2749880



Feed-through terminal block for VAL and FLT applications

Labeled device marker

Marker for terminal blocks - ZBN 18,LGS:ERDE - 2749589



Marker for terminal blocks, Strip, white, labeled, horizontal: Grounding symbol, mounting type: snap into tall marker groove, for terminal block width: 18 mm, lettering field size: 18 x 5 mm, Number of individual labels: 5

Marker for terminal blocks - ZBN 18,LGS:L1-N,ERDE - 2749576



Marker for terminal blocks, Strip, white, labeled, horizontal: L1, L2, L3, N, GND, mounting type: snap into tall marker groove, for terminal block width: 18 mm, lettering field size: 18 x 5 mm, Number of individual labels: 5

Marker pen

Marker pen - B-STIFT - 1051993



Marker pen, for manual labeling of unprinted Zack strips, smear-proof and waterproof, line thickness 0.5 mm

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[2713175](#) [4B06B-EC1-150LF](#) [SRA6LC](#) [BPMA75D100LV](#) [CX06M](#) [CCTV1](#) [GUS13](#) [GUS14](#) [GUS5](#) [GUS6](#) [VAL-MS 320/3+0-FM](#) [VAL-US-](#)
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