

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



2838898

<https://www.phoenixcontact.com/in/products/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

- Quality proven millions of times over in the widest range of applications
- Rapid installation with bridges, thanks to industry-standard overall width of 1 HP
- Easy testing and insulation measurement, thanks to pluggable protection modules
- Wide range of applications due to various nominal voltages
- High degree of modularity provides individual solutions for every application

Commercial Data

Item number	2838898
Packing unit	1 pc
Minimum order quantity	1 pc
Sales Key	CL1
Product Key	CL1321
Catalog Page	Page 66 (C-4-2019)
GTIN	4017918171933
Weight per Piece (including packing)	256.7 g
Weight per Piece (excluding packing)	232.6 g
Customs tariff number	85363030
Country of origin	IN

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Technical Data

Product properties

IEC test classification	II
	T2
EN type	T2
Type	Base element, DIN rail mounting
Product type	Base element
Product family	VALVETRAB MS
Number of positions	4
Surge protection fault message	Remote indication contact

Insulation characteristics

Overvoltage category	III
Pollution degree	2

Electrical properties

Nominal frequency f_N	50 Hz (60 Hz)
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Indicator/remote signaling

Connection name	Remote fault indicator contact
Switching function	Changeover contact
Operating voltage	5 V AC ... 250 V AC
	30 V DC
Operating current	5 mA AC ... 750 mA AC
	1 A DC

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 rigid	1.5 mm ² ... 35 mm ²
Conductor cross section AWG	15 ... 2
Connection method	Fork-type cable lug
Conductor cross section flexible	1.5 mm ² ... 16 mm ²

Remote fault indicator contact

Connection method	Plug-in/screw connection via COMBICON
Screw thread	M2
Tightening torque	0.25 Nm
Conductor cross section flexible	0.14 mm ² ... 1.5 mm ²
Conductor cross section rigid	0.14 mm ² ... 1.5 mm ²

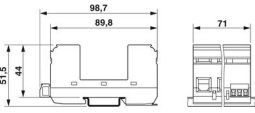
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Conductor cross section AWG	28 ... 16
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Dimensions

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

Material specifications

Color	jet black RAL 9005
Flammability rating according to UL 94	V-0
CTI value of material	600
Insulating material	PBT
Material group	I
Housing material	PBT

Mechanical properties

Mechanical data

Open side panel	No
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Protective circuit

Direction of action	3L-N & N-PE
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)

Environmental and real-life conditions

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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Approvals

UL specifications

Nominal voltage	690 V AC
SPD Type	4CA

UL indicator/remote signaling

AC operating voltage	125 V AC
AC operating current	1 A AC

UL connection data

Tightening torque	30 lb _f -in.
Conductor cross section AWG	14 ... 2

Standards and regulations

Standards/specifications	IEC 61643-11
Standards/specifications	EN 61643-11

Mounting

Mounting type	DIN rail: 35 mm
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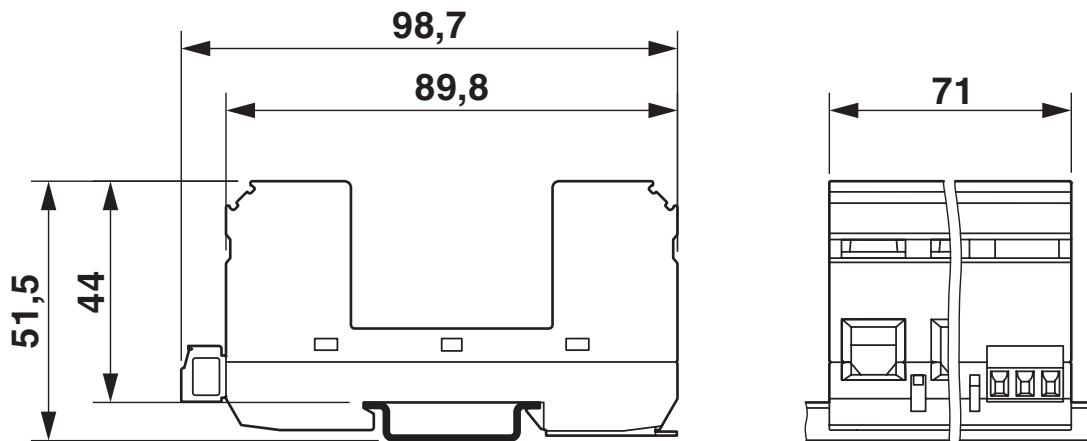


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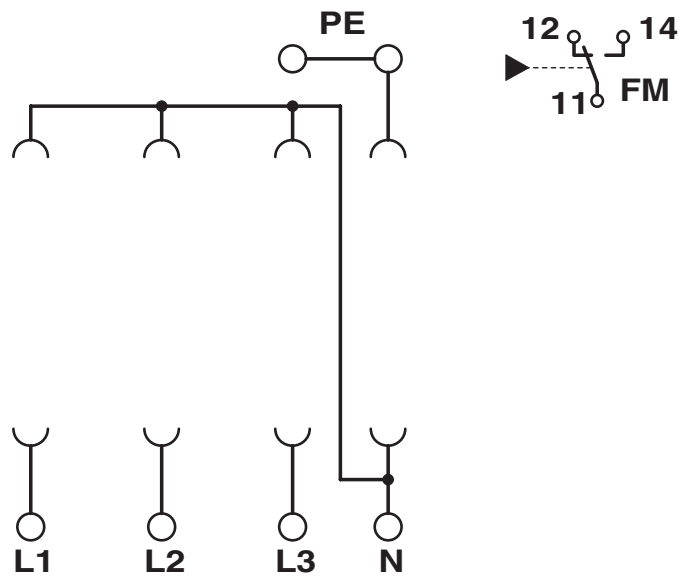
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Drawings

Dimensional drawing



Circuit diagram



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Approvals



cUL Recognized
Approval ID: FILE E 330181



UL Recognized
Approval ID: FILE E 330181



IECEE CB Scheme
Approval ID: AT 2905/M1



EAC
Approval ID: RU C-DE.*09.B.00169



KEMA-KEUR
Approval ID: 71-113273 REV.1



DNV GL
Approval ID: TAE000041M



CSA
Approval ID: 13631



ÖVE
Approval ID: 18583-001-16



ÖVE
Approval ID: 18583-001-17

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Classifications

ECLASS

ECLASS-11.0

27130803

ETIM

ETIM 8.0

EC000472

UNSPSC

UNSPSC 21.0

39121600

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Environmental Product Compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

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Accessories

MPB 18/1-10/1.0.0 - Wiring bridge

2830443

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

MPB 18/4- 8 - Wiring bridge

2809283

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

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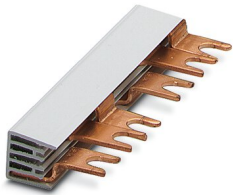
<https://www.phoenixcontact.com/in/products/2838898>

MPB 18/3- 6 - Wiring bridge

2809241

<https://www.phoenixcontact.com/in/products/2809241>

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



MPB 18/1-57 - Wiring bridge

2809238

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



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MPB 18/1-12 - Wiring bridge

2748593

<https://www.phoenixcontact.com/in/products/2748593>



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

MPB 18/1- 9 - Wiring bridge

2748580

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

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MPB 18/1- 8 - Wiring bridge

2748577

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

MPB 18/1- 6 - Wiring bridge

2748564

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

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MPB 18/1- 4 - Wiring bridge

2809225

<https://www.phoenixcontact.com/in/products/2809225>

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



MPB 18/1- 3 - Wiring bridge

2809212

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



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MPB 18/1- 2 - Wiring bridge

2809209

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



ZBN 18,LGS:ERDE - Marker for terminal blocks

2749589

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



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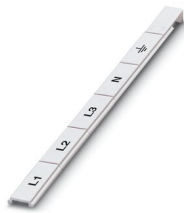
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ZBN 18,LGS:L1-N,ERDE - Marker for terminal blocks

2749576

<https://www.phoenixcontact.com/in/products/2749576>



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

ZBN 18:UNBEDRUCKT - Zack marker strip

2809128

<https://www.phoenixcontact.com/in/products/2809128>



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

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B-STIFT - Marker pen

1051993

<https://www.phoenixcontact.com/in/products/1051993>



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

DK-BIC-35 - Feed-through terminal block

2749880

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Feed-through terminal block for VAL and FLT applications

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MPB 18/4- 8 - Wiring bridge

2809283

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

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PHOENIX CONTACT (I) Pvt. Ltd.

A-58/2, Okhla Industrial Area, Phase - II, New Delhi-110 020

+91.1275.71420

info@phoenixcontact.co.in