

## Type 2 surge protection plug - VAL-MS 120 ST - 2807586

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Surge protection connector type 2 with high-capacity varistor for VAL-MS base element, thermal monitoring, visual fault warning. Design: 120 V AC



### Product Features

- Single-channel, DIN-rail mountable protective devices
- Base element with/without floating remote indication contact
- Disconnect device on each individual plug
- Consists of base element and plug
- Optical, mechanical status indication for the individual arresters
- Mechanical coding of all slots



### Key commercial data

Packing unit	1 pc
GTIN	 4 017918 075279
Weight per Piece (excluding packing)	35.47 GRM
Custom tariff number	85363010
Country of origin	Germany

### Technical data

#### Dimensions

Height	52.4 mm
Width	17.7 mm
Depth	54.5 mm
Pitch unit	1 Div.

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## Technical data

### Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-40 °C ... 80 °C
Permissible humidity (operation)	5 % ... 95 %

### General

Housing material	PA
Inflammability class according to UL 94	V0
Color	black
Standards for air and creepage distances	IEC 664-1
	VDE 0675-6
	DIN VDE 0110-1
Mounting type	On base element
Design	DIN rail module, two-section, divisible
Number of positions	1
Arrester can be tested with CHECKMASTER from software version:	From SW rev. 1.10
Surge protection fault message	Optical
Direction of action	1L-N/PE

### Protective circuit

IEC test classification	II
	T2
EN type	T2
Nominal voltage $U_N$	120 V AC
Maximum continuous operating voltage $U_C$	150 V AC
$U_T$ (TOV-proof)	175 V AC (5 s)
Nominal frequency $f_N$	50 Hz (60 Hz)
Residual current $I_{PE}$	$\leq 0.45$ mA
Standby power consumption $P_C$	$\leq 70$ mVA
Max. discharge current $I_{max}$ (8/20) $\mu$ s	40 kA
Nominal discharge current $I_n$ (8/20) $\mu$ s	20 kA
Impulse discharge current (10/350) $\mu$ s, peak value $I_{imp}$	3 kA
Max. energy absorption (2 ms)	360 J
Voltage protection level $U_p$	$\leq 800$ V
Residual voltage	$\leq 800$ V
	$\leq 550$ V (at 5 kA)
	$\leq 550$ V (at 3 kA)
Response time	$\leq 25$ ns
Max. required backup fuse with branch wiring	125 A (gG)

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### Technical data

#### Protective circuit

Short-circuit resistance $I_p$ with max. backup fuse (effective)	25 kA
Capacity	5.5 nF $\pm 30\%$

#### Standards and Regulations

Standards/regulations	IEC 61643-1 2005
	EN 61643-11/A11 2007
	UL 1449

### Classifications

#### eCl@ss

eCl@ss 4.0	27140201
eCl@ss 4.1	27130801
eCl@ss 5.0	27130801
eCl@ss 5.1	27130801
eCl@ss 6.0	27130805
eCl@ss 7.0	27130805
eCl@ss 8.0	27130805

#### ETIM

ETIM 2.0	EC000941
ETIM 3.0	EC000941
ETIM 4.0	EC000941
ETIM 5.0	EC000941

#### UNSPSC

UNSPSC 6.01	30212010
UNSPSC 7.0901	39121610
UNSPSC 11	39121610
UNSPSC 12.01	39121610
UNSPSC 13.2	39121620

### Approvals

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IECEx CB Scheme / CSA / UL Recognized / KEMA-KEUR / ÖVE / cUL Recognized / GOST / CCA / KEMA-KEUR / cULus Recognized

## Type 2 surge protection plug - VAL-MS 120 ST - 2807586

### Approvals

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Ex Approvals

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Approvals submitted

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Approval details

IECEE CB Scheme 

CSA 

Nominal voltage UN

120 V

UL Recognized 

KEMA-KEUR 

ÖVE 

cUL Recognized 

GOST 

## Type 2 surge protection plug - VAL-MS 120 ST - 2807586

### Approvals

CCA

KEMA-KEUR 

cULus Recognized 

### Accessories

#### Accessories

#### Bridge

Wiring bridge - MPB F600X16/ 1GS - 2818355



Wiring bridge flexible, diameter: 16 mm<sup>2</sup>, with a fork-type cable lug on one side, length: 600 mm

Wiring bridge - MPB F400X16/ 1GS - 2818342



Wiring bridge flexible, diameter 16 mm<sup>2</sup>, with a fork-type cable lug on one side, length: 400 mm

Wiring bridge - MPB F200X16/ 1GS - 2818339



Wiring bridge flexible, diameter 16 mm<sup>2</sup>, with a fork-type cable lug on one side, length: 200 mm

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### Accessories

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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Wiring bridge - MPB 18/1-20/1.2.5 - 2830168



Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 20 pitches with contact sequence 1-2-0-0-5

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Wiring bridge - MPB 18/4-12 - 2809296



Wiring bridge for modules with connecting pitch 17.5 mm, 4-phase, 12-pos.

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Wiring bridge - MPB 18/4- 8 - 2809283



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

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Wiring bridge - MPB 18/3- 6 - 2809241



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

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### Accessories

Wiring bridge - MPB 18/1-57 - 2809238



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

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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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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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Wiring bridge - MPB 18/1- 8 - 2748577



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

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Wiring bridge - MPB 18/1- 6 - 2748564



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

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### Accessories

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

Zack marker strip - ZBN 18:UNBEDRUCKT - 2809128



Zack marker strip, Strip, white, Unlabeled, Can be labeled with: Plotter, Mounting type: Snap into tall marker groove, For terminal block width: 18 mm, Lettering field: 18 x 5 mm

### Labeled device marker

Zack marker strip - ZBN 18,LGS:ERDE - 2749589



Zack marker strip, Strip, white, labeled, Horizontal: Grounding symbol, Mounting type: Snap into tall marker groove, For terminal block width: 18 mm, Lettering field: 18 x 5 mm

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### Accessories

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Zack marker strip - ZBN 18,LGS:L1-N,ERDE - 2749576



Zack marker strip, Strip, white, labeled, Horizontal: L1, L2, L3, N, GND, Mounting type: Snap into tall marker groove, For terminal block width: 18 mm, Lettering field: 18 x 5 mm

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### 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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### Additional products

Type 2 surge protection base element - VAL-MS BE - 2817741



Base element for type 2 arresters of the VALVETRAB MS series of products. Design: 1-channel

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Type 2 surge protection base element - VAL-MS BE/FM - 2817738



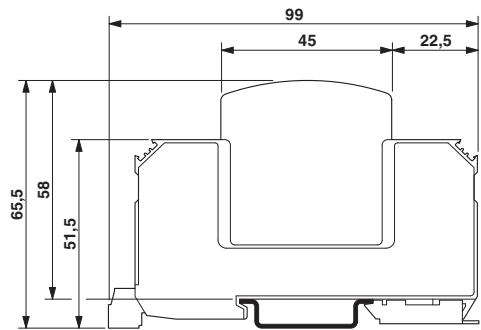
Base element for type 2 arresters of the VALVETRAB MS series of products, with remote indication contact. Design: 1-channel

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### Drawings

## Type 2 surge protection plug - VAL-MS 120 ST - 2807586

Dimensioned drawing



Circuit diagram



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