

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

Why buy this product

- ✓ Versions with and without floating remote indication contact
- ✓ 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.



Key commercial data

Packing unit	10 pc
Minimum order quantity	10 pc
GTIN	 4 046356 879521
Weight per Piece (excluding packing)	259.1 g
Custom tariff number	85363010
Country of origin	United States
Note	Made to Order (non-returnable)

Technical data

Dimensions

Height	160 mm
Width	17.7 mm
Depth	77.5 mm

Ambient conditions

Degree of protection	IP20
	IP20 (when disconnect closed)

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Technical data

Ambient conditions

Ambient temperature (operation)	-40 °C ... 80 °C
Altitude	max. 3000 m
Permissible humidity (operation)	5 % ... 95 %
Permissible humidity (storage/transport)	5 % ... 95 %
Shock (operation)	10g
Vibration (operation)	2g (0 ... 200 Hz)

General

Housing material	PA
Inflammability class according to UL 94	V0
Color	black
Total surge current (8/20) μ s	50 kA
Total surge current (10/350) μ s	15 kA
Mounting type	DIN rail mounting with additional retaining screw
Type	DIN rail module, two-section, divisible
Surge protection fault message	Optical, remote indicator contact
Direction of action	L-L / L-PE

Protective circuit

IEC test classification	I / II
	T1 / T2
EN type	T1 / T2
Nominal voltage U_N	60 V DC
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)
Max. discharge current I_{max} (8/20) μ s	50 kA
Nominal discharge current I_n (8/20) μ s	12.5 kA
Impulse discharge current (10/350) μ s charge	6.25 As
Impulse discharge current (10/350) μ s, specific energy	39 kJ/ Ω
Impulse discharge current (10/350) μ s, peak value I_{imp}	12.5 kA
Voltage protection level U_p	≤ 0.7 kV
Residual voltage	≤ 0.6 kV (at 5 kA)
	≤ 0.65 kV (at 10 kA)
	≤ 0.7 kV
	≤ 0.55 kV (at 3 kA)
Max. backup fuse with branch wiring	160 A
	160 A
Short-circuit resistance I_p with max. backup fuse (effective)	500 A

Connection, protective circuit

AWG conductor cross section	15 ... 2 (UL)
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Technical data

Connection, protective circuit

	20 ... 6
	12 ... 4

Remote indicator contact

Connection name	Remote fault indicator contact
Switching function	PDT, 1-pos.
Connection method	Screw connection
Screw thread	M2
Tightening torque	0.25 Nm
	2 lb _f -in. ... 4 lb _f -in. (UL)
Stripping length	7 mm
Conductor cross section stranded min.	0.14 mm ²
Conductor cross section stranded max.	1.5 mm ²
Conductor cross section solid min.	0.14 mm ²
Conductor cross section solid max.	1.5 mm ²
Conductor cross section AWG/kcmil min.	28
Conductor cross section AWG/kcmil max.	16
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)

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	27130802
eCl@ss 7.0	27130802

ETIM

ETIM 4.0	EC001675
ETIM 5.0	EC000943

UNSPSC

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

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Accessories

Accessories

Bridge

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- 2 - 2809209



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

Wiring bridge - MPB 18/1-12 - 2748593



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

Plug-in bridge - FBS 2-18 - 2801068



Plug-in bridge for cross-connections in the VAL-MS BE-AR terminal center, 2-pos., color: Red

Wiring bridge - MPB F600X16/ 1GS - 2818355



Wiring bridge flexible, diameter: 16 mm², with a fork-type cable lug on one side, length: 600 mm

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Accessories

Wiring bridge - MPB F600X16/ 1GS - 2818355



Wiring bridge flexible, diameter: 16 mm², with a fork-type cable lug on one side, length: 600 mm

Wiring bridge - MPB F200X16/ 1GS - 2818339



Wiring bridge flexible, diameter 16 mm², with a fork-type cable lug on one side, length: 200 mm

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

Wiring bridge - MPB 18/4-12 - 2809296



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

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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Accessories

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.

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.

Wiring bridge - MPB 18/1- 4 - 2809225



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

- MPB 18/1- 3 - 2809212

Wiring bridge - MPB 18/1- 2 - 2809209



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

Insertion bridge

Insertion bridge - EB 56-18 - 3009299



Insertion bridge, Number of positions: 56, Color: gray

Screwdriver tools

Screwdriver - SZS 0,8X4,0 VDE - 1212508



Screwdriver, slot-headed, VDE insulated, size: 0.8 x 4.0 x 100 mm, 2-component grip, with non-slip grip

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Accessories

Screwdriver - SZS 1,0X6,5 VDE - 1205079



Screwdriver, slot-headed, VDE insulated, size: 1.0 x 6.5 x 150 mm, 2-component grip, with non-slip grip

Screwdriver - SZS 0,4X2,5 VDE - 1205037



Screwdriver, slot-headed, VDE insulated, size: 0.4 x 2.5 x 80 mm, 2-component grip, with non-slip grip

Spare parts

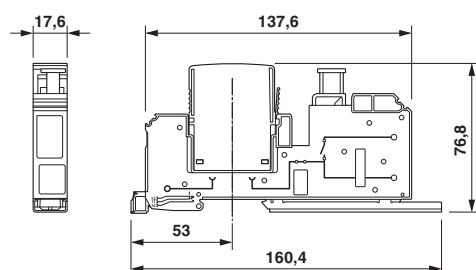
Type 1/2 surge protection plug - VAL-MS-T1/T2 75/12.5 ST - 2801146



Replacement plug for VAL-MS-T1/T2 75/12.5... plug-in lightning/surge arrester.

Drawings

Dimensioned drawing



Circuit diagram

