

## Lightning/surge arrester type 1/2 - VAL-MS-AR-T1/T2 75 - 2801491

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The VAL-MS-AR T1/T2 75 is a high-capacity SPD for Type 1 lightning as well as Type 2 switching surge currents, ideal for applications with both high load currents and high surge risk. VAL-MS BE-AR base provides a disconnect that separates the field wire from the protected mode for field diagnosis. 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.

### Product Features

- 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	1 pc
Weight per Piece (excluding packing)	170.0 GRM
Custom tariff number	85363010
Country of origin	Germany

### Technical data

#### Note

Trade restriction	The products are offered exclusively for export outside the EU and the European Economic Area.
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#### Dimensions

Height	153 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) $\mu$ s	50 kA
Total surge current (10/350) $\mu$ s	15 kA
Mounting type	DIN rail mounting with additional retaining screw
Type	DIN rail module, two-section, divisible
Surge protection fault message	Optical
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) $\mu$ s	50 kA
Nominal discharge current $I_n$ (8/20) $\mu$ s	12.5 kA
Impulse discharge current (10/350) $\mu$ s charge	6.25 As
Impulse discharge current (10/350) $\mu$ s, specific energy	39.00 kJ/ $\Omega$
Impulse discharge current (10/350) $\mu$ s, peak value $I_{imp}$	12.5 kA
Voltage protection level $U_p$	$\leq 0.7$ kV
Residual voltage	$\leq 0.6$ kV (at 5 kA)
	$\leq 0.65$ kV (at 10 kA)
	$\leq 0.7$ kV
	$\leq 0.55$ kV (at 3 kA)
Max. required backup fuse with branch wiring	160 A
Short-circuit resistance $I_p$ with max. backup fuse (effective)	500 A

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## Technical data

### Connection, protective circuit

AWG conductor cross section	15 ... 2 (UL)
	20 ... 6
	12 ... 4

## 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
eCl@ss 8.0	27130802

### ETIM

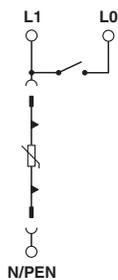
ETIM 4.0	EC001675
ETIM 5.0	EC001675

### UNSPSC

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

## Drawings

Circuit diagram



Dimensioned drawing

