

## Lightning/surge arrester type 1/2 - F-MS-T1/T2 50/FM - 2801135

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Lightning/surge arrester, consisting of base element and protective plug with N-PE total current spark gap and remote indication contact, for mounting on NS 35/7,5. Housing width: 17.5 mm (1TE)



### Key Commercial Data

Packing unit	1 pc
Custom tariff number	85363030
Country of origin	Germany

### Technical data

#### Dimensions

Height	99 mm
Width	17.5 mm
Depth	77.5 mm
Horizontal pitch	1 Div.

#### Ambient conditions

Degree of protection	IP20
	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)	30g
Vibration (operation)	7.5g

#### General

Standards/specifications	IEC 61643-11 2011
	EN 61643-11 2012

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## Technical data

### General

IEC test classification	I / II
	T1 / T2
	I
EN type	T1 / T2
IEC power supply system	TN-S
Number of ports	One
SPD design	Voltage-limiting type
Mode of protection	N-PE
Mounting type	DIN rail: 35 mm
Color	black
Housing material	PA 6.6
	PBT
Degree of pollution	2
Flammability rating according to UL 94	V-0
Type	DIN rail module, two-section, divisible
Surge protection fault message	Optical, remote indicator contact

### Protective circuit

Nominal voltage $U_N$	240/415 V AC (TN-S)
Nominal frequency $f_N$	50 Hz (60 Hz)
Maximum continuous voltage $U_C$	264 V AC
Rated load current $I_L$	80 A
Residual current $I_{PE}$	$\leq 5 \mu A$
Standby power consumption $P_C$	$\leq 1.3 \text{ mVA}$
Nominal discharge current $I_n$ (8/20) $\mu s$	12.5 kA
Maximum discharge current $I_{max}$ (8/20) $\mu s$	50 kA
Impulse discharge current (10/350) $\mu s$ , charge	25 As
Impulse discharge current (10/350) $\mu s$ , specific energy	625 kJ/ $\Omega$
Impulse discharge current (10/350) $\mu s$ , peak value $I_{imp}$	50 kA
Total discharge current $I_{Total}$ (8/20) $\mu s$	50 kA
Total discharge current $I_{Total}$ (10/350) $\mu s$	50 kA
Follow current interrupt rating $I_{fi}$	0.1 kA
Voltage protection level $U_p$	$\leq 1.7 \text{ kV}$
Residual voltage $U_{res}$	$\leq 0.6 \text{ kV}$ (at $I_n$ )
	$\leq 0.5 \text{ kV}$ (at 10 kA)
	$\leq 0.5 \text{ kV}$ (at 5 kA)
	$\leq 0.4 \text{ kV}$ (at 3 kA)

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### Protective circuit

Front of wave sparkover voltage at 6 kV (1.2/50) $\mu$ s	$\leq 1.7$ kV
TOV behavior at $U_T$	1200 V AC (200 ms / withstand mode)
Response time $t_A$	$\leq 100$ ns

### Indicator/remote signaling

Connection name	Remote fault indicator contact
Switching function	PDT contact
Operating voltage	5 V AC ... 250 V AC
	30 V DC
Operating current	5 mA AC ... 1 A
	1 A
Connection method	Screw connection
Screw thread	M2
Tightening torque	0.25 Nm
Stripping length	7 mm
Conductor cross section flexible min.	0.14 mm <sup>2</sup>
Conductor cross section flexible max.	1.5 mm <sup>2</sup>
Conductor cross section solid min.	0.14 mm <sup>2</sup>
Conductor cross section solid max.	1.5 mm <sup>2</sup>
Conductor cross section AWG	28 ... 16

### Connection data

Connection method	Screw connection
Conductor cross section flexible min.	1.5 mm <sup>2</sup>
Conductor cross section flexible max.	25 mm <sup>2</sup>
Conductor cross section solid min.	1.5 mm <sup>2</sup>
Conductor cross section solid max.	35 mm <sup>2</sup>
Conductor cross section AWG	15 ... 2
Screw thread	M5
Tightening torque	4.5 Nm
Stripping length	16 mm

## Classifications

### eCl@ss

eCl@ss 4.0	27140201
eCl@ss 4.1	27130801
eCl@ss 5.0	27130801

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## Classifications

### eCl@ss

eCl@ss 5.1	27130801
eCl@ss 6.0	27130802
eCl@ss 7.0	27130802
eCl@ss 8.0	27130802
eCl@ss 9.0	27130802

### ETIM

ETIM 3.0	EC000941
ETIM 4.0	EC000381
ETIM 5.0	EC000381

### UNSPSC

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

## Approvals

### Approvals

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Approvals

EAC

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Ex Approvals

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Approvals submitted

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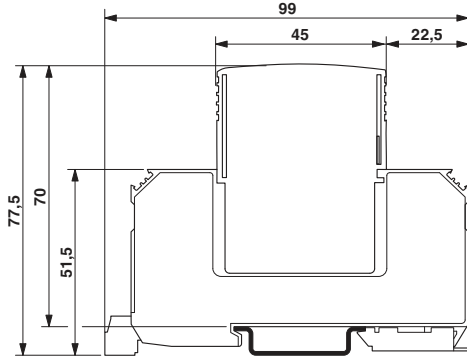
### Approval details

EAC
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## Drawings

# Lightning/surge arrester type 1/2 - F-MS-T1/T2 50/FM - 2801135

Dimensional drawing



Circuit diagram

