

## Type 2 surge protection plug - F-MS 1100/30 ST - 2800178

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Surge protection plug type 2, spark gap with high insulation voltage strength, used only as replacement plug for the corresponding complete item.



### Key commercial data

Packing unit	1 pc
Weight per Piece (excluding packing)	60.0 GRM
Custom tariff number	85363010
Country of origin	Germany

### Technical data

#### Dimensions

Height	52.5 mm
Width	17.5 mm
Depth	52 mm
Horizontal pitch	1 Div.

#### Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-40 °C ... 80 °C

#### General

Housing material	PA 6.6
Inflammability class according to UL 94	V0
Color	black
Standards for air and creepage distances	EN 60664-1
	EN 61643-11
Mounting type	On base element
Type	DIN rail module, two-section, divisible

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### Technical data

#### General

Number of positions	1
Surge protection fault message	Optical
Direction of action	N-PE

#### Protective circuit

IEC test classification	II
	T2
EN type	T2
Nominal voltage $U_N$	only suitable in connecting in series with VAL-MS 580 ST!
Maximum continuous operating voltage $U_C$	580 V AC
Max. discharge current $I_{max}$ (8/20) $\mu$ s	30 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
Front of wave sparkover voltage at 6 kV (1.2/50) $\mu$ s	$\leq 3$ kV
Insulation resistance $R_{iso}$	$> 1$ G $\Omega$
Voltage protection level $U_p$	$\leq 3$ kV
Residual voltage	$\leq 400$ V
	$\leq 250$ V (at 7.5 kA)
	$\leq 150$ V (at 3 kA)
	$\leq 100$ V (at 2 kA)
Response time	$\leq 100$ ns
Short-circuit resistance $I_p$ with max. backup fuse (effective)	80 A

#### PV protective circuit DC side

Open circuit voltage $U_{OCSTC}$	Only connected in series with VAL-MS...PV-ST
Maximum continuous operating voltage $U_{CPV}$	Only connected in series with VAL-MS...PV-ST
Short-circuit current rating $I_{SCPV}$	Only connected in series with VAL-MS...PV-ST

#### Connection, protective circuit

Connection type IN	FLASHTRAB/VALVETRAB plug-in system
Connection type OUT	FLASHTRAB/VALVETRAB plug-in system

#### Standards and Regulations

Standards/regulations	IEC 61643-1 2005
	DIN EN 61643-11 2002
	DIN EN 61643-11/A11 2007

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### 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

### Drawings

#### Circuit diagram

