F-MS 1100 ST - Type 2 surge protection plug

2909844

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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.

Commercial data

Item number	2909844
Packing unit	1 pc
Minimum order quantity	10 pc
Note	Made to order (non-returnable)
Product key	CL1321
GTIN	4055626394589
Weight per piece (including packing)	54.9 g
Weight per piece (excluding packing)	32.61 g
Country of origin	DE

Technical data

Notes

General

Note	The F-MS 1100 ST protective plug is only to be used with a VAL-MS 400 ST in series connection. It is not designed for direct use on mains voltage.
	U_{agn} > 1100 V
	At altitudes > 2000 m (amsl), a lateral distance of 2 mm must be maintained between live and grounded parts.

Product properties

Product type	Replacement plug
Product family	VALVETRAB MS
IEC test classification	II
	T2
EN type	T2
IEC power supply system	IT
Type	DIN rail module, two-section, divisible
Number of positions	1
Surge protection fault message	optical

Insulation characteristics

Overvoltage category	III
Pollution degree	2

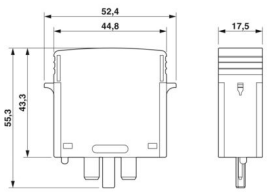
Electrical properties

Nominal frequency f_N	50 Hz
	60 Hz

Connection data

Connection method	pluggable

Dimensions

Dimensional drawing	
Width	17.5 mm
Height	52.4 mm
Depth	55.3 mm
Horizontal pitch	1 HP

Material specifications

Color	black (RAL 9005)
	gray (RAL 7042)
Flammability rating according to UL 94	V-0
CTI value of material	600
Insulating material	PA 6.6
Material group	I
Housing material	PA 6.6

Protective circuit

Mode of protection	L-PE (for IT systems without N in series with a VAL-MS plug)
Direction of action	N-PE
Nominal frequency f_N	50 Hz
	60 Hz
Maximum continuous operating voltage U_C	260 V AC
Protective conductor current I_{PE}	≤ 3 µA
Nominal discharge current I_n (8/20) µs	20 kA
Maximum discharge current I_{max} (8/20) µs	40 kA
Short-circuit current rating I_{SCCR}	25 kA (in series with a VAL-MS plug)
Voltage protection level U_p	≤ 3 kV
Front-of-wave sparkover voltage at 6 kV (1.2/50) µs	≤ 3 kV
Response time t_A	≤ 100 ns

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-40 °C ... 80 °C
Ambient temperature (storage/transport)	-40 °C ... 80 °C
Altitude	≤ 5000 m (amsl)
Permissible humidity (operation)	5 % ... 95 %
Shock (operation)	25g
Vibration (operation)	5g

Standards and regulations

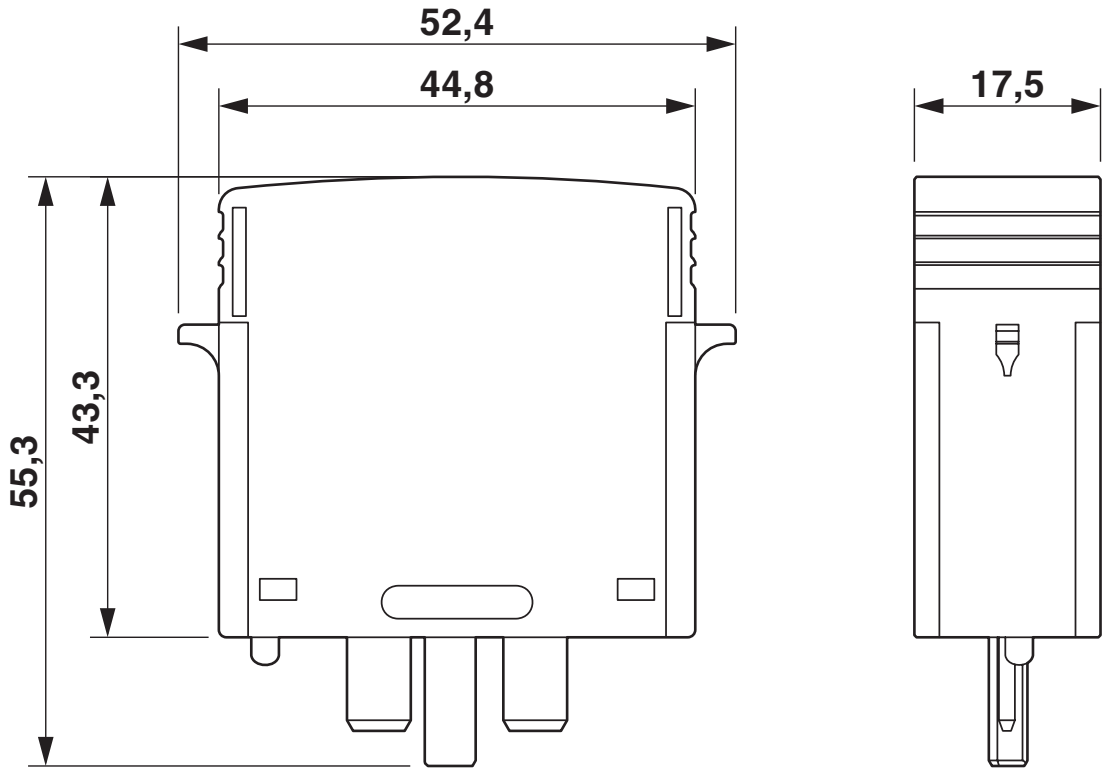
Standards/specifications	IEC 61643-11
Note	2011
Standards/specifications	EN 61643-11
Note	2012

Mounting

Mounting type	on base element

Drawings

Dimensional drawing



Circuit diagram



Classifications

ECLASS

ECLASS-13.0	27171292
ECLASS-15.0	27171292

ETIM

ETIM 10.0	EC002496

UNSPSC

UNSPSC 21.0	39121600

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions

China RoHS

Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits

EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%

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