

# VAL-MS 75 VF ST - Type 2 surge protection plug



2805318

<https://www.phoenixcontact.com/us/products/2805318>

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Surge protection plug type 2 with series connection consisting of varistor and gas-filled spark gap for VAL-MS base element, thermal monitoring, visual fault warning.

## Commercial data

Item number	2805318
Packing unit	10 pc
Minimum order quantity	1 pc
Sales key	CL18
Product key	CL1321
GTIN	4046356430869
Weight per piece (including packing)	34.47 g
Weight per piece (excluding packing)	31.52 g
Customs tariff number	85363030
Country of origin	DE

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## Technical data

### Notes

#### General

Note	The values specified for the L-L protective path are only valid in connection with VAL-MS/2+0-BE/FM/S2
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### Product properties

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

#### Insulation characteristics

Overvoltage category	III
Pollution degree	2

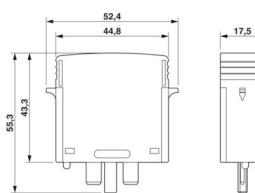
### Electrical properties

Nominal frequency $f_N$	50 Hz (60 Hz)
Nominal voltage $U_N$	5 V AC ... 48 V AC

### Connection data

Connection method	pluggable
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### Dimensions

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

### Material specifications

Color	black (RAL 9005)
Flammability rating according to UL 94	V-0
CTI value of material	600

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Insulating material	PA 6.6
Material group	I
Housing material	PA 6.6

## Protective circuit

Mode of protection	L-PE
	L-L
Direction of action	1L-N/PE
Nominal voltage $U_N$	5 V AC ... 48 V AC
Nominal frequency $f_N$	50 Hz (60 Hz)
Maximum continuous operating voltage $U_C$	75 V AC
	100 V DC
Protective conductor current $I_{PE}$	$\leq 5 \mu\text{A}$
Standby power consumption $P_C$	$\leq 1 \text{ mVA}$
Nominal discharge current $I_n$ (8/20) $\mu\text{s}$	10 kA
Maximum discharge current $I_{max}$ (8/20) $\mu\text{s}$	20 kA
Short-circuit current rating $I_{SCCR}$	10 kA
Voltage protection level $U_p$	$\leq 1.4 \text{ kV}$
Voltage protection level $U_p$ (L-L)	$\leq 1.8 \text{ kV}$
Residual voltage $U_{res}$	$\leq 0.45 \text{ kV}$ (at $I_n$ )
	$\leq 0.35 \text{ kV}$ (at 5 kA)
	$\leq 0.3 \text{ kV}$ (at 3 kA)
Residual voltage $U_{res}$ (L-L)	$\leq 0.9 \text{ kV}$ (at $I_n$ )
	$\leq 0.7 \text{ kV}$ (at 5 kA)
	$\leq 0.6 \text{ kV}$ (at 3 kA)
Front-of-wave sparkover voltage at 6 kV (1.2/50) $\mu\text{s}$	$\leq 1.4 \text{ kV}$
Response time $t_A$	$\leq 100 \text{ ns}$
Max. backup fuse with branch wiring	63 A (gG)

## 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	$\leq 2000 \text{ m}$ (amsl)
Permissible humidity (operation)	5 % ... 95 %
Shock (operation)	25g
Vibration (operation)	5g

## Approvals

### UL specifications

Maximum continuous operating voltage MCOV (L-N)	75 V AC
Maximum continuous operating voltage MCOV (L+) - (L-)	100 V DC

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Nominal discharge current $I_n$ (L-N)	10 kA
Nominal discharge current $I_n$ (L+) - (L-)	10 kA
Mode of protection	L-N
	(L+) - (L-)
Nominal voltage	48 V AC
Nominal voltage	60 V DC
Power distribution system	Single phase
Nominal frequency	50/60 Hz
Measured limiting voltage MLV (L-N)	1760 V
Measured limiting voltage MLV (L+) - (L-)	1760 V
SPD Type	4CA

## Standards and regulations

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

## Mounting

Mounting type	on base element
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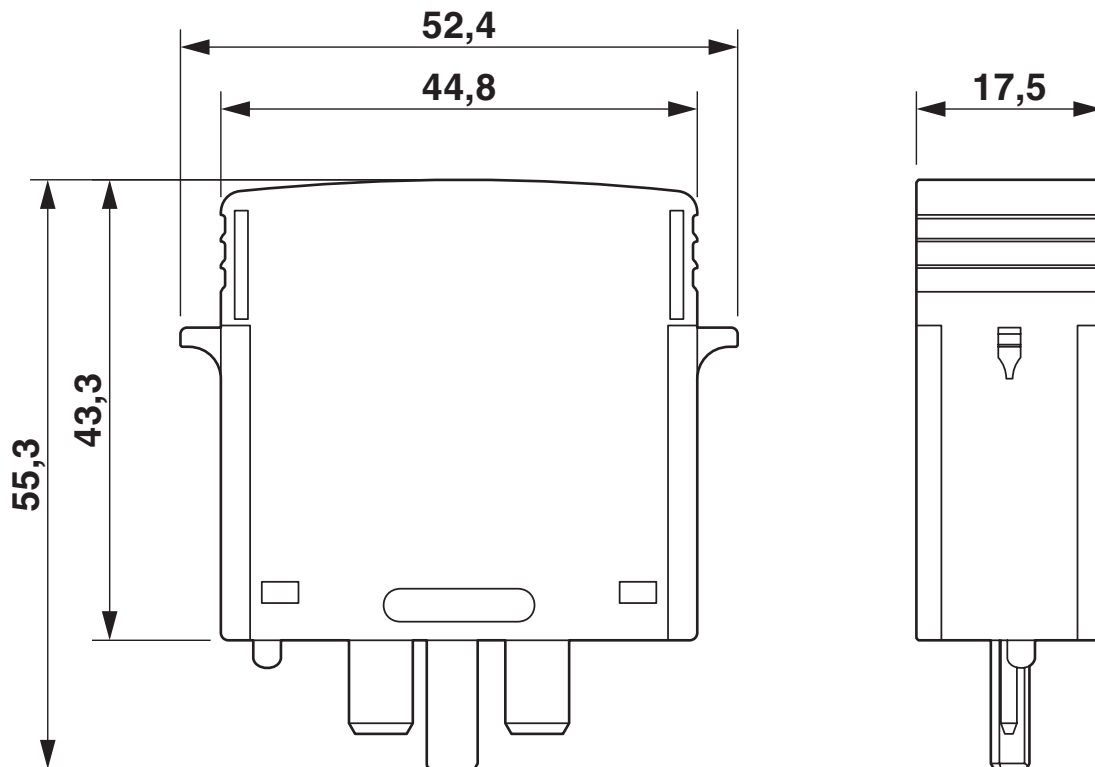
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## Drawings

Dimensional drawing



Circuit diagram



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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2805318>



**cUL Recognized**  
Approval ID: FILE E 330181



**UL Recognized**  
Approval ID: FILE E 330181

**UAE-RoHS**

Approval ID: 22-09-51251

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## Classifications

### ECLASS

ECLASS-13.0	27171292
ECLASS-15.0	27171292

### ETIM

ETIM 10.0	EC002496
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### UNSPSC

UNSPSC 21.0	39121600
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## Environmental product compliance

### EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
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### 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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