

VAL-MS-T1/T2 48/12.5 ST - Type 1/2 surge protection plug



2801242

<https://www.phoenixcontact.com/au/products/2801242>

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



L-N replacement plug for VAL-MS-T1/T2 48/12.5 plug-in lighting/surge arrester.

Your advantages

- Quality proven millions of times over in the widest range of applications
- Rapid installation with bridges, thanks to industry-standard overall width of 1 HP
- Easy testing and insulation measurement, thanks to pluggable protection modules
- Surge protection for (-) 48 V DC in lightning protection level III and IV due to discharge capacity of 12.5 kA per position
- Vibration-resistant latching ensures the plug remains firmly in place

Commercial data

Item number	2801242
Packing unit	10 pc
Minimum order quantity	1 pc
Sales key	CL1151
Product key	CL1151
Catalog page	Page 48 (C-4-2019)
GTIN	4046356750196
Weight per piece (including packing)	58.26 g
Weight per piece (excluding packing)	52.4 g
Customs tariff number	85366990
Country of origin	DE

VAL-MS-T1/T2 48/12.5 ST - Type 1/2 surge protection plug



2801242

<https://www.phoenixcontact.com/au/products/2801242>

Technical data

Product properties

Product type	Replacement plug
Product family	VALVETRAB MS
IEC test classification	I / II
	T1 / T2
EN type	T1 / T2
IEC power supply system	TN
Type	Male
Surge protection fault message	optical

Insulation characteristics

Overvoltage category	III
Pollution degree	2

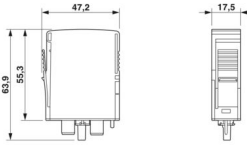
Electrical properties

Nominal frequency f_N	50 Hz (60 Hz)
Nominal voltage U_N	60 V AC
	60 V DC
	- 48 V DC (RRH)

Connection data

Connection method	pluggable
-------------------	-----------

Dimensions

Dimensional drawing	
Width	17.5 mm
Height	47 mm
Depth	67.3 mm
Horizontal pitch	1 Div.

Material specifications

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

VAL-MS-T1/T2 48/12.5 ST - Type 1/2 surge protection plug



2801242

<https://www.phoenixcontact.com/au/products/2801242>

Protective circuit

Mode of protection	L-N
	N-PE
	(L+) - (L-)
	(L+) - PE
Direction of action	L-N / L-PEN
Nominal voltage U_N	60 V AC ± 10 % (TN)
	60 V DC ± 10 %
	-48 V DC ± 10 % (RRH)
Nominal frequency f_N	50 Hz (60 Hz)
Maximum continuous voltage U_C	75 V AC
	100 V DC
Protective conductor current I_{PE}	≤ 0.6 mA
Standby power consumption P_C	≤ 45 mVA
Nominal discharge current I_n (8/20) μ s	12.5 kA
Maximum discharge current I_{max} (8/20) μ s	30 kA
Impulse discharge current (10/350) μ s, charge	6.25 As
Impulse discharge current (10/350) μ s, specific energy	39 kJ/ Ω
Impulse discharge current (10/350) μ s, peak value I_{imp}	12.5 kA
Short-circuit current rating I_{SCCR}	25 kA
Voltage protection level U_p	≤ 0.4 kV
Residual voltage U_{res}	≤ 0.4 kV (at I_n)
	≤ 0.35 kV (at 10 kA)
	≤ 0.3 kV (at 5 kA)
	≤ 0.275 kV (at 4 kA)
	≤ 0.25 kV (at 3 kA)
TOV behavior at U_T	100 V AC (5 s / withstand mode)
	130 V DC (5 s / withstand mode)
Response time t_A	≤ 25 ns
Max. backup fuse with branch wiring	160 A (gG)

Additional technical data

Maximum discharge current I_{max} (8/20) μ s	65 kA
--	-------

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	≤ 2000 m (amsl)
Permissible humidity (operation)	5 % ... 95 %
Shock (operation)	30g (Half-sine / 11 ms / 3x $\pm X$, $\pm Y$, $\pm Z$)
Vibration (operation)	7.5g (10 ... 500 Hz / 2.5 h / X, Y, Z)

VAL-MS-T1/T2 48/12.5 ST - Type 1/2 surge protection plug



2801242

<https://www.phoenixcontact.com/au/products/2801242>

Approvals

UL specifications

Maximum continuous operating voltage MCOV (L+) - (L-)	100 V DC
Short-circuit current rating (SCCR)	5 kA
Voltage protection rating VPR (L+) - (L-)	400 V
Nominal discharge current I_n (L+) - (L-)	20 kA
Mode of protection	(L+) - (L-)
Nominal voltage	60 V DC
SPD Type	1CA

Standards and regulations

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

Mounting

Mounting type	on base element
---------------	-----------------

VAL-MS-T1/T2 48/12.5 ST - Type 1/2 surge protection plug

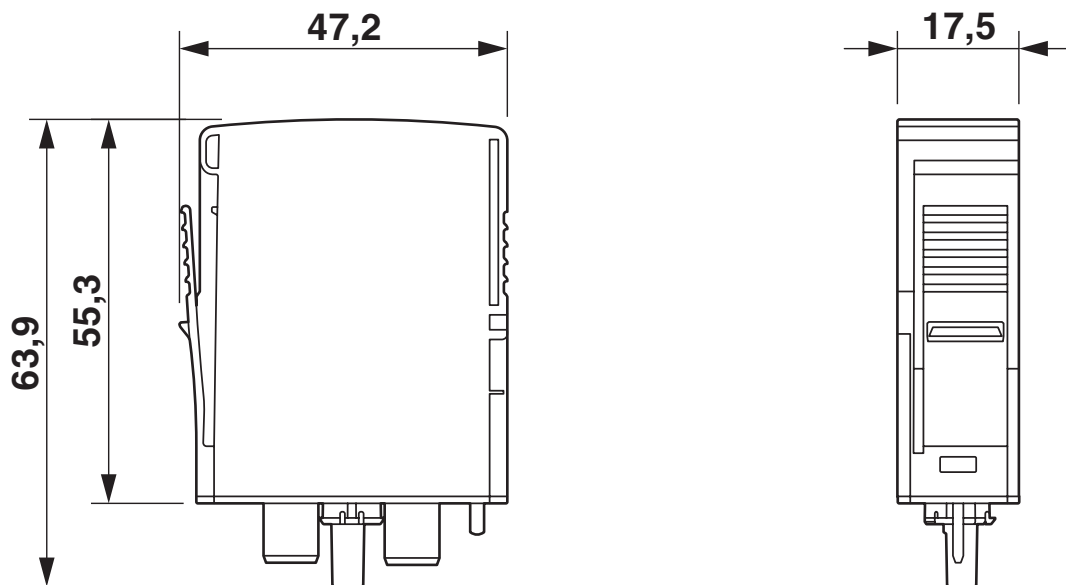


2801242

<https://www.phoenixcontact.com/au/products/2801242>

Drawings

Dimensional drawing



Circuit diagram



VAL-MS-T1/T2 48/12.5 ST - Type 1/2 surge protection plug



2801242

<https://www.phoenixcontact.com/au/products/2801242>

Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/au/products/2801242>



cUL Recognized
Approval ID: FILE E 330181



UL Recognized
Approval ID: FILE E 330181



IECEE CB Scheme
Approval ID: DE1-51927

CCA

Approval ID: DE1-34244



KEMA-KEUR
Approval ID: 71-130623



IECEE CB Scheme
Approval ID: DE1-54090



VDE approval of drawings
Approval ID: 40037097



KEMA-KEUR
Approval ID: 2168290.01

CCA

Approval ID: DE1-34421

UAE-RoHS

Approval ID: 23-10-88705

VAL-MS-T1/T2 48/12.5 ST - Type 1/2 surge protection plug



2801242
<https://www.phoenixcontact.com/au/products/2801242>

Classifications

ECLASS

ECLASS-13.0	27171292
-------------	----------

ETIM

ETIM 9.0	EC002496
----------	----------

UNSPSC

UNSPSC 21.0	39121600
-------------	----------

VAL-MS-T1/T2 48/12.5 ST - Type 1/2 surge protection plug



2801242

<https://www.phoenixcontact.com/au/products/2801242>

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%
-------------------------------------	----------------------------

Phoenix Contact 2025 © - all rights reserved
<https://www.phoenixcontact.com>

PHOENIX CONTACT PTY Ltd
Unit 7, 2-8 South Street
Rydalmere NSW 2116
1300 786 411
customerservice@phoenixcontact.com.au