

# VAL-SEC-T2-48DC-P - Type 2 surge protection plug



2907877

<https://www.phoenixcontact.com/us/products/2907877>

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.



Replacement plug for surge protective devices from the VALVETRAB SEC product range for DC power sources.

## Commercial data

Item number	2907877
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	CL01
Product key	CL1353
Catalog page	Page 58 (C-4-2019)
GTIN	4055626245027
Weight per piece (including packing)	52.3 g
Weight per piece (excluding packing)	49.6 g
Customs tariff number	85363090
Country of origin	DE

# VAL-SEC-T2-48DC-P - Type 2 surge protection plug



2907877

<https://www.phoenixcontact.com/us/products/2907877>

## Technical data

### Product properties

IEC test classification	II
	T2
EN type	T2
IEC power supply system	DC
Type	Male
Product type	Replacement plug
Product family	SEC Family
Number of positions	1
Surge protection fault message	optical

### Insulation characteristics

Overvoltage category	III
Pollution degree	2

### Electrical properties

Nominal voltage $U_N$	48 V DC ... 60 V DC
-----------------------	---------------------

### Connection data

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

### Dimensions

Dimensional drawing	
Width	11.7 mm
Height	46.4 mm
Depth	59.4 mm
Horizontal pitch	0.6 Div.

### Material specifications

Flammability rating according to UL 94	V-0
CTI value of material	600
Insulating material	PA6.6-FR 20% GF
	PBT-FR
Material group	I
Housing material	PA 6.6-FR 20 % GF
	PBT-FR

### Protective circuit

# VAL-SEC-T2-48DC-P - Type 2 surge protection plug



2907877

<https://www.phoenixcontact.com/us/products/2907877>

Mode of protection	(DC+) - (DC-)
	(DC+) - PE
	(DC-) - PE
Direction of action	(DC+/DC-) - PE
Nominal voltage $U_N$	60 V AC (TN)
	48 V DC ... 60 V DC
Maximum continuous voltage $U_C$	75 V DC
	75 V AC
Residual current $I_{PE}$	$\leq 50 \mu\text{A DC}$
Nominal discharge current $I_n$ (8/20) $\mu\text{s}$	20 kA
Maximum discharge current $I_{max}$ (8/20) $\mu\text{s}$	40 kA
Impulse discharge current (10/350) $\mu\text{s}$ , charge	2 As
Impulse discharge current (10/350) $\mu\text{s}$ , specific energy	4 kJ/ $\Omega$
Impulse discharge current (10/350) $\mu\text{s}$ , peak value $I_{imp}$	4 kA
Short-circuit current rating $I_{SCCR}$	0.2 kA DC (without backup fuse)
	6 kA DC (for 20 A gG/B backup fuse)
	10 kA AC (C63 A miniature circuit breaker)
	25 kA AC (for a backup fuse of up to 315 A gG)
	50 kA AC (for a backup fuse of up to 200 A gG)
Voltage protection level $U_p$	$\leq 0.5 \text{ kV}$
Residual voltage $U_{res}$	$\leq 0.5 \text{ kV}$ (at $I_n$ )
	$\leq 0.4 \text{ kV}$ (at 10 kA)
	$\leq 0.35 \text{ kV}$ (at 5 kA)
	$\leq 0.3 \text{ kV}$ (at 2 kA)
TOV behavior at $U_T$	87 V DC (5 s / withstand mode)
	100 V AC (5 s / withstand mode)
Response time $t_A$	$\leq 25 \text{ ns}$
Max. backup fuse with V-type through wiring	20 A DC (gG / B at $I_{SCCR} > 200 \text{ A}$ )
Max. backup fuse with branch wiring	20 A DC (gG / B at $I_{SCCR} > 200 \text{ A}$ )
	315 A AC

## 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	$\leq 6000 \text{ m}$ (amsl)
Permissible humidity (operation)	5 % ... 95 %
Shock (operation)	30g (Half-sine / 11 ms / 3x $\pm X$ , $\pm Y$ , $\pm Z$ )
Vibration (operation)	5g (10 ... 500 Hz / 2.5 h / X, Y, Z)

## Approvals

### UL specifications

# VAL-SEC-T2-48DC-P - Type 2 surge protection plug



2907877

<https://www.phoenixcontact.com/us/products/2907877>

Maximum continuous operating voltage MCOV	75 V DC
Short-circuit current rating (SCCR)	50 kA
Voltage protection rating VPR	400 V
Nominal discharge current $I_n$	20 kA
Mode of protection	(DC+) - G
	(DC-) - G
Nominal voltage	48 V DC
Power distribution system	DC
SPD Type	1CA

## Standards and regulations

Standards/specifications	IEC 61643-11
Note	2011

### EN 61643-11

Standards/specifications	EN 61643-11
Note	2012

## Mounting

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

# VAL-SEC-T2-48DC-P - Type 2 surge protection plug

2907877

<https://www.phoenixcontact.com/us/products/2907877>

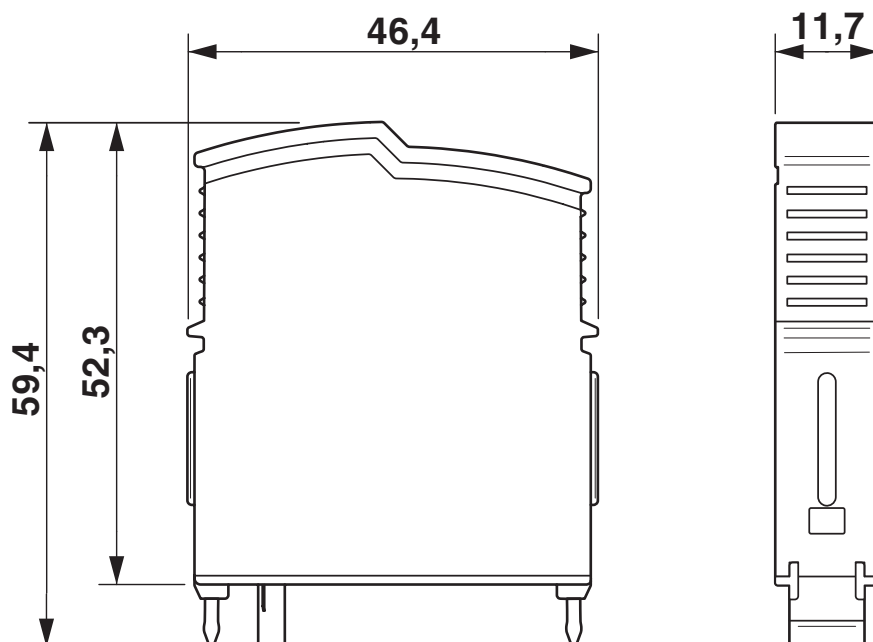


## Drawings

Circuit diagram



Dimensional drawing



# VAL-SEC-T2-48DC-P - Type 2 surge protection plug



2907877

<https://www.phoenixcontact.com/us/products/2907877>

## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2907877>



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



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



**EAC**  
Approval ID: RU C-DE.\*09.B.00169

**UAE-RoHS**

Approval ID: 22-09-50946

**cULus Recognized**

# VAL-SEC-T2-48DC-P - Type 2 surge protection plug



2907877

<https://www.phoenixcontact.com/us/products/2907877>

## Classifications

### ECLASS

ECLASS-11.0	27130890
ECLASS-13.0	27171292

### ETIM

ETIM 8.0	EC002496
----------	----------

### UNSPSC

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

# VAL-SEC-T2-48DC-P - Type 2 surge protection plug



2907877

<https://www.phoenixcontact.com/us/products/2907877>

## Environmental product compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values



2907877

<https://www.phoenixcontact.com/us/products/2907877>

## Accessories

### EML (20XE)R - Label

0803452

<https://www.phoenixcontact.com/us/products/0803452>



Label, Roll, white, unlabeled, can be labeled with: THERMOMARK E.300 (D)/600 (D), THERMOMARK ROLL 2.0, THERMOMARK ROLL, THERMOMARK ROLL X1, THERMOMARK ROLLMaster 300/600, THERMOMARK X1.2, mounting type: adhesive, lettering field size: continuous x 20 mm

---

### EML (20XE)R YE - Label

0803453

<https://www.phoenixcontact.com/us/products/0803453>



Label, Roll, yellow, unlabeled, can be labeled with: THERMOMARK E.300 (D)/600 (D), THERMOMARK ROLL 2.0, THERMOMARK ROLL, THERMOMARK ROLL X1, THERMOMARK ROLLMaster 300/600, THERMOMARK X1.2, mounting type: adhesive, lettering field size: continuous x 20 mm

# VAL-SEC-T2-48DC-P - Type 2 surge protection plug

2907877

<https://www.phoenixcontact.com/us/products/2907877>



## X-PEN 0,35 - Marker pen

0811228

<https://www.phoenixcontact.com/us/products/0811228>



Marker pen without ink cartridge, for manual labeling of markers, labeling extremely wipe-proof, line thickness 0.35 mm

---

Phoenix Contact 2023 © - all rights reserved

<https://www.phoenixcontact.com>

Phoenix Contact USA  
586 Fulling Mill Road  
Middletown, PA 17057, United States  
(+717) 944-1300  
[info@phoenixcon.com](mailto:info@phoenixcon.com)