

# VAL-US-SPP-120/50-P - Type 2 surge protection plug



1790743

<https://www.phoenixcontact.com/us/products/1790743>

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.



Surge protection plug for use with VAL-SPP or VAL-US-SPP base elements, UL Recognized type 1 component and IEC type 2, with varistor and thermal disconnect device, plug-in, with local status indicator (green/red).

## Your advantages

- Universal surge protection plug with UL Recognized type 1 and IEC type 2
- Clear status indication with local optical green/red display
- Safe installation with mechanical coding

## Commercial data

|                                      |               |
|--------------------------------------|---------------|
| Item number                          | 1790743       |
| Packing unit                         | 10 pc         |
| Minimum order quantity               | 1 pc          |
| Sales key                            | CL17          |
| Product key                          | CL138Z        |
| GTIN                                 | 4067923410251 |
| Weight per piece (including packing) | 52.8 g        |
| Weight per piece (excluding packing) | 49 g          |
| Customs tariff number                | 85363030      |
| Country of origin                    | DE            |

# VAL-US-SPP-120/50-P - Type 2 surge protection plug



1790743

<https://www.phoenixcontact.com/us/products/1790743>

## Technical data

### Product properties

|                                |                  |
|--------------------------------|------------------|
| Product type                   | Replacement plug |
| Product family                 | VAL-SPP          |
| IEC test classification        | II               |
|                                | T2               |
| EN type                        | T2               |
| IEC power supply system        | TN-C             |
|                                | TN-S             |
|                                | TT               |
| Type                           | Male             |
| Number of positions            | 1                |
| End-of-life mode               | OCM              |
| Surge protection fault message | optical          |
| Number of ports                | One              |

### Insulation characteristics

|                      |     |
|----------------------|-----|
| Overvoltage category | III |
| Pollution degree     | 3   |

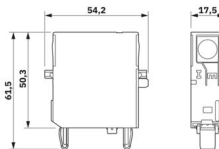
### Electrical properties

|                         |               |
|-------------------------|---------------|
| Nominal frequency $f_N$ | 50 Hz (60 Hz) |
|-------------------------|---------------|

### Connection data

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

### Dimensions

|                     |                                                                                      |
|---------------------|--------------------------------------------------------------------------------------|
| Dimensional drawing |  |
| Width               | 17.5 mm                                                                              |
| Height              | 54.2 mm                                                                              |
| Depth               | 61.5 mm                                                                              |
| Horizontal pitch    | 1 Div.                                                                               |

### Material specifications

|                                        |                       |
|----------------------------------------|-----------------------|
| Color                                  | light gray (RAL 7035) |
| Flammability rating according to UL 94 | V-0                   |
| CTI value of material                  | 600                   |
| Insulating material                    | PA 6.6-FR 20 % GF     |

# VAL-US-SPP-120/50-P - Type 2 surge protection plug



1790743

<https://www.phoenixcontact.com/us/products/1790743>

|                  |                   |
|------------------|-------------------|
| Material group   | I                 |
| Housing material | PA 6.6-FR 20 % GF |

## Protective circuit

|                                                |                                        |
|------------------------------------------------|----------------------------------------|
| Mode of protection                             | L-N                                    |
|                                                | L-PEN                                  |
| Nominal voltage $U_N$                          | 120 V AC $\pm 10\%$ (TN-C, TN-S)       |
|                                                | 120 V AC $\pm 10\%$ (TT)               |
| Nominal frequency $f_N$                        | 50 Hz (60 Hz)                          |
| Maximum continuous operating voltage $U_C$     | 175 V AC                               |
| Protective conductor current $I_{PE}$          | $\leq 0.4$ mA                          |
| Standby power consumption $P_C$                | $\leq 70$ mVA                          |
| Nominal discharge current $I_n$ (8/20) $\mu s$ | 20 kA                                  |
| Short-circuit current rating $I_{SCCR}$        | 50 kA                                  |
| Voltage protection level $U_p$                 | $\leq 1$ kV                            |
| Residual voltage $U_{res}$                     | $\leq 1$ kV (at $I_n$ )                |
| TOV behavior at $U_T$                          | 175 V AC (5 s / withstand mode)        |
|                                                | 230 V AC (120 min / safe failure mode) |
| Response time $t_A$                            | $\leq 25$ ns                           |
| Max. backup fuse with branch wiring            | 315 A (gG)                             |

## Environmental and real-life conditions

### Ambient conditions

|                                         |                                                           |
|-----------------------------------------|-----------------------------------------------------------|
| Degree of protection                    | IP20C (Installed)                                         |
| Ambient temperature (operation)         | -40 °C ... 85 °C                                          |
| Ambient temperature (storage/transport) | -40 °C ... 85 °C                                          |
| Ambient temperature (assembly)          | -5 °C ... 50 °C                                           |
| Altitude                                | $\leq 2000$ m (amsl)                                      |
| Permissible humidity (operation)        | 5 % ... 95 %                                              |
| Shock (operation)                       | 25g (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

|                                           |                        |
|-------------------------------------------|------------------------|
| Maximum continuous operating voltage MCOV | 175 V AC               |
| Short-circuit current rating (SCCR)       | 200 kA                 |
| Voltage protection rating VPR             | 700 V                  |
| Nominal discharge current $I_n$           | 20 kA                  |
| Maximum Surge Current per Phase           | 1x 50 kA (IEEE C62.73) |
| Mode of protection                        | Ld-Ld                  |
| Nominal voltage                           | 120 V AC               |
| Nominal frequency                         | 50/60 Hz               |
| SPD Type                                  | 1CA                    |

# VAL-US-SPP-120/50-P - Type 2 surge protection plug



1790743

<https://www.phoenixcontact.com/us/products/1790743>

## Standards and regulations

|                          |                 |
|--------------------------|-----------------|
| Standards/specifications | IEC 61643-11    |
| Note                     | 2011            |
| Standards/specifications | EN 61643-11     |
| Note                     | 2012 + A11:2018 |

## Mounting

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

# VAL-US-SPP-120/50-P - Type 2 surge protection plug

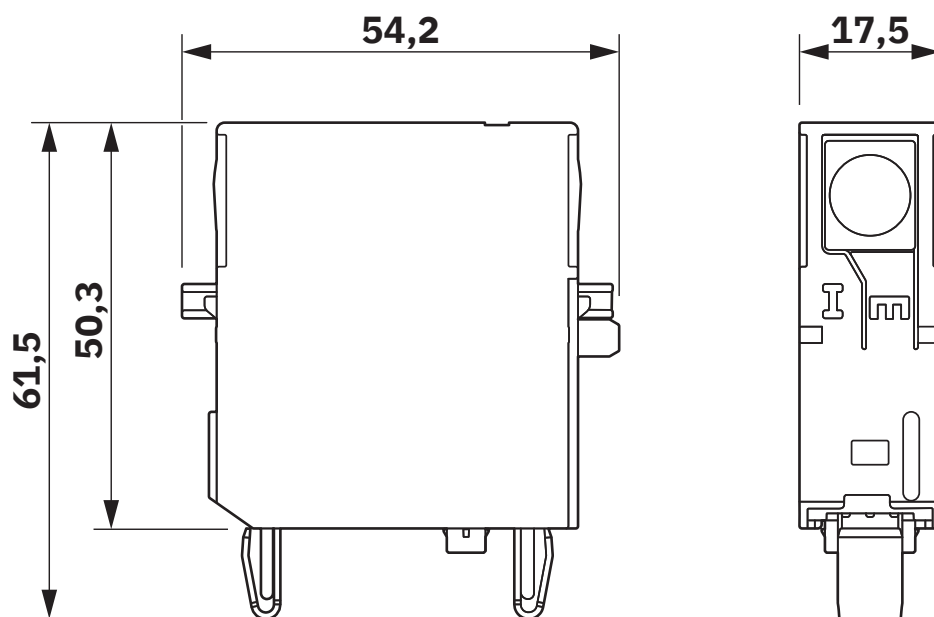


1790743

<https://www.phoenixcontact.com/us/products/1790743>

## Drawings

Dimensional drawing



Circuit diagram



# VAL-US-SPP-120/50-P - Type 2 surge protection plug



1790743

<https://www.phoenixcontact.com/us/products/1790743>

## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1790743>



**cULus Recognized**

Approval ID: E330181-20240716

# VAL-US-SPP-120/50-P - Type 2 surge protection plug



1790743

<https://www.phoenixcontact.com/us/products/1790743>

## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-13.0 | 27171292 |
| ECLASS-15.0 | 27171292 |

### ETIM

|           |          |
|-----------|----------|
| ETIM 10.0 | EC002496 |
|-----------|----------|

# VAL-US-SPP-120/50-P - Type 2 surge protection plug



1790743

<https://www.phoenixcontact.com/us/products/1790743>

## 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.) | Benzene-1,2,4-tricarboxylic acid 1,2 anhydride(CAS: 552-30-7) |
|-------------------------------------|---------------------------------------------------------------|

Phoenix Contact 2026 © - 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)