

# VAL-US-48/40/1+1V-FM - Surge protection device



2910344

<https://www.phoenixcontact.com/us/products/2910344>

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 protective device, two channels with remote indicator contact for 48 V DC, 2-wire plus ground

## Your advantages

- Single-channel, DIN-rail mountable protective devices
- Disconnect device on each individual plug
- Mechanical coding of all slots
- Consists of base element and plug
- Optical, mechanical status indication for the individual arresters
- Base element with/without floating remote indication contact

## Commercial data

|                                      |               |
|--------------------------------------|---------------|
| Item number                          | 2910344       |
| Packing unit                         | 1 pc          |
| Minimum order quantity               | 1 pc          |
| Sales key                            | CL17          |
| Product key                          | CL132U        |
| GTIN                                 | 4055626444864 |
| Weight per piece (including packing) | 214.3 g       |
| Weight per piece (excluding packing) | 190 g         |
| Customs tariff number                | 85363030      |
| Country of origin                    | DE            |

## Technical data

### Product properties

|                                |  |
|--------------------------------|--|
| Product type                   | Surge protection for NEMA power supply units |
| Product family                 | VALVETRAB US                                 |
| IEC test classification        | II   |
|                                | T2   |
| EN type                        | T2   |
| IEC power supply system        | DC   |
| Type                           | DIN rail module, two-section, divisible      |
| Number of positions            | 2  |
| Surge protection fault message | Optical, remote indicator contact            |
| Number of ports                | One  |

### Insulation characteristics

|                      |     |
|----------------------|-----|
| Overvoltage category | III |
| Pollution degree     | 2   |

### Electrical properties

#### Indicator/remote signaling

|                    |                                |
|--------------------|--------------------------------|
| Connection name    | Remote fault indicator contact |
| Switching function | Changeover contact             |
| Operating voltage  | 5 V AC ... 250 V AC            |
|                    | 30 V DC                        |
| Operating current  | 5 mA AC ... 1.5 A AC           |
|                    | 1 A DC                         |

### Connection data

|                                  |  |
|----------------------------------|--|
| Connection method                | Screw connection                                     |
| Screw thread                     | M5   |
| Tightening torque                | 4.5 Nm (1.5 mm <sup>2</sup> ... 16 mm <sup>2</sup> ) |
|                                  | 4.5 Nm (25 mm <sup>2</sup> ... 35 mm <sup>2</sup> )  |
| Stripping length                 | 16 mm  |
| Conductor cross-section flexible | 1.5 mm <sup>2</sup> ... 25 mm <sup>2</sup>           |
| Conductor cross-section rigid    | 1.5 mm <sup>2</sup> ... 35 mm <sup>2</sup>           |
| Conductor cross-section AWG      | 15 ... 2   |

#### Remote fault indicator contact

|                                  |  |
|----------------------------------|--|
| Connection method                | Screw connection                             |
| Screw thread                     | M2   |
| Tightening torque                | 0.25 Nm                                      |
| Stripping length                 | 7 mm   |
| Conductor cross-section flexible | 0.14 mm <sup>2</sup> ... 1.5 mm <sup>2</sup> |
| Conductor cross-section rigid    | 0.14 mm <sup>2</sup> ... 1.5 mm <sup>2</sup> |

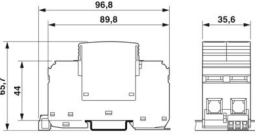
# VAL-US-48/40/1+1V-FM - Surge protection device

2910344

<https://www.phoenixcontact.com/us/products/2910344>

|                             |           |
|-----------------------------|-----------|
| Conductor cross-section AWG | 28 ... 16 |
|-----------------------------|-----------|

## Dimensions

|                     |  |
|---------------------|--|
| Dimensional drawing |  |
| Width               | 35.6 mm  |
| Height              | 96.8 mm  |
| Depth               | 65.7 mm (incl. DIN rail 7.5 mm)  |
| Horizontal pitch    | 2 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<br>PBT    |

## Mechanical properties

|                 |    |
|-----------------|----|
| Mechanical data |    |
| Open side panel | No |

## Protective circuit

|  |                           |
|--|---------------------------|
| Direction of action                                | 1L-N & N-GND              |
| Nominal voltage $U_N$                              | 60 V AC $\pm 10\%$ (TN-S) |
|  | 60 V DC $\pm 10\%$        |
|  | -48 V DC $\pm 10\%$ (RRH) |
| Maximum continuous operating voltage $U_C$         | 100 V DC                  |
|  | 75 V AC                   |
| Rated load current $I_L$                           | 80 A                      |
| Protective conductor current $I_{PE}$              | $\leq 0.45$ mA            |
| Nominal discharge current $I_n$ (8/20) $\mu$ s     | 15 kA                     |
| Maximum discharge current $I_{max}$ (8/20) $\mu$ s | 40 kA                     |
| Short-circuit current rating $I_{SCCR}$            | 5 kA                      |
| Voltage protection level $U_p$                     | $\leq 0.55$ kV            |
| Response time $t_A$                                | $\leq 25$ ns              |
| Max. backup fuse with V-type through wiring        | 80 A (gG)                 |
| Max. backup fuse with branch wiring                | 125 A (gG)                |

## Environmental and real-life conditions

# VAL-US-48/40/1+1V-FM - Surge protection device



2910344

<https://www.phoenixcontact.com/us/products/2910344>

## Ambient conditions

|   |   |
|---|---|
| Degree of protection                    | IP20 (only when all terminal points are used) |
| 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)                       | 25g (Half-sine / 11 ms / 3x ±X, ±Y, ±Z)       |
| Vibration (operation)                   | 5g (10 ... 500 Hz / 2.5 h / X, Y, Z)          |

## Approvals

### UL specifications

|                                 |                            |
|---------------------------------|----------------------------|
| UL type                         | type 4                     |
| Nominal discharge current $I_n$ | 20 kA                      |
| Maximum Surge Current per Phase | 40 kA                      |
| Mode of protection              | (DC+) - (DC-)<br>(DC+) - G |
| Nominal voltage                 | 60 V DC                    |
| Power distribution system       | DC                         |
| SPD Type                        | 4CA                        |

### UL indicator/remote signaling

|                      |          |
|----------------------|----------|
| Operating voltage    | 125 V AC |
| AC operating current | 1 A AC   |

### UL connection data

|                             |                         |
|-----------------------------|-------------------------|
| Tightening torque           | 30 lb <sub>f</sub> ·in. |
| Conductor cross-section AWG | 14 ... 2                |

## Standards and regulations

### Air clearances and creepage distances

|                          |                          |
|--------------------------|--------------------------|
| Standards/regulations    | EN 60664-1 / EN 61643-11 |
| Standards/specifications | IEC 61643-11             |
| Note                     | 2011                     |
| Standards/specifications | EN 61643-11              |
| Note                     | 2012                     |

## Mounting

|               |                 |
|---------------|-----------------|
| Mounting type | DIN rail: 35 mm |
|---------------|-----------------|

# VAL-US-48/40/1+1V-FM - Surge protection device

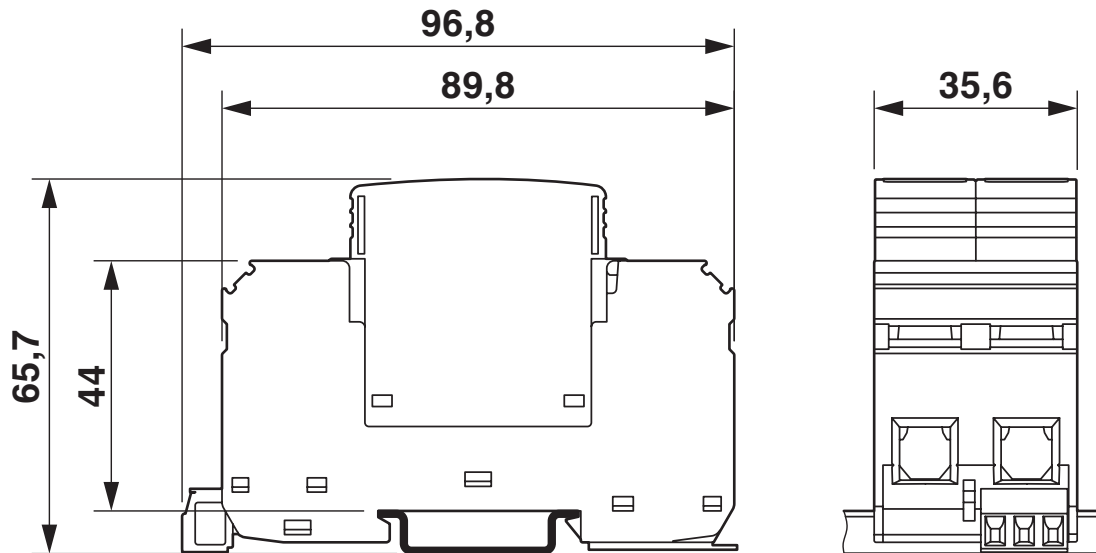


2910344

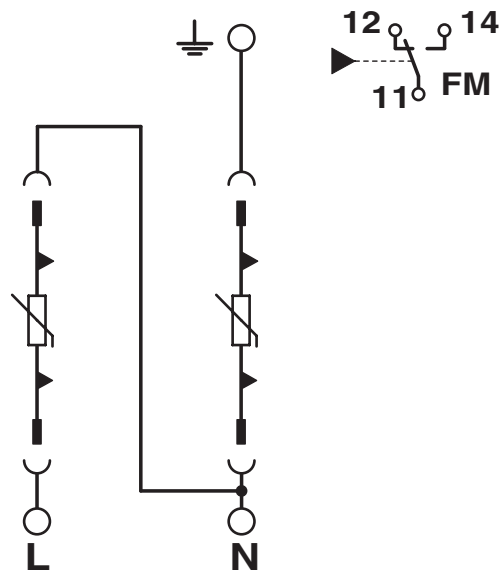
<https://www.phoenixcontact.com/us/products/2910344>

## Drawings

Dimensional drawing



Circuit diagram



Base marked 'L' and 'N' for AC applications can be connected to '-' and '+' respectively for DC applications.

# VAL-US-48/40/1+1V-FM - Surge protection device



2910344

<https://www.phoenixcontact.com/us/products/2910344>

## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2910344>



**cUL Recognized**

Approval ID: FILE E 330181



**UL Recognized**

Approval ID: FILE E 330181

# VAL-US-48/40/1+1V-FM - Surge protection device



2910344

<https://www.phoenixcontact.com/us/products/2910344>

## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-13.0 | 27171202 |
| ECLASS-15.0 | 27171202 |

### ETIM

|           |          |
|-----------|----------|
| ETIM 10.0 | EC000941 |
|-----------|----------|

### UNSPSC

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

# VAL-US-48/40/1+1V-FM - Surge protection device



2910344

<https://www.phoenixcontact.com/us/products/2910344>

## 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 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)