# GDT-US-NG/80-P - Type 1 surge protection plug

2910332

https://www.phoenixcontact.com/us/products/2910332

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UL Recognized type 1 SPD and IEC type 2 surge protection plug with a gas discharge tube and thermal disconnect for use with VAL-US base elements, mechanical and visual fault warning

## Product description

Surge protective device replacement plug

## Commercial data

| | |
|---|---|
| Item number | 2910332 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales key | CL18 |
| Product key | CL1151 |
| Catalog page | Page 93 (C-4-2019) |
| GTIN | 4055626445328 |
| Weight per piece (including packing) | 78.2 g |
| Weight per piece (excluding packing) | 36 g |
| Customs tariff number | 85363030 |
| Country of origin | DE |

## Technical data

### Notes

| | |
|---|---|
| General | Used in: |

### Product properties

| | |
|---|---|
| Product type | Replacement plug |
| Product family | VALVETRAB MS |
| IEC test classification | II |
| | T2 |
| EN type | T2 |
| Type | Male |
| Number of positions | 1 |
| Surge protection fault message | optical |

Insulation characteristics

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

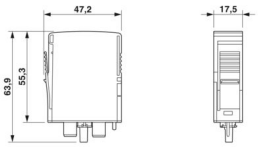
### Electrical properties

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

### Connection data

| | |
|---|---|
| Connection method | VALVETRAB plug-in system |

### Dimensions

| | |
|---|---|
| Dimensional drawing |   |
| Width | 17.7 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 |

## Protective circuit

| | |
|---|---|
| Mode of protection | N-PE |
| Direction of action | N-PE |
| Nominal voltage $U_N$ | 240/415 V AC (TN-S) |
| | 240/415 V AC (TT) |
| Nominal frequency $f_N$ | 50 Hz (60 Hz) |
| Maximum continuous voltage $U_C$ | 264 V AC |
| Residual current $I_{PE}$ | ≤ 5 µA |
| Standby power consumption $P_C$ | ≤ 1.30 mVA |
| Nominal discharge current $I_n$ (8/20) µs | 50 kA |
| Maximum discharge current $I_{max}$ (8/20) µs | 50 kA |
| Follow current interrupt rating $I_{fi}$ | 100 A (260 V) |
| Voltage protection level $U_p$ | ≤ 1.7 kV |
| Residual voltage $U_{res}$ | ≤ 0.6 kV (at $I_n$) |
| | ≤ 0.5 kV (at 10 kA) |
| | ≤ 0.5 kV (at 5 kA) |
| | ≤ 0.4 kV (at 3 kA) |
| Front of wave sparkover voltage at 6 kV (1.2/50) µs | ≤ 1.7 kV |
| TOV behavior at $U_T$ | 1200 V AC (200 ms / withstand mode) |
| Response time $t_A$ | ≤ 100 ns |

## 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 ±X, ±Y, ±Z) |
| Vibration (operation) | 7.5g (10 ... 500 Hz / 2.5 h / X, Y, Z) |

## Approvals

### UL specifications

| | |
|---|---|
| Maximum continuous operating voltage MCOV | 264 V AC |
| Voltage protection rating VPR | 1200 V |
| UL type | type 1 |
| Nominal discharge current $I_n$ | 20 kA |
| Maximum Surge Current per Phase | 80 kA |
| Mode of protection | N-G |
| Nominal voltage | 240 V AC |
| Power distribution system | Single phase |
| Nominal frequency | 50/60 Hz |

| | |
|---|---|
| SPD Type | 1CA |

## Standards and regulations

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

## Mounting

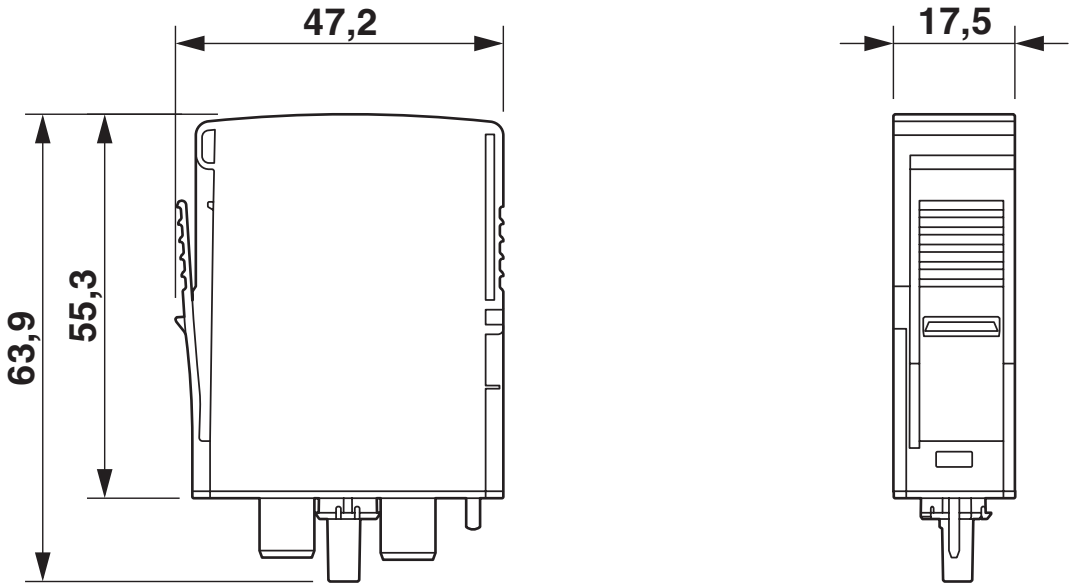
| | |
|---|---|
| Mounting type | on base element |

## Drawings

Circuit diagram



Dimensional drawing



## Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/2910332

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

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

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## Classifications

### ECLASS

| | |
|---|---|
| ECLASS-11.0 | 27130890 |
| ECLASS-13.0 | 27171292 |

### ETIM

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

### UNSPSC

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

## 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% |

## Accessories

### VAL-US-120/65/1+1-FM - Type 1 surge protection device

2910356

https://www.phoenixcontact.com/us/products/2910356



Surge protective device, two channel with remote indicator contact for 120 V AC, 2-wire plus ground.

### VAL-US-120/65/2+1-FM - Type 1 surge protection device

2910358

https://www.phoenixcontact.com/us/products/2910358



Surge protective device, three channel with remote indicator contact for 120/240 V split phase AC, 3-wire plus ground.

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## VAL-US-120/65/3+1-FM - Type 1 surge protection device

2910360

https://www.phoenixcontact.com/us/products/2910360



Surge protective device, four channel with remote indicator contact for 120/208 V Wye three phase AC, 4-wire plus ground.

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