

# GDT-US-NG/40-P - Type 1 surge protection plug



2910342

<https://www.phoenixcontact.com/us/products/2910342>

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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

## Your advantages

- Thermal disconnect device for each individual plug
- Optical, mechanical status indication for the individual arresters
- Mechanical coding of all slots
- Consists of base element and plug
- Pluggable

## Commercial data

|                                      |               |
|--------------------------------------|---------------|
| Item number                          | 2910342       |
| Packing unit                         | 1 pc          |
| Minimum order quantity               | 1 pc          |
| Sales key                            | CL18          |
| Product key                          | CL1321        |
| GTIN                                 | 4055626444840 |
| Weight per piece (including packing) | 42.5 g        |
| Weight per piece (excluding packing) | 40 g          |
| Customs tariff number                | 85363030      |
| Country of origin                    | DE            |

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## Technical data

### Product properties

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

### Insulation characteristics

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

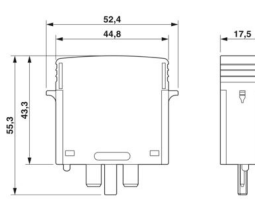
### Electrical properties

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

### Connection data

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

### Dimensions

|                     |  |
|---------------------|--|
| Dimensional drawing |  |
| Width               | 17.5 mm  |
| Height              | 52.4 mm  |
| Depth               | 55.3 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<br>PBT    |

### Protective circuit

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|   |                                     |
|---|-------------------------------------|
| Mode of protection  | N-PE                                |
| Direction of action   | N-PE                                |
| Nominal voltage $U_N$   | 277/480 V AC (TN-S)                 |
|   | 277/480 V AC (TT)                   |
| Nominal frequency $f_N$   | 50 Hz (60 Hz)                       |
| Maximum continuous operating voltage $U_C$                      | 305 V AC                            |
| Protective conductor current $I_{PE}$                           | $\leq 5 \mu\text{A}$                |
| Standby power consumption $P_C$                                 | $\leq 1.5 \text{ mVA}$              |
| Nominal discharge current $I_n$ (8/20) $\mu\text{s}$            | 20 kA                               |
| Maximum discharge current $I_{\text{max}}$ (8/20) $\mu\text{s}$ | 40 kA                               |
| Follow current interrupt rating $I_{fi}$                        | 100 A                               |
| Voltage protection level $U_p$                                  | $\leq 1.5 \text{ kV}$               |
| Residual voltage $U_{\text{res}}$                               | $\leq 0.4 \text{ kV}$ (at $I_n$ )   |
|   | $\leq 0.25 \text{ kV}$ (at 10 kA)   |
|   | $\leq 0.15 \text{ kV}$ (at 5 kA)    |
|   | $\leq 0.1 \text{ kV}$ (at 3 kA)     |
| Front-of-wave sparkover voltage at 6 kV (1.2/50) $\mu\text{s}$  | $\leq 1.5 \text{ kV}$               |
| TOV behavior at $U_T$   | 1200 V AC (200 ms / withstand mode) |
| Response time $t_A$   | $\leq 100 \text{ ns}$               |

## 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                                | $\leq 2000 \text{ m}$ (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 | 305 V AC     |
| Voltage protection rating VPR             | 1200 V       |
| UL type                                   | type 1       |
| Nominal discharge current $I_n$           | 20 kA        |
| Maximum Surge Current per Phase           | 40 kA        |
| Mode of protection                        | N-G          |
| Nominal voltage                           | 277 V AC     |
| Power distribution system                 | Single phase |
| Nominal frequency                         | 50/60 Hz     |
| SPD Type                                  | 1CA          |

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## Standards and regulations

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

## Mounting

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

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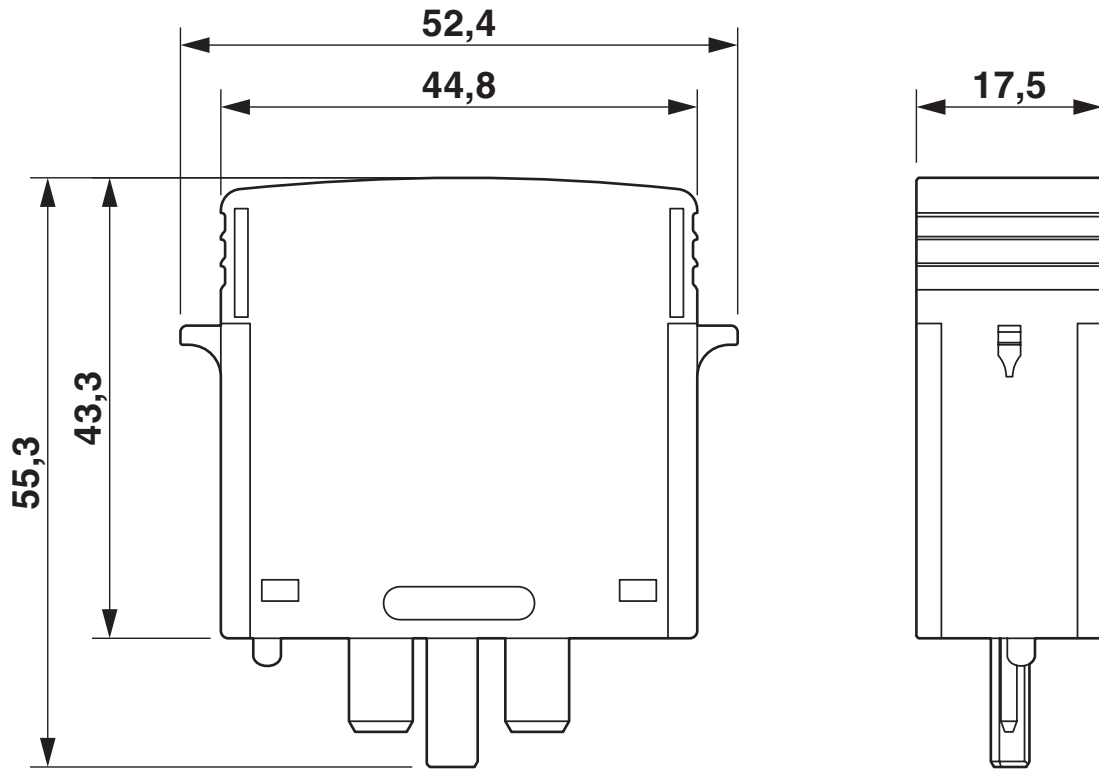
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## Drawings

Dimensional drawing



Circuit diagram



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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2910342>



**KEMA-KEUR**

Approval ID: 71-148002



**cUL Recognized**

Approval ID: FILE E 330181



**UL Recognized**

Approval ID: FILE E 330181

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## Classifications

### ECLASS

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

### ETIM

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

### UNSPSC

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

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## 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% |
|-------------------------------------|----------------------------|

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