

FLT-PLUS CTRL-1.5/I - Type 1+2 combined lightning current and surge arrester



2800120  
<https://www.phoenixcontact.com/in/products/2800120>

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Type 1 / Class I (lightning current arrester) with arc chopping spark gap and ignition electronics, quenching plates for high mains follow-through current quenching capacity, 1-channel. Protection level: 1.5 kV. Housing width: 35 mm (2 Div.)

Commercial data

|                                      |                   |
|--------------------------------------|-------------------|
| Item number                          | 2800120           |
| Packing unit                         | 1 pc              |
| Minimum order quantity               | 1 pc              |
| Sales key                            | CL1               |
| Product key                          | CL1121            |
| Catalog page                         | Page 19 (TT-2011) |
| GTIN                                 | 4046356480055     |
| Weight per piece (including packing) | 566.3 g           |
| Weight per piece (excluding packing) | 563.1 g           |
| Customs tariff number                | 85363010          |
| Country of origin                    | IN                |

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## Technical data

### Notes

#### Trade restriction

|         |                                                                                                |
|---------|------------------------------------------------------------------------------------------------|
| CE note | The products are offered exclusively for export outside the EU and the European Economic Area. |
|---------|------------------------------------------------------------------------------------------------|

### Product properties

|                                |                            |
|--------------------------------|----------------------------|
| Product type                   | Combination type           |
| IEC test classification        | I                          |
|                                | T1                         |
| EN type                        | T1                         |
| IEC power supply system        | TT                         |
|                                | TN-C                       |
|                                | TN-S                       |
| Type                           | DIN rail module, one-piece |
| 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               |
| Nominal voltage $U_N$   | 230 V AC (400 V AC) |

### Connection data

|                                       |                    |
|---------------------------------------|--------------------|
| Connection method                     | Screw connection   |
| Screw thread                          | M6                 |
| Tightening torque, min                | 8 Nm               |
| Stripping length                      | 19 mm              |
| Conductor cross section flexible min. | 16 mm <sup>2</sup> |
| Conductor cross section flexible max. | 35 mm <sup>2</sup> |
| Conductor cross section, rigid min.   | 10 mm <sup>2</sup> |
| Conductor cross section, rigid max.   | 50 mm <sup>2</sup> |

### Dimensions

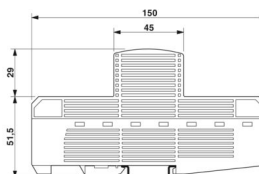
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## Dimensional drawing



|                  |         |
|------------------|---------|
| Width            | 35.5 mm |
| Height           | 150 mm  |
| Depth            | 80.5 mm |
| Horizontal pitch | 2 Div.  |

## Material specifications

|                                        |           |
|----------------------------------------|-----------|
| Flammability rating according to UL 94 | V0        |
| Spark gap insulation                   | PA 6.6 GF |
|                                        | POM       |
| Housing material                       | PA-GF     |

## Mechanical properties

### Mechanical data

|                 |    |
|-----------------|----|
| Open side panel | No |
|-----------------|----|

## Protective circuit

|                                                                  |                  |
|------------------------------------------------------------------|------------------|
| Direction of action                                              | 1L-N/PE          |
| Nominal frequency $f_N$                                          | 50 Hz            |
|                                                                  | 60 Hz            |
| Maximum continuous voltage $U_C$                                 | 350 V AC         |
| Maximum continuous operating voltage $U_C$ (L-N)                 | 350 V AC         |
| Maximum continuous operating voltage $U_C$ (L-PEN)               | 350 V AC         |
| Residual current $I_{PE}$                                        | $\leq 3$ mA      |
| Standby power consumption $P_C$                                  | $\leq 1.05$ VA   |
| Nominal discharge current $I_n$ (8/20) $\mu$ s                   | 50 kA            |
| Nominal discharge current $I_n$ (8/20) $\mu$ s (L-N)             | 50 kA            |
| Nominal discharge current $I_n$ (8/20) $\mu$ s (L-PEN)           | 50 kA            |
| Maximum discharge current $I_{max}$ (8/20) $\mu$ s               | 50 kA            |
| Impulse discharge current (10/350) $\mu$ s, charge               | 25 As            |
| Impulse discharge current (10/350) $\mu$ s, specific energy      | 625 kJ/ $\Omega$ |
| Impulse discharge current (10/350) $\mu$ s, peak value $I_{imp}$ | 50 kA            |
| Follow current interrupt rating $I_{fi}$                         | 50 kA            |
| Voltage protection level $U_p$                                   | $\leq 1.5$ kV    |
| Voltage protection level $U_p$ (L-N)                             | $\leq 1.5$ kV    |
| Voltage protection level $U_p$ (L-PEN)                           | $\leq 1.5$ kV    |
| Front of wave sparkover voltage at 6 kV (1.2/50) $\mu$ s         | $\leq 1.5$ kV    |

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|                                     |                       |
|-------------------------------------|-----------------------|
| Response time $t_A$                 | $\leq 100 \text{ ns}$ |
| Response time $t_A$ (L-N)           | $\leq 100 \text{ ns}$ |
| Response time $t_A$ (L-PEN)         | $\leq 100 \text{ ns}$ |
| Max. backup fuse with branch wiring | 500 A (NH-gL)         |

## Environmental and real-life conditions

### Ambient conditions

|                                  |                  |
|----------------------------------|------------------|
| Degree of protection             | IP20             |
| Ambient temperature (operation)  | -40 °C ... 85 °C |
| Permissible humidity (operation) | $\leq 95 \%$     |

## Standards and regulations

### Air clearances and creepage distances

|                       |                          |
|-----------------------|--------------------------|
| Standards/regulations | EN 60664-1 / EN 61643-11 |
|-----------------------|--------------------------|

### Standards

|                          |                     |
|--------------------------|---------------------|
| Standards/regulations    | IEC 61643-1         |
|                          | DIN EN 61643-11     |
|                          | DIN EN 61643-11/A11 |
| Standards/specifications | IEC 61643-1         |
| Note                     | 2005                |
| Standards/specifications | DIN EN 61643-11     |
| Note                     | 2002                |
| Standards/specifications | DIN EN 61643-11/A11 |
| Note                     | 2007                |

## Mounting

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

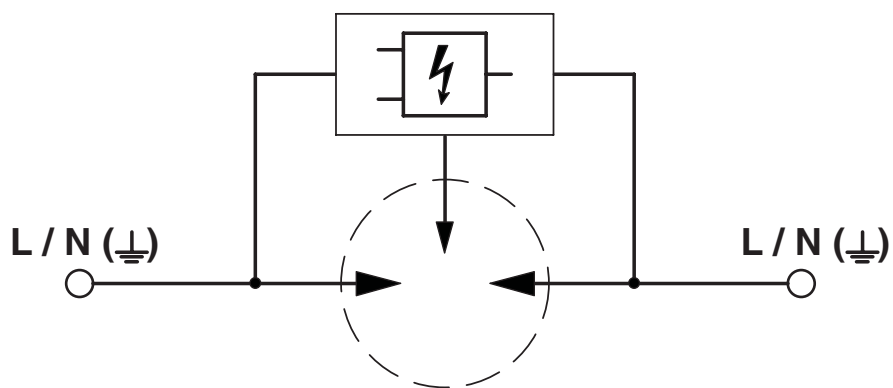
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2800120

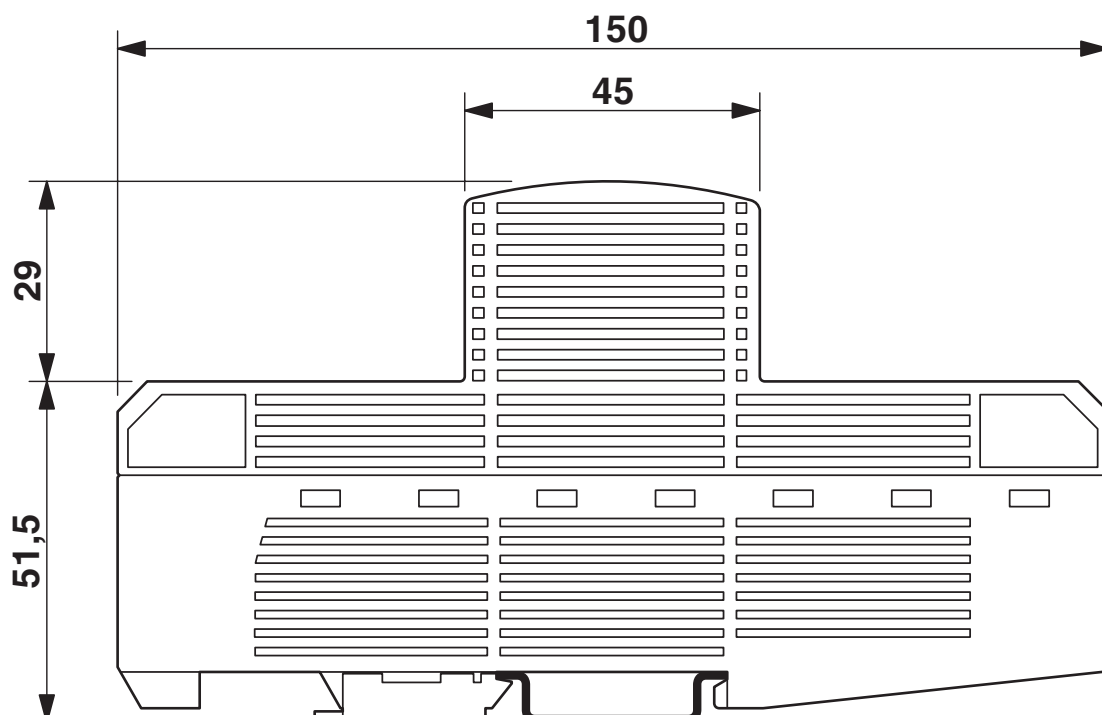
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## Drawings

Circuit diagram



Dimensional drawing



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## Approvals

📄 To download certificates, visit the product detail page: <https://www.phoenixcontact.com/in/products/2800120>



**EAC**

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

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Environmental product compliance

|                                         |                                                                                                                                                                                                                                   |
|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EU RoHS                                 |                                                                                                                                                                                                                                   |
| Fulfills EU RoHS substance requirements | Not applicable, Not qualified for the European market                                                                                                                                                                             |
| China RoHS                              |                                                                                                                                                                                                                                   |
| Environment friendly use period (EFUP)  | EFUP-50                                                                                                                                                                                                                           |
|                                         | An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required. |
| EU REACH SVHC                           |                                                                                                                                                                                                                                   |
| REACH candidate substance (CAS No.)     | Hexahydromethylphthalic anhydride(CAS: n/a)                                                                                                                                                                                       |
|                                         | Lead(CAS: 7439-92-1)                                                                                                                                                                                                              |

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## Accessories

### MPB 18/1-57 - Wiring bridge

2809238

<https://www.phoenixcontact.com/in/products/2809238>



Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 57-pos.

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### MPB 18/1-12 - Wiring bridge

2748593

<https://www.phoenixcontact.com/in/products/2748593>



Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 12-pos.

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## MPB 18/1- 9 - Wiring bridge

2748580

<https://www.phoenixcontact.com/in/products/2748580>



Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 9-pos.

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## MPB 18/1- 8 - Wiring bridge

2748577

<https://www.phoenixcontact.com/in/products/2748577>



Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 8-pos.

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## MPB 18/1- 6 - Wiring bridge

2748564

<https://www.phoenixcontact.com/in/products/2748564>



Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 6-pos.

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## MPB 18/1- 4 - Wiring bridge

2809225

<https://www.phoenixcontact.com/in/products/2809225>



Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 4-pos.

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## MPB 18/1- 3 - Wiring bridge

2809212

<https://www.phoenixcontact.com/in/products/2809212>



Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 3-pos.

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## MPB 18/1- 2 - Wiring bridge

2809209

<https://www.phoenixcontact.com/in/products/2809209>



Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 2-pos.

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## CLIPFIX 35 - End bracket

3022218

<https://www.phoenixcontact.com/in/products/3022218>



Quick mounting end clamp for NS 35/7,5 DIN rail or NS 35/15 DIN rail, with marking option, width: 9.5 mm, color: gray

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## B-STIFT - Marker pen

1051993

<https://www.phoenixcontact.com/in/products/1051993>



Marker pen, for manual labeling of unprinted Zack strips, smear-proof and waterproof, line thickness 0.5 mm

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## ZBN 18,LGS:ERDE - Marker for terminal blocks

2749589

<https://www.phoenixcontact.com/in/products/2749589>



Marker for terminal blocks, Strip, white, labeled, horizontal: Grounding symbol, mounting type: snapped, for terminal block width: 18 mm, lettering field size: 18 x 5 mm, Number of individual labels: 5

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## ZBN 18,LGS:L1-N,ERDE - Marker for terminal blocks

2749576

<https://www.phoenixcontact.com/in/products/2749576>



Marker for terminal blocks, Strip, white, labeled, horizontal: L1, L2, L3, N, GND, mounting type: snapped, for terminal block width: 18 mm, lettering field size: 18 x 5 mm, Number of individual labels: 5

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## ZBN 18:UNBEDRUCKT - Zack marker strip

2809128

<https://www.phoenixcontact.com/in/products/2809128>



Zack marker strip, Strip, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, PLOTMARK, mounting type: snapped, for terminal block width: 18 mm, lettering field size: 18 x 5 mm, Number of individual labels: 5

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