

Surge protection device - LIT 4-12 - 2804704

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Surge protection in one-piece 6.2 mm wide DIN rail module for four floating signal wires.

Your advantages

- ✔ Complete normal mode voltage protection between all wires
- ✔ Cross-arrester bridging of the reference potential with ME 6,2 TBUS



Key Commercial Data

| | |
|--------------|---------------|
| Packing unit | 10 pc |
| GTIN | |
| GTIN | 4046356462204 |

Technical data

Dimensions

| | |
|--------|----------------------------------|
| Height | 93.1 mm |
| Width | 6.2 mm |
| Depth | 102.5 mm (incl. DIN rail 7.5 mm) |

Ambient conditions

| | |
|---|--|
| Ambient temperature (operation) | -40 °C ... 80 °C |
| Ambient temperature (storage/transport) | -40 °C ... 80 °C |
| Altitude | ≤ 2000 m (amsl (above mean sea level)) |
| Degree of protection | IP20 |

General

| | |
|--|--------------------------|
| Housing material | PBT |
| Flammability rating according to UL 94 | V-0 |
| Color | anthracite grey RAL 7016 |
| Mounting type | DIN rail: 35 mm |

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Technical data

General

| | |
|---------------------|-------------------------------|
| Type | DIN rail module, one-piece |
| Direction of action | Line-Line & Line-Earth Ground |

Protective circuit

| | |
|--|------------------------------------|
| IEC test classification | C1 |
| | C2 |
| | C3 |
| | D1 |
| Nominal voltage U_N | 12 V DC |
| Maximum continuous voltage U_C | 18 V DC |
| | 13 V AC |
| Rated current | 500 mA (40 °C) |
| Operating effective current I_C at U_C | $\leq 2 \mu A$ |
| Residual current I_{PE} | $\leq 4 \mu A$ |
| Nominal discharge current I_n (8/20) μs (line-line) | 350 A |
| Nominal discharge current I_n (8/20) μs (line-earth) | 5 kA |
| Pulse discharge current I_{imp} (10/350) μs (line-earth) | 500 A |
| | 2 kA (in total) |
| Total discharge current I_{total} (8/20) μs | 20 kA |
| Max. discharge current I_{max} (8/20) μs maximum (line-line) | 350 A |
| Max. discharge current I_{max} (8/20) μs maximum (line-earth) | 10 kA |
| | 20 kA (in total) |
| Nominal pulse current I_{an} (10/1000) μs (line-line) | 70 A |
| Nominal pulse current I_{an} (10/1000) μs (line-earth) | 50 A |
| | 200 A (in total) |
| Output voltage limitation at 1 kV/ μs (line-line) spike | $\leq 50 V$ |
| Output voltage limitation at 1 kV/ μs (line-earth) spike | $\leq 650 V$ |
| Residual voltage at I_n (line-line) | $\leq 50 V$ |
| Residual voltage with I_{an} (10/1000) μs (line-line) | $\leq 50 V$ |
| Voltage protection level U_p (line-line) | $\leq 50 V$ (C1 - 500 V / 250 A) |
| | $\leq 35 V$ (C3 - 10 A) |
| | $\leq 40 V$ (C3 - 70 A) |
| Voltage protection level U_p (line-earth) | $\leq 650 V$ (C1 - 500 V / 250 A) |
| | $\leq 650 V$ (C2 - 10 kV / 5 kA) |
| | $\leq 650 V$ (C3 - 10 A) |
| | $\leq 700 V$ (C3 - 50 A) |
| | $\leq 700 V$ (D1 - 500 A) |
| Response time t_A (line-line) | $\leq 1 ns$ |
| Response time t_A (line-earth) | $\leq 100 ns$ |
| Input attenuation aE, sym. | typ. 0.3 dB (1.5 MHz/50 Ω) |

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Technical data

Protective circuit

| | |
|---|--|
| | typ. 0.3 dB (500 kHz / 150 Ω) |
| Cut-off frequency fg (3 dB), sym. in 50 Ohm system | typ. 5 MHz |
| Cut-off frequency fg (3 dB), sym. in 150 Ohm system | typ. 1.7 MHz |
| Capacity | ≤ 1.5 nF (per path) |
| Resistance per path | 0 Ω |
| Surge protection fault message | none |
| Max. required back-up fuse | 500 mA (T) |
| Impulse durability (line-line) | C1 - 500 V / 250 A C3 - 70 A |
| Impulse durability (line-earth) | C1 - 500 V / 250 A C2 - 10 kV / 5 kA C3 - 50 A D1 - 500 A |
| Alternating current carrying capacity (line-earth) | 5 A - 1 s |

Connection data

| | |
|----------------------------------|---|
| Connection method | Screw connection |
| Connection method IN | PLUGTRAB plug-in system |
| Connection method OUT | PLUGTRAB plug-in system |
| Screw thread | M3 |
| Tightening torque | 0.8 Nm |
| Stripping length | 8 mm |
| Conductor cross section flexible | 0.2 mm ² ... 2.5 mm ² |
| Conductor cross section solid | 0.2 mm ² ... 2.5 mm ² |
| Conductor cross section AWG | 24 ... 14 |

Connection, equipotential bonding

| | |
|-------------------|---------------|
| Connection method | DIN rail NS35 |
|-------------------|---------------|

Standards and Regulations

| | |
|--------------------------|---------------------|
| Standards/specifications | EN 61643-21 A2:2013 |
| | EN 60079-0 2012 |
| | EN 60079-11 2012 |
| | EN 60079-26 2007 |
| | IEC 60079-0 2011 |
| | IEC 60079-11 2011 |
| | IEC 60079-26 2006 |

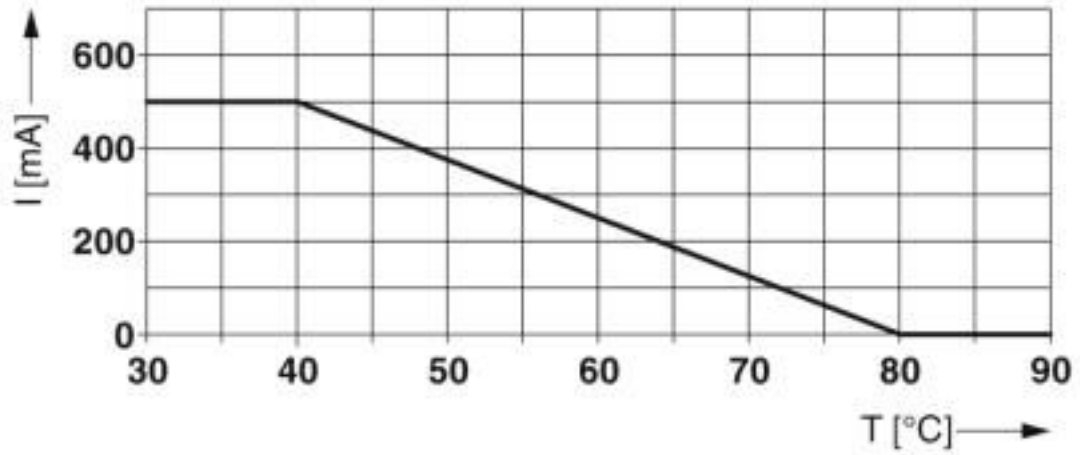
Environmental Product Compliance

| | |
|------------|---|
| REACH SVHC | Lead 7439-92-1 |
| China RoHS | Environmentally Friendly Use Period = 50 years |
| | For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration" |

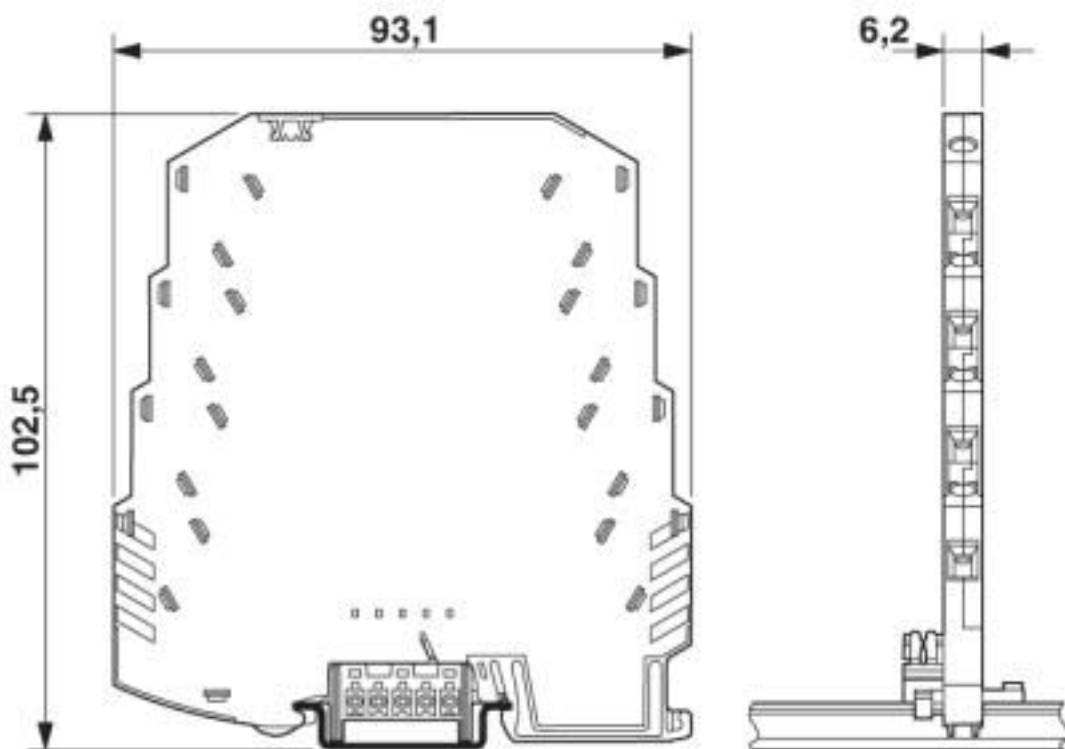
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Drawings

Diagram

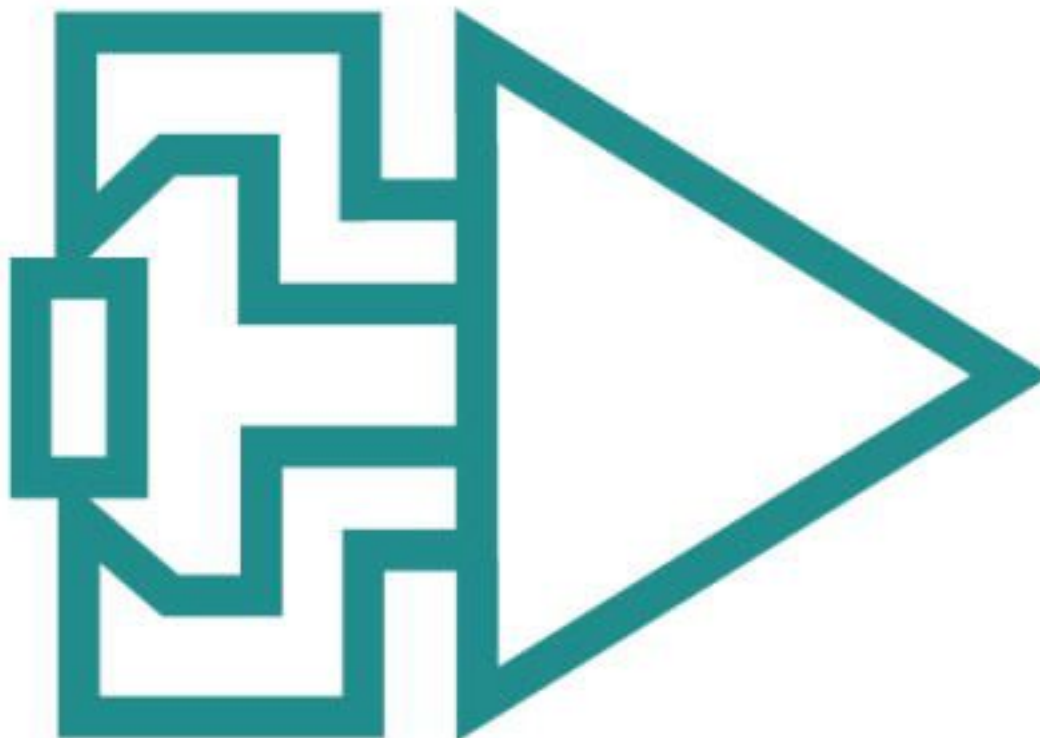


Dimensional drawing

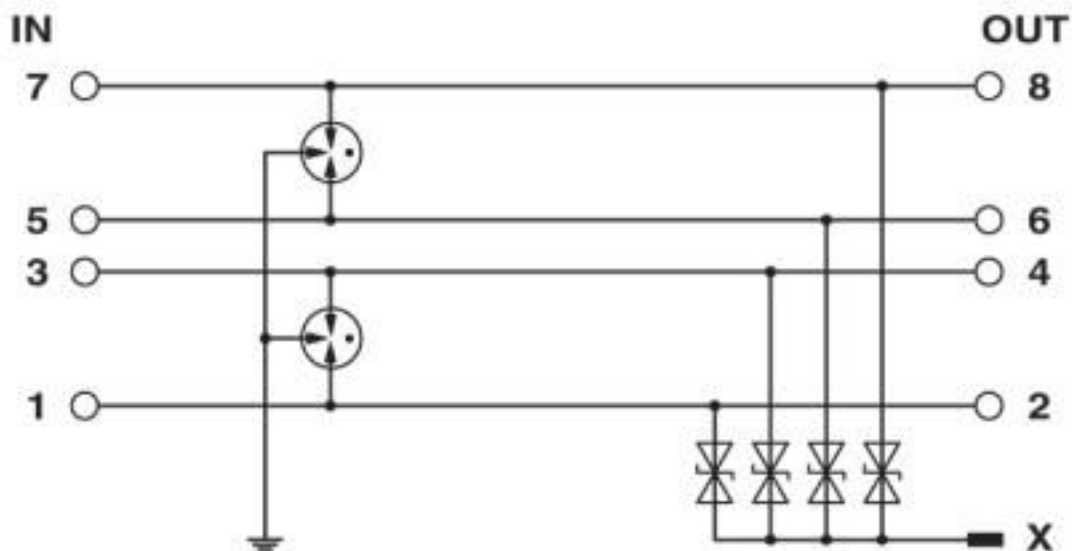


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Pictogram



Circuit diagram



Classifications

eCl@ss

| | |
|---------------|----------|
| eCl@ss 10.0.1 | 27130807 |
|---------------|----------|

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Classifications

eCl@ss

| | |
|------------|----------|
| eCl@ss 4.0 | 27130800 |
| eCl@ss 4.1 | 27130800 |
| eCl@ss 5.0 | 27130800 |
| eCl@ss 5.1 | 27130800 |
| eCl@ss 6.0 | 27130800 |
| eCl@ss 7.0 | 27130807 |
| eCl@ss 8.0 | 27130807 |
| eCl@ss 9.0 | 27130807 |

ETIM

| | |
|----------|----------|
| ETIM 2.0 | EC000943 |
| ETIM 3.0 | EC000943 |
| ETIM 4.0 | EC000943 |
| ETIM 5.0 | EC000943 |
| ETIM 6.0 | EC000943 |
| ETIM 7.0 | EC000943 |

UNSPSC

| | |
|---------------|----------|
| UNSPSC 6.01 | 30212010 |
| UNSPSC 7.0901 | 39121610 |
| UNSPSC 11 | 39121610 |
| UNSPSC 12.01 | 39121610 |
| UNSPSC 13.2 | 39121620 |
| UNSPSC 18.0 | 39121620 |
| UNSPSC 19.0 | 39121620 |
| UNSPSC 20.0 | 39121620 |
| UNSPSC 21.0 | 39121620 |

Approvals

Approvals

Approvals

DNV GL / UL Listed / EAC

Ex Approvals

IECEX / ATEX / EAC Ex

Approval details

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Approvals

| | | | |
|--------|--|---|------------|
| DNV GL | | https://approvalfinder.dnvgl.com/ | TAE00001N8 |
|--------|--|---|------------|

| | | | |
|-----------|--|---|---------------|
| UL Listed | | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | FILE E 138168 |
|-----------|--|---|---------------|

| | | | |
|-----|--|--|-------------------------|
| EAC | | | RU C- DE.*09.B.00169 |
|-----|--|--|-------------------------|

Accessories

Accessories

DIN rail connector

DIN rail bus connectors - ME 6,2 TBUS-2 1,5/5-ST-3,81KMGY - 2969401



DIN rail bus connector for potential bridging of devices arranged next to one another across all modules.

PCB plug

Printed-circuit board connector - IMC 1,5/ 5-ST-3,81 - 1857919



PCB connector, nominal current: 8 A, rated voltage (III/2): 160 V, nominal cross section: 1.5 mm², number of positions: 5, pitch: 3.81 mm, connection method: Screw connection with tension sleeve, color: green, contact surface: Tin

Terminal marking

Marker for terminal blocks - UC-TM 6 - 0818085



Marker for terminal blocks, Sheet, white, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, PLOTMARK, CMS-P1-PLOTTER, mounting type: snap into tall marker groove, for terminal block width: 6.2 mm, lettering field size: 5.6 x 10.5 mm, Number of individual labels: 80

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Accessories

Marker for terminal blocks - UC-TM 6 OG - 0818328



Marker for terminal blocks, Sheet, orange, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, PLOTMARK, CMS-P1-PLOTTER, mounting type: snap into tall marker groove, for terminal block width: 6.2 mm, lettering field size: 5.6 x 10.5 mm, Number of individual labels: 80

Marker for terminal blocks - UC-TM 6 YE - 0818331



Marker for terminal blocks, Sheet, yellow, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, PLOTMARK, CMS-P1-PLOTTER, mounting type: snap into tall marker groove, for terminal block width: 6.2 mm, lettering field size: 5.6 x 10.5 mm, Number of individual labels: 80

Marker for terminal blocks - UC-TM 6 BU - 0818344



Marker for terminal blocks, Sheet, blue, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, PLOTMARK, CMS-P1-PLOTTER, mounting type: snap into tall marker groove, for terminal block width: 6.2 mm, lettering field size: 5.6 x 10.5 mm, Number of individual labels: 80

Marker for terminal blocks - UC-TM 6 RD - 0818357



Marker for terminal blocks, Sheet, red, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, PLOTMARK, CMS-P1-PLOTTER, mounting type: snap into tall marker groove, for terminal block width: 6.2 mm, lettering field size: 5.6 x 10.5 mm, Number of individual labels: 80

Marker for terminal blocks - UC-TM 6 GN - 0818360



Marker for terminal blocks, Sheet, green, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, PLOTMARK, CMS-P1-PLOTTER, mounting type: snap into tall marker groove, for terminal block width: 6.2 mm, lettering field size: 5.6 x 10.5 mm, Number of individual labels: 80

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