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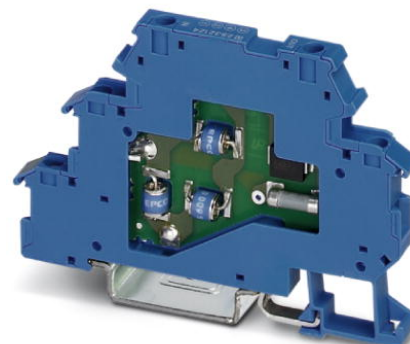
sales@integrated-circuit.com



Extract from the online catalog

TT-EX(I)- 24DC


Order No.: 2832124



<http://eshop.phoenixcontact.de/phoenix/treeViewClick.do?UID=2832124>

Modular terminal block with three-stage surge protection for a floating Ex-i signal circuit, separate PE connection, nominal voltage: 24 V DC, for mounting on NS 35/7.5, terminal block width: 6.2 mm, terminal block height: 54.6 mm



| Commercial data | |
|--------------------------|--|
| GTIN (EAN) |  4 017918 172831 |
| sales group | J305 |
| Pack | 10 pcs. |
| Customs tariff | 85363010 |
| Catalog page information | Page 101 (TT-2009) |

Product notes

WEEE/RoHS-compliant since:
06/28/2006



<http://www.download.phoenixcontact.com>
Please note that the data given here has been taken from the online catalog. For comprehensive information and data, please refer to the user documentation. The General Terms and Conditions of Use apply to Internet downloads.

Technical data

| General | |
|------------------------------------|--------|
| Housing material | PA 6.6 |
| Inflammability class acc. to UL 94 | V0 |
| Color | blue |

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| | |
|--|---|
| Standards for air and creepage distances | EN 50020 |
| | VDE 0110-1 |
| | DIN EN 60079-11 |
| Total surge current (8/20) μ s | 10 kA |
| Ambient temperature (operation) | -40 °C ... 85 °C |
| Mounting type | DIN rail: 35 mm |
| Design | Double-level terminal block with PE foot – separate PE connection |
| Degree of protection | IP20 |
| Direction of action | Line-Line & Line-Earth Ground |
| Width | 6.20 mm |
| Height | 54.60 mm |
| Length | 79.60 mm |

Protective circuit

| | |
|---|----------------|
| IEC category | C1 |
| | C2 |
| | C3 |
| | D1 |
| VDE requirement class | C1 |
| | C2 |
| | C3 |
| Nominal voltage U_N | 24 V DC |
| | 17 V AC |
| Maximum continuous operating voltage U_C | 30 V DC |
| | 21 V AC |
| Maximum continuous voltage U_C (wire-wire) | 30 V DC |
| | 21 V AC |
| Nominal current I_N | 250 mA (40°C) |
| Operating effective current I_C at U_C | $\leq 5 \mu$ A |
| Ground conductor current I_{PE} | $\leq 1 \mu$ A |
| Nominal discharge surge current I_n (8/20) μ s (Core-Core) | 5 kA |
| Nominal discharge surge current I_n (8/20) μ s (Core-Earth) | 5 kA |
| Total surge current (8/20) μ s | 10 kA |

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| | |
|--|--|
| Max. discharge surge current I_{max} (8/20) μ s maximum (Core-Core) | 5 kA |
| Max. discharge surge current I_{max} (8/20) μ s maximum (Core-Earth) | 5 kA (per path) |
| Nominal pulse current I_{an} (10/1000) μ s (Core-Core) | 100 A |
| Nominal pulse current I_{an} (10/1000) μ s (Core-Earth) | 100 A (per path) |
| Lightning test current (10/350) μ s, peak value I_{imp} | 500 A (per path) |
| Output voltage limitation at 1 kV/ μ s (Core-Core) spike | ≤ 50 V |
| Output voltage limitation at 1 kV/ μ s (Core-Earth) spike | ≤ 1.7 kV |
| Output voltage limitation at 1 kV/ μ s (Core-Core) static | ≤ 50 V |
| Output voltage limitation at 1 kV/ μ s (Core-Earth) static | ≤ 1.7 kV |
| Residual voltage at I_n , (conductor-conductor) | ≤ 40 V |
| Protection level U_p (Core-Core) | ≤ 75 V (C2 (10 kV/5 kA)) ≤ 50 V (C3 - 25 A) |
| Protection level U_p (Core-Earth) | ≤ 2 kV (C2 - 10 kV / 5 kA) |
| Response time t_A (Core-Core) | ≤ 1 ns |
| Response time t_A (Core-Earth) | ≤ 100 ns |
| Input attenuation aE, sym. | 1 dB (≤ 1 MHz) 0.3 dB (≤ 200 kHz / 150 Ω) |
| Cut-off frequency f_g (3 dB), sym. in 50 Ohm system | Typ. 6 MHz |
| Cut-off frequency f_g (3 dB), sym. in 150 Ohm system | Typ. 2 MHz |
| Capacity (Core-Core) | 2.5 nF |
| Resistance in series | 4.7 Ω ± 10 % 4.7 Ω |
| Surge carrying capacity in acc. with IEC 61643-21 (Core-Core) | C2 (10 kV/5 kA) C1 (1 kV / 500 A) C3 (25 A) |
| Surge carrying capacity in acc. with IEC 61643-21 (Core-Earth) | C2 (10 kV/5 kA) C3 (25 A) D1 (500 A) |

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Connection data

| | |
|--|-----------------------|
| Type of connection | Screw terminal blocks |
| Connection type IN | Screw terminal blocks |
| Connection type OUT | Screw terminal blocks |
| Screw thread | M3 |
| Tightening torque | 0.8 Nm |
| Stripping length | 8 mm |
| Conductor cross section stranded min. | 0.2 mm ² |
| Conductor cross section stranded max. | 2.5 mm ² |
| Conductor cross section solid min. | 0.2 mm ² |
| Conductor cross section solid max. | 4 mm ² |
| Conductor cross section AWG/kcmil min. | 24 |
| Conductor cross section AWG/kcmil max | 14 |

Connection, protective circuit

| | |
|-----------------------|--------------|
| Standards/regulations | IEC 61643-21 |
| | EN 50020 |

General

| | |
|---|-------------|
| Maximum inner capacitance C_i | 2 nF |
| Maximum inner inductance L_i | 1 μ H |
| Maximum inner time factor (R_i/L_i) | 0.1 μ s |
| Insulation voltage to ground | 500 V 10 % |

Conformity / approvals

| | |
|------|-----------------------------------|
| ATEX | Ex II 1G, Ex ia IIC T4...T6 |
| | Ex II 1 D, Ex iaD 20 T95...135 °C |

Certificates / Approvals


Certification

GOST, UCIEE, UL

Certification Ex:

CUL-EX LIS, KEMA-EX, UL-EX LIS

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Accessories

| Item | Designation | Description |
|------|-------------|-------------|
|------|-------------|-------------|

Assembly

| | | |
|---------|--------------|--|
| 2838982 | D-DEK 1,5 BU | Cover for setting the end of a TERMITRAB TT-EX(I)... row of terminal blocks, color: blue |
|---------|--------------|--|

Additional products

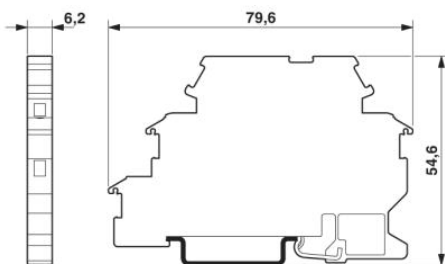
| Item | Designation | Description |
|------|-------------|-------------|
|------|-------------|-------------|

Assembly

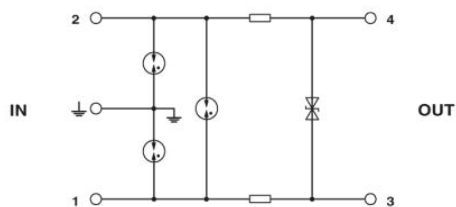
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|---------|--------------|--|

Diagrams/Drawings

Dimensioned drawing



Circuit diagram



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