

MTKD-E-CU/A-CU - Thermoelectric voltage terminal block pair



3100091

<https://www.phoenixcontact.com/us/products/3100091>

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



Thermoelectric voltage terminal block pair, TC type R, nom. voltage: 400 V, nominal current: 1 A, number of connections: 4, number of positions: 2, connection method: Screw connection, 1 level, cross section: 0.2 mm² - 4 mm², mounting type: NS 35/7,5, NS 35/15, NS 32, color: gray

The figure shows version
MTKD-CU/CUNI

Your advantages

- These special terminal blocks are used to extend thermocouple equalizing conductors in corresponding measuring circuits
- The equalizing conductors are made from materials which, up to temperatures of 200°C, have the same thermal characteristics as the corresponding thermocouples

Commercial data

| | |
|--------------------------------------|---------------|
| Item number | 3100091 |
| Packing unit | 50 pc |
| Minimum order quantity | 1 pc |
| Sales key | BE12 |
| Product key | BE1211 |
| GTIN | 4017918092504 |
| Weight per piece (including packing) | 15.425 g |
| Weight per piece (excluding packing) | 15.425 g |
| Customs tariff number | 85369010 |
| Country of origin | PL |

MTKD-E-CU/A-CU - Thermoelectric voltage terminal block pair



3100091

<https://www.phoenixcontact.com/us/products/3100091>

Technical data

Product properties

| | |
|-----------------------|-----------------------------|
| Product type | Feed-through terminal block |
| Product family | MTK |
| Number of positions | 2 |
| Number of connections | 4 |
| Number of rows | 1 |
| Potentials | 1 |

Electrical properties

| | |
|---|--------|
| Maximum power dissipation for nominal condition | 0.77 W |
|---|--------|

Connection data

| | |
|---------------------------------|---------------------|
| Number of connections per level | 4 |
| Nominal cross section | 2.5 mm ² |

1 level

| | |
|---|---|
| Connection method | Screw connection |
| Screw thread | M3 |
| Tightening torque | 0.6 ... 0.8 Nm |
| Stripping length | 8 mm |
| Internal cylindrical gage | A3 |
| Connection in acc. with standard | IEC 60947-7-1 |
| Conductor cross-section rigid | 0.2 mm ² ... 4 mm ² |
| Cross section AWG | 24 ... 12 (converted acc. to IEC) |
| Conductor cross-section flexible | 0.2 mm ² ... 2.5 mm ² |
| Conductor cross-section, flexible [AWG] | 24 ... 14 (converted acc. to IEC) |
| Conductor cross-section flexible (ferrule without plastic sleeve) | 0.2 mm ² ... 1.5 mm ² |
| Flexible conductor cross-section (ferrule with plastic sleeve) | 0.2 mm ² ... 1.5 mm ² |
| Nominal current | 1 A |
| Maximum load current | 1 A (with 4 mm ² conductor cross-section) |
| Nominal voltage | 400 V (Voltage to the neighboring feed-through terminal block MTK.) |

Dimensions

| | |
|--------------------|---------|
| Width | 10.4 mm |
| End cover width | 1 mm |
| Height | 46.2 mm |
| Depth on NS 32 | 44.9 mm |
| Depth on NS 35/7,5 | 39.9 mm |
| Depth on NS 35/15 | 47.4 mm |

Material specifications

MTKD-E-CU/A-CU - Thermoelectric voltage terminal block pair



3100091

<https://www.phoenixcontact.com/us/products/3100091>

| | |
|---|-----------------|
| Color | gray (RAL 7042) |
| Flammability rating according to UL 94 | V0 |
| Insulating material | PA |
| Static insulating material application in cold | -60 °C |
| Temperature index of insulation material (DIN EN 60216-1 (VDE 0304-21)) | 130 °C |
| Relative insulation material temperature index (Elec., UL 746 B) | 130 °C |
| Fire protection for rail vehicles (DIN EN 45545-2) R22 | HL 1 - HL 3 |
| Fire protection for rail vehicles (DIN EN 45545-2) R23 | HL 1 - HL 3 |
| Fire protection for rail vehicles (DIN EN 45545-2) R24 | HL 1 - HL 3 |
| Fire protection for rail vehicles (DIN EN 45545-2) R26 | HL 1 - HL 3 |
| Calorimetric heat release NFPA 130 (ASTM E 1354) | 28 MJ/kg |
| Surface flammability NFPA 130 (ASTM E 162) | passed |
| Specific optical density of smoke NFPA 130 (ASTM E 662) | passed |
| Smoke gas toxicity NFPA 130 (SMP 800C) | passed |

Mechanical properties

Mechanical data

| | |
|-----------------|-----|
| Open side panel | Yes |
|-----------------|-----|

Environmental and real-life conditions

Ambient conditions

| | |
|--|--|
| Ambient temperature (operation) | -60 °C ... 110 °C (Operating temperature range incl. self-heating; for max. short-term operating temperature, see RTI Elec.) |
| Ambient temperature (storage/transport) | -25 °C ... 60 °C (for a short time, not exceeding 24 h, -60 °C to +70 °C) |
| Ambient temperature (assembly) | -5 °C ... 70 °C |
| Ambient temperature (actuation) | -5 °C ... 70 °C |
| Permissible humidity (operation) | 20 % ... 90 % |
| Permissible humidity (storage/transport) | 30 % ... 70 % |

Standards and regulations

| | |
|----------------------------------|---------------|
| Connection in acc. with standard | IEC 60947-7-1 |
|----------------------------------|---------------|

Mounting

| | |
|---------------|-----------|
| Mounting type | NS 35/7,5 |
| | NS 35/15 |
| | NS 32 |

MTKD-E-CU/A-CU - Thermoelectric voltage terminal block pair





3100091


<https://www.phoenixcontact.com/us/products/3100091>

Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/3100091>

| | |
|---|---|
|  | EAC Approval ID: KZ7500651131219505 |
|---|---|

| | | | | |
|---|--|-----------------------|-------------------|----------------------|
|  | cULus Recognized Approval ID: E60425 | | | |
| | Nominal voltage U_N | Nominal current I_N | Cross section AWG | Cross section mm^2 |
| B | 250 V | 10 A | 28 - 12 | - |
| D | 300 V | 10 A | 28 - 12 | - |

| | | | | |
|---|----------------------------------|-----------------------|-------------------|----------------------|
|  | CSA Approval ID: 13631 | | | |
| | Nominal voltage U_N | Nominal current I_N | Cross section AWG | Cross section mm^2 |
| B | 300 V | 1 A | 28 - 12 | - |
| D | 300 V | 1 A | 28 - 12 | - |

MTKD-E-CU/A-CU - Thermoelectric voltage terminal block pair



3100091

<https://www.phoenixcontact.com/us/products/3100091>

Classifications

ECLASS

| | |
|-------------|----------|
| ECLASS-13.0 | 27250115 |
| ECLASS-15.0 | 27250115 |

ETIM

| | |
|-----------|----------|
| ETIM 10.0 | EC000904 |
|-----------|----------|

UNSPSC

| | |
|-------------|----------|
| UNSPSC 21.0 | 39121400 |
|-------------|----------|

MTKD-E-CU/A-CU - Thermoelectric voltage terminal block pair



3100091

<https://www.phoenixcontact.com/us/products/3100091>

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% |
|-------------------------------------|----------------------------|

EF3.1 Climate Change

| | |
|---------|---------------|
| CO2e kg | 0.093 kg CO2e |
|---------|---------------|

Phoenix Contact 2026 © - all rights reserved
<https://www.phoenixcontact.com>

Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com