

MTKD-NICR/CUNI EX - Thermoelectric voltage terminal block pair

3100076

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Thermoelectric voltage terminal block pair, TC type E, 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
- This ensures that no false thermoelectric voltages occur at the junctions of the thermocouple/terminal block/compensating line and that the basic values in accordance with EN 60584/DIN EN 60584 are observed
- 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	3100076
Packing unit	50 pc
Minimum order quantity	50 pc
Sales key	BE12
Product key	BE1211
GTIN	4046356678155
Weight per piece (including packing)	16.423 g
Weight per piece (excluding packing)	16.423 g
Customs tariff number	85369010
Country of origin	PL

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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
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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	7 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.)

Ex data

Rated data (ATEX/IECEx)

Identification	⊕ II 2 G Ex eb IIC Gb
Operating temperature range	-50 °C ... 110 °C
Ex-certified accessories	3101029 D-MTK
	3101223 ATS-MTK
	1205066 SZS 1,0X4,0 VDE

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	1201442 E/UK
Ex temperature increase	5 K (1.1 A / 1 mm ²)
Rated insulation voltage	250 V
output	(Permanent)

Ex level General

Rated voltage	275 V
Maximum load current	1 A
Contact resistance	11 mΩ

Ex connection data General

Torque range	0.6 Nm ... 0.8 Nm
Nominal cross section	1 mm ²
Rated cross section AWG	16
Connection capacity rigid	0.2 mm ² ... 4 mm ²
Connection capacity AWG	24 ... 12
Connection capacity flexible	0.2 mm ² ... 2.5 mm ²
Connection capacity AWG	24 ... 14

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

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

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Mechanical properties

Mechanical data

Open side panel	Yes
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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
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Mounting

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

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Drawings

Circuit diagram



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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/3100076>

 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	-

 EAC Ex Approval ID: RU C-DE.Ax07.B.03227				
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 IEC Ex Approval ID: IECExSEV19.0061U				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
keine	275 V	1 A	-	0.2 - 4
Only flexible conductors	275 V	1 A	-	0.2 - 2.5

 ATEX Approval ID: SEV19ATEX0335U				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
keine	275 V	1 A	-	0.2 - 4
Only flexible conductors	275 V	1 A	-	0.2 - 2.5

 UKCA-EX Approval ID: CML 22UKEX1229U				
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 EAC Ex Approval ID: KZ 7500525010101950				
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 CCC Approval ID: 2020322313000629				
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Classifications

ECLASS

ECLASS-13.0	27250115
ECLASS-15.0	27250115

ETIM

ETIM 10.0	EC000904
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UNSPSC

UNSPSC 21.0	39121400
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Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
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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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EF3.1 Climate Change

CO2e kg	0.118 kg CO2e
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