

# 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 mm<sup>2</sup> - 4 mm<sup>2</sup>, mounting type: NS 35/7,5, NS 35/15, NS 32, color: gray

## 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
Note	Made to order (non-returnable)
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
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 <sup>2</sup>

#### 1 level

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 <sup>2</sup> ... 4 mm <sup>2</sup>
Cross section AWG	24 ... 12 (converted acc. to IEC)
Conductor cross section flexible	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross section, flexible [AWG]	24 ... 14 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	0.2 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Flexible conductor cross section (ferrule with plastic sleeve)	0.2 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Nominal current	1 A
Maximum load current	1 A (with 4 mm <sup>2</sup> 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
	1201442 E/UK
Ex temperature increase	5 K (1.1 A / 1 mm <sup>2</sup> )

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Rated voltage	275 V
Rated insulation voltage	250 V
output	(Permanent)

## Ex level General

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 <sup>2</sup>
Rated cross section AWG	16
Connection capacity rigid	0.2 mm <sup>2</sup> ... 4 mm <sup>2</sup>
Connection capacity AWG	24 ... 12
Connection capacity flexible	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
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
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

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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, no longer than 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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## Classifications

### ECLASS

ECLASS-11.0	27141142
ECLASS-12.0	27141142
ECLASS-13.0	27250115

### ETIM

ETIM 9.0	EC000904
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### UNSPSC

UNSPSC 21.0	39121400
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## Environmental product compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

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