

# Thermoelectric voltage terminal block pair - MTKD-NICR/CUNI - 3100075

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Thermoelectric voltage terminal block pair, USA type E, Connection method: Screw connection, Number of positions: 1, Cross section: 0.2 mm<sup>2</sup> - 4 mm<sup>2</sup>, AWG: 24 - 12, Width: 10.4 mm, Color: gray, Mounting type: NS 35/7,5, NS 35/15, NS 32

The illustration shows version MTKD-CU/CUNI

## Why buy this product

- 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

## Key Commercial Data

Packing unit	50 STK
GTIN	 4 017918 092481

## Technical data

### General

Number of levels	1
Number of connections	2
Nominal cross section	2.5 mm <sup>2</sup>
Color	gray
Insulating material	PA
Flammability rating according to UL 94	V0
Connection in acc. with standard	IEC 60947-7-1
Maximum load current	1 A (with 4 mm <sup>2</sup> conductor cross section)
Nominal current I <sub>N</sub>	1 A
Nominal voltage U <sub>N</sub>	400 V (Voltage to the neighboring feed-through terminal block MTK.)
Open side panel	Yes
Shock protection test specification	DIN EN 50274 (VDE 0660-514):2002-11
Back of the hand protection	guaranteed
Finger protection	guaranteed
Result of surge voltage test	Test passed
Result of power-frequency withstand voltage test	Test passed
Power frequency withstand voltage setpoint	1.89 kV

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## Technical data

### General

Result of the test for mechanical stability of terminal points (5 x conductor connection)	Test passed
Result of bending test	Test passed
Bending test rotation speed	10 rpm
Bending test turns	135
Bending test conductor cross section/weight	0.2 mm <sup>2</sup> / 0.2 kg
	2.5 mm <sup>2</sup> / 0.7 kg
	4 mm <sup>2</sup> / 0.9 kg
Tensile test result	Test passed
Conductor cross section tensile test	0.2 mm <sup>2</sup>
Tractive force setpoint	10 N
Conductor cross section tensile test	2.5 mm <sup>2</sup>
Tractive force setpoint	50 N
Conductor cross section tensile test	4 mm <sup>2</sup>
Tractive force setpoint	60 N
Result of tight fit on support	Test passed
Tight fit on carrier	NS 35
Setpoint	1 N
Result of voltage-drop test	Test passed
Requirements, voltage drop	≤ 3.2 mV
Result of temperature-rise test	Test passed
Result of thermal test	Test passed
Proof of thermal characteristics (needle flame) effective duration	30 s
Relative insulation material temperature index (Elec., UL 746 B)	130 °C
Temperature index of insulation material (DIN EN 60216-1 (VDE 0304-21))	130 °C

### Dimensions

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

### Connection data

Connection method	Screw connection
Connection in acc. with standard	IEC 60947-7-1
Conductor cross section solid min.	0.2 mm <sup>2</sup>
Conductor cross section solid max.	4 mm <sup>2</sup>
Conductor cross section AWG min.	24
Conductor cross section AWG max.	12

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## Technical data

### Connection data

Conductor cross section flexible min.	0.2 mm <sup>2</sup>
Conductor cross section flexible max.	2.5 mm <sup>2</sup>
Min. AWG conductor cross section, flexible	24
Max. AWG conductor cross section, flexible	14
Conductor cross section flexible, with ferrule without plastic sleeve min.	0.2 mm <sup>2</sup>
Conductor cross section flexible, with ferrule without plastic sleeve max.	1.5 mm <sup>2</sup>
Conductor cross section flexible, with ferrule with plastic sleeve min.	0.2 mm <sup>2</sup>
Conductor cross section flexible, with ferrule with plastic sleeve max.	1.5 mm <sup>2</sup>
Stripping length	7 mm
Internal cylindrical gage	A3
Screw thread	M3
Tightening torque, min	0.6 Nm
Tightening torque max	0.8 Nm

### Standards and Regulations

Connection in acc. with standard	CUL
	IEC 60947-7-1
Flammability rating according to UL 94	V0

## Classifications

### eCl@ss

eCl@ss 4.0	27141117
eCl@ss 4.1	27141117
eCl@ss 5.0	27141120
eCl@ss 5.1	27141120
eCl@ss 6.0	27141120
eCl@ss 7.0	27141120
eCl@ss 8.0	27141142

### ETIM

ETIM 2.0	EC000902
ETIM 3.0	EC000902
ETIM 4.0	EC000902
ETIM 5.0	EC000904

### UNSPSC

UNSPSC 6.01	30211811
UNSPSC 7.0901	39121410
UNSPSC 11	39121410
UNSPSC 12.01	39121410
UNSPSC 13.2	39121410

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## Approvals

### Approvals

Approvals

UL Recognized / cUL Recognized / EAC / cULus Recognized

Ex Approvals

Approvals submitted

### Approval details

UL Recognized	
mm <sup>2</sup> /AWG/kcmil	28-12
Nominal current I <sub>N</sub>	10 A
Nominal voltage U <sub>N</sub>	300 V

cUL Recognized	
mm <sup>2</sup> /AWG/kcmil	28-12
Nominal current I <sub>N</sub>	10 A
Nominal voltage U <sub>N</sub>	300 V

EAC

cULus Recognized	
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## Drawings

Circuit diagram



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