MTKD-NICR/CUNI - Thermoelectric voltage terminal block pair

3100075

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The figure shows version MTKD-CU/CUNI

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^2 - 4 mm^2, 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
- 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	3100075
Packing unit	50 pc
Minimum order quantity	50 pc
Sales key	BE12
Product key	BE1211
GTIN	4017918092481
Weight per piece (including packing)	15.76 g
Weight per piece (excluding packing)	16.4 g
Customs tariff number	85369010
Country of origin	PL

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 mm²

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 mm² ... 4 mm²
Cross section AWG	24 ... 12 (converted acc. to IEC)
Conductor cross-section flexible	0.2 mm² ... 2.5 mm²
Conductor cross-section, flexible [AWG]	24 ... 14 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	0.2 mm² ... 1.5 mm²
Flexible conductor cross-section (ferrule with plastic sleeve)	0.2 mm² ... 1.5 mm²
Nominal current	1 A
Maximum load current	1 A (with 4 mm² 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

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

Electrical tests

Surge voltage test

Result	Test passed

Temperature-rise test

Requirement temperature-rise test	Increase in temperature ≤ 45 K
Result	Test passed

Power-frequency withstand voltage

Test voltage setpoint	1.89 kV
Result	Test passed

Mechanical properties

Mechanical data

Open side panel	Yes

Mechanical tests

Mechanical strength

Result	Test passed

Attachment on the carrier

DIN rail/fixing support	NS 35
Test force setpoint	1 N
Result	Test passed

Test for conductor damage and slackening

Rotation speed	10 rpm
Revolutions	135
	0.2 mm² / 0.2 kg

Conductor cross-section/weight	2.5 mm² / 0.7 kg
	4 mm² / 0.9 kg
Result	Test passed

Environmental and real-life conditions

Needle-flame test

Time of exposure	30 s
Result	Test passed

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

Drawings

Circuit diagram



Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/3100075

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	-

Classifications

ECLASS

ECLASS-13.0	27250115
ECLASS-15.0	27250115

ETIM

ETIM 10.0	EC000904

UNSPSC

UNSPSC 21.0	39121400

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%

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