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

3100047

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The figure shows version MTKD-CU/CUNI

Thermoelectric voltage terminal block pair, TC type J, 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	3100047
Packing unit	50 pc
Minimum order quantity	50 pc
Sales key	BE12
Product key	BE1211
GTIN	4046356678148
Weight per piece (including packing)	16.41 g
Weight per piece (excluding packing)	16.41 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.)

Ex data

Rated data (ATEX/IECEx)

Identification	Ⓔx 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 mm²)
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 mm²
Rated cross section AWG	16
Connection capacity rigid	0.2 mm² ... 4 mm²
Connection capacity AWG	24 ... 12
Connection capacity flexible	0.2 mm² ... 2.5 mm²
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

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

Drawings

Circuit diagram



Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/3100047

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

IECEx
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

EAC Ex
Approval ID: KZ 7500525010101950

CCC
Approval ID: 2020322313000629

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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