

MTKD-NICRSI/NISI EX - Thermoelectric voltage terminal block pair



3100103

<https://www.phoenixcontact.com/sg/products/3100103>

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Thermoelectric voltage terminal block pair, TC type N, 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

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	3100103
Packing unit	50 pc
Minimum order quantity	50 pc
Sales key	*****
Product key	BE1211
GTIN	4046356679176
Weight per piece (including packing)	16.3 g
Weight per piece (excluding packing)	16.3 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 ²

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 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 MTK feed-through terminal block)

Ex data

Rated data (ATEX/IECEx)

Identification	Ex 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 ²)

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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 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

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, 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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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/sg/products/3100103>

cULus Recognized Approval ID: E60425				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Use group B				
	250 V	10 A	28 - 12	-
Use group D				
	300 V	10 A	28 - 12	-

EAC Ex Approval ID: RU C-DE.Ax07.B.03227				
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IECEx Approval ID: IECExSEV19.0061U				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
	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
	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-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

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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