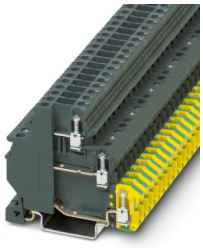
TBIO 2,5-PE/L/L I - Sensor/actuator terminal block

3246889

https://www.phoenixcontact.com/gb/products/3246889

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Sensor/actuator terminal block, bridgeable upper levels for signal feed-through, middle level bridgeable with insertion bridges for signal feed-through, lower level with PE foot, nom. voltage: 250 V, Thermal continuous current I_{th}: 20 A, number of connections: 3, number of positions: 3, connection method: Screw connection, Rated cross section: 2.5 mm^2, cross section: 0.2 mm^2 - 4 mm^2, mounting type: NS 35/7,5, NS 35/15, color: dark gray

Commercial data

Item number	3246889
Packing unit	50 pc
Minimum order quantity	50 pc
Sales key	BEK217
Product key	BEK217
GTIN	4046356689731
Weight per piece (including packing)	16.812 g
Weight per piece (excluding packing)	16.812 g
Customs tariff number	85369010
Country of origin	PL

Technical data

Product properties

Product type	Sensor/actuator terminal block
Product family	TB
Number of positions	3
Number of connections	3
Number of rows	3

Insulation characteristics

Overvoltage category	III

Electrical properties

Rated surge voltage	4 kV
Maximum power dissipation for nominal condition	0.77 W

Connection data

Grounding foot	Yes
Number of connections per level	2
Nominal cross section	2.5 mm²
Rated cross section AWG	12
Connection method	Screw connection
Screw thread	M2,5
Note	Please observe the current carrying capacity of the DIN rails.
Tightening torque	0.4 ... 0.5 Nm
Stripping length	8 mm
Internal cylindrical gage	A1
	B2
Connection in acc. with standard	IEC 60947-7-1/IEC 60947-7-2
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 ... 2.5 mm²
Flexible conductor cross-section (ferrule with plastic sleeve)	0.2 mm² ... 2.5 mm²
Cross-section with insertion bridge, rigid	0.2 mm² ... 4 mm²
Cross-section with insertion bridge, flexible	0.2 mm² ... 2.5 mm²
Cross-section with insertion bridge, flexible, with ferrule without plastic sleeve	0.25 mm² (2.5 mm²)
Cross-section with insertion bridge, flexible, with ferrule with plastic sleeve	0.25 mm² ... 2.5 mm²
Nominal cross section	2.5 mm²
Thermal continuous current I_{th}	20 A
Maximum load current	20 A (with 4 mm² conductor cross-section)

Nominal voltage	250 V

Dimensions

Width	6.2 mm
Height	62.5 mm
Depth on NS 35/7,5	55.3 mm
Depth on NS 35/15	62.8 mm

Material specifications

Color	traffic gray B (RAL 7043)
Flammability rating according to UL 94	V0
Insulating material group	I
Insulating material	PA
Static insulating material application in cold	-60 °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
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

Test voltage setpoint	4.8 kV
Result	Test passed

Temperature-rise test

Requirement temperature-rise test	Increase in temperature ≤ 45 K
Result	Test passed
Short-time withstand current 2.5 mm²	0.3 kA
Short-time withstand current 4 mm²	0.48 kA
Result	Test passed

Power-frequency withstand voltage

Test voltage setpoint	1.5 kV
Result	Test passed

Mechanical properties

Mechanical data

Open side panel	No

Mechanical tests

Mechanical strength

Result	Test passed

Attachment on the carrier

DIN rail/fixing support	NS 35
Result	Test passed

Test for conductor damage and slackening

Rotation speed	10 rpm
Revolutions	135
Conductor cross-section/weight	0.2 mm² / 0.2 kg
	2.5 mm² / 0.7 kg
	4 mm² / 0.9 kg
Result	Test passed

Environmental and real-life conditions

Aging

Temperature cycles	192
Result	Test passed

Needle-flame test

Time of exposure	30 s
Result	Test passed

Oscillation/broadband noise

Specification	DIN EN 50155 (VDE 0115-200):2022-06
Spectrum	Long life test category 1, class B, body mounted
Frequency	f_1 = 5 Hz to f_2 = 150 Hz
ASD level	1.857 $(m/s^2)^2/Hz$
Acceleration	0.8g
Test duration per axis	5 h
Test directions	X-, Y- and Z-axis
Result	Test passed

Shocks

Specification	DIN EN 50155 (VDE 0115-200):2022-06
Pulse shape	Half-sine
Acceleration	5g
Shock duration	30 ms
Number of shocks per direction	3
Test directions	X-, Y- and Z-axis (pos. and neg.)
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

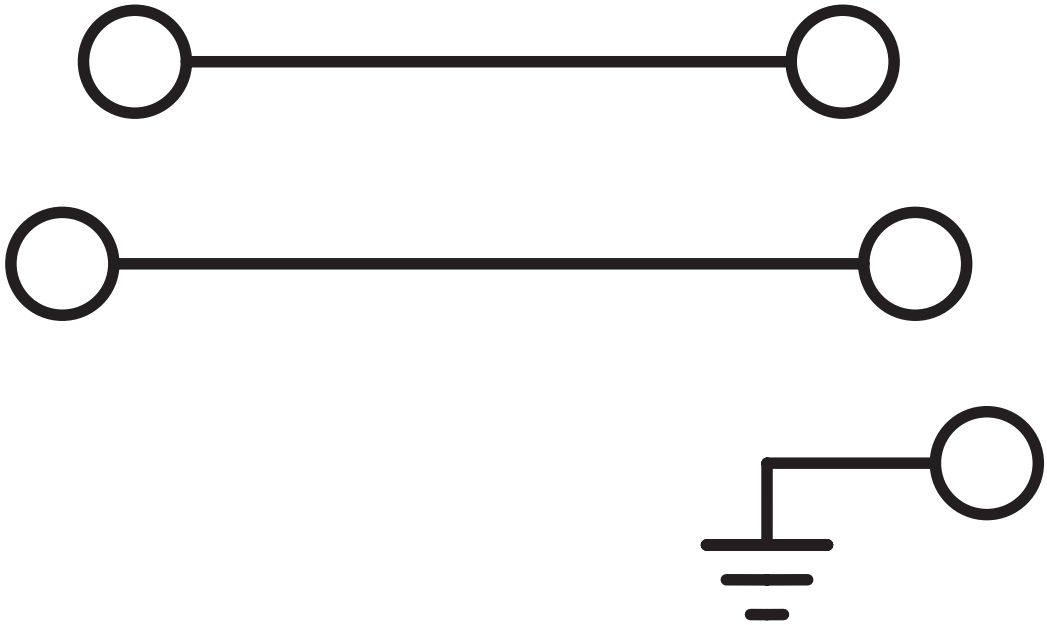
Connection in acc. with standard	IEC 60947-7-1/IEC 60947-7-2

Mounting

Mounting type	NS 35/7,5
	NS 35/15

Drawings

Circuit diagram



Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/gb/products/3246889

EAC
Approval ID: KZ7500651131219505

cULus Recognized
Approval ID: E60425

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
D				
	-	-	20 - 12	-

Classifications

ECLASS

ECLASS-13.0	27250112
ECLASS-15.0	27250112

ETIM

ETIM 10.0	EC000900

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%

EF3.1 Climate Change

CO2e kg	0.154 kg CO2e

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