

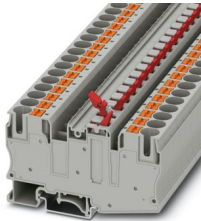
PT 10-MTL KNIFE-RD - Knife-disconnect terminal block



1076793

<https://www.phoenixcontact.com/sg/products/1076793>

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Knife-disconnect terminal block, nom. voltage: 500 V, nominal current: 20 A, connection method: Push-in connection, Rated cross section: 10 mm², cross section: 0.5 mm² - 16 mm², mounting: NS 35/7,5, NS 35/15, NS 32, color: gray

Commercial data

Item number	1076793
Packing unit	50 pc
Minimum order quantity	50 pc
Sales key	*****
Product key	BE2231
GTIN	4055626785066
Weight per piece (including packing)	31.755 g
Weight per piece (excluding packing)	29.6 g
Customs tariff number	85369010
Country of origin	CN

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Technical data

Product properties

Product type	Disconnect terminal block
Number of connections	2
Number of rows	1

Data management status

Article revision	02
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Insulation characteristics

Overvoltage category	III
Degree of pollution	3

Electrical properties

Rated surge voltage	6 kV
Maximum power dissipation for nominal condition	1.82 W

Connection data

Number of connections per level	2
Nominal cross section	10 mm ²
Stripping length	18 mm
Internal cylindrical gage	A6
Connection in acc. with standard	IEC 60947-7-1
Conductor cross section rigid	0.5 mm ² ... 16 mm ²
Cross section AWG	20 ... 6 (converted acc. to IEC)
Conductor cross section flexible	0.5 mm ² ... 16 mm ²
Conductor cross section, flexible [AWG]	20 ... 6 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	0.5 mm ² ... 16 mm ²
Flexible conductor cross section (ferrule with plastic sleeve)	0.5 mm ² ... 16 mm ²
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm ² ... 4 mm ²
Nominal current	20 A
Maximum load current	20 A (with a 16 mm ² conductor cross section, rigid)
Nominal voltage	500 V
Nominal cross section	10 mm ²

Connection cross sections directly pluggable

Conductor cross section rigid	1 mm ² ... 16 mm ²
Conductor cross-section flexible (ferrule without plastic sleeve)	1 mm ² ... 16 mm ²
Flexible conductor cross section (ferrule with plastic sleeve)	1 mm ² ... 16 mm ²

Dimensions

Width	10.2 mm
End cover width	2.2 mm

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Height	88.9 mm
Depth	49.5 mm
Depth on NS 35/7,5	50.5 mm
Depth on NS 35/15	58 mm

Material specifications

Color	gray (RAL 7042)
Flammability rating according to UL 94	V0
Insulating material group	I
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

Test voltage setpoint	7.3 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 mm ²	0.3 kA
Result	Test passed

Power-frequency withstand voltage

Test voltage setpoint	1.89 kV
Result	Test passed

Mechanical properties

Mechanical data

Open side panel	No
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Mechanical tests

Mechanical strength

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Result	Test passed
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Attachment on the carrier

DIN rail/fixing support	NS 32/NS 35
Test force setpoint	5 N
Result	Test passed

Test for conductor damage and slackening

Rotation speed	10 rpm
Revolutions	135
Conductor cross section/weight	0.5 mm ² / 0.3 kg
	10 mm ² / 2 kg
	16 mm ² / 2.9 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):2018-05
Spectrum	Service life test category 2, bogie-mounted
Frequency	$f_1 = 5 \text{ Hz}$ to $f_2 = 250 \text{ Hz}$
ASD level	6.12 (m/s ²) ² /Hz
Acceleration	3.12g
Test duration per axis	5 h
Test directions	X-, Y- and Z-axis
Result	Test passed

Shocks

Specification	DIN EN 50155 (VDE 0115-200):2018-05
Pulse shape	Half-sine
Acceleration	30g
Shock duration	18 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.)
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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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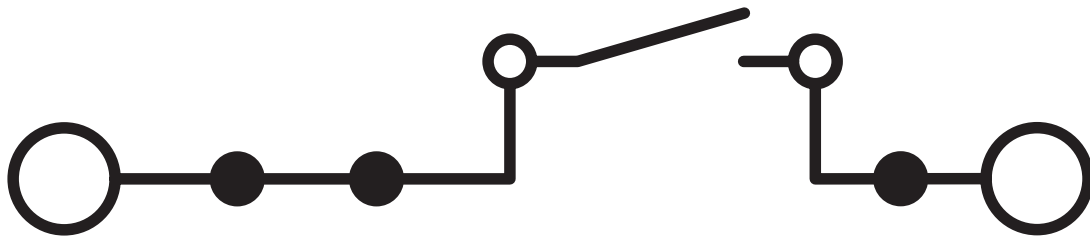


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Drawings

Circuit diagram



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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/sg/products/1076793>

 CSA Approval ID: 158887				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Use group B	300 V	20 A	20 - 6	-
Use group C	300 V	20 A	20 - 6	-
Use group D	600 V	5 A	20 - 6	-

 **cULus Recognized**
Approval ID: E60425

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Classifications

ECLASS

ECLASS-11.0	27141126
ECLASS-12.0	27141126
ECLASS-13.0	27250108

ETIM

ETIM 9.0	EC000902
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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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