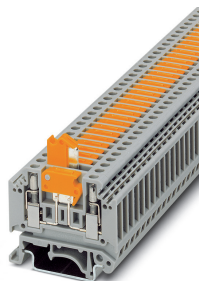


Knife disconnect terminal block - MTK-P/P - 3104013

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Knife disconnect terminal block, With test socket screws for insertion of test plugs, nom. voltage: 400 V, nominal current: 16 A, 1 level, connection method: Screw connection, Rated cross section: 2.5 mm², cross section: 0.2 mm² - 4 mm², mounting: NS 35/7,5, NS 35/15, NS 32, color: gray

Your advantages

- High current carrying capacity of up to 16 A
- Space-saving design



Key Commercial Data

Packing unit	50 pc
GTIN	 4 017918 092689
GTIN	4017918092689
Weight per Piece (excluding packing)	9.708 g
Weight per piece (including packing)	9.708 g
Custom tariff number	85369010
Country of origin	Poland
Sales Key	A1 - Terminal Strips

Technical data

General

Number of rows	1
Number of connections	2
Nominal cross section	2.5 mm ²
Color	gray
Insulating material	PA
Flammability rating according to UL 94	V0
Rated surge voltage	6 kV
Degree of pollution	3
Overvoltage category	III

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Technical data

General

Insulating material group	I
Connection in acc. with standard	IEC 60947-7-1
Nominal current I_N	16 A (with 4 mm ² conductor cross section)
Maximum load current	16 A (with 4 mm ² conductor cross section)
Nominal voltage U_N	400 V
Open side panel	Yes
Maximum power dissipation for nominal condition	0.77 W
Shock protection test specification	DIN EN 50274 (VDE 0660-514):2002-11
Back of the hand protection	guaranteed
Finger protection	guaranteed
Result of surge voltage test	Test passed
Result of power-frequency withstand voltage test	Test passed
Power frequency withstand voltage setpoint	1.89 kV
Result of the test for mechanical stability of terminal points (5 x conductor connection)	Test passed
Result of flexion and pull-out test	Test passed
Bending test rotation speed	10 (+/- 2) rpm
Bending test turns	135
Bending test conductor cross section/weight	0.2 mm ² / 0.2 kg
	2.5 mm ² / 0.7 kg
	4 mm ² / 0.9 kg
Tensile test result	Test passed
Conductor cross section tensile test	0.2 mm ²
Tractive force setpoint	10 N
Conductor cross section tensile test	2.5 mm ²
Tractive force setpoint	50 N
Conductor cross section	4 mm ²
Tractive force setpoint	60 N
Result of voltage-drop test	Test passed
Requirements, voltage drop	$U_1 \leq 6,4 \text{ mV}$ (1,6 mV x number of conductor clamping units or disconnect unit contact points) $U_2 \leq 1,5 \times U_1$
Result of temperature-rise test	Test passed
Short circuit stability result	Test passed
Conductor cross section short circuit testing	1.5 mm ²
Short-time current	0.18 kA
Result of thermal test	Test passed
Proof of thermal characteristics (needle flame) effective duration	30 s
Oscillation, broadband noise test result	Test passed
Test specification, oscillation, broadband noise	DIN EN 50155 (VDE 0115-200):2018-05
Test spectrum	Service life test category 2, bogie-mounted

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Technical data

General

Test 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
Shock test result	Test passed
Shock form	Semi-sinusoidal
Acceleration	5g
Shock duration	30 ms
Number of shocks per direction	3
Test directions	X-, Y- and Z-axis (pos. and neg.)
Relative insulation material temperature index (Elec., UL 746 B)	130 °C
Temperature index of insulation material (DIN EN 60216-1 (VDE 0304-21))	125 °C
Static insulating material application in cold	-60 °C
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
Calorimetric heat release NFPA 130 (ASTM E 1354)	27,5 MJ/kg
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

Dimensions

Width	5.2 mm
End cover width	1 mm
Length	46 mm
Height NS 35/7,5	51.5 mm
Height NS 35/15	59 mm
Height NS 32	56.5 mm

Connection data

Conductor cross section solid min.	0.2 mm ²
Conductor cross section solid max.	4 mm ²
Conductor cross section flexible min.	0.2 mm ²
Conductor cross section flexible max.	2.5 mm ²
Conductor cross section AWG min.	24
Conductor cross section AWG max.	12
Conductor cross section flexible, with ferrule without plastic sleeve min.	0.25 mm ²
Conductor cross section flexible, with ferrule without plastic sleeve max.	2.5 mm ²
Conductor cross section flexible, with ferrule with plastic sleeve min.	0.25 mm ²

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Technical data

Connection data

Conductor cross section flexible, with ferrule with plastic sleeve max.	1.5 mm ²
2 conductors with same cross section, solid min.	0.2 mm ²
2 conductors with same cross section, solid max.	1.5 mm ²
2 conductors with same cross section, stranded min.	0.2 mm ²
2 conductors with same cross section, stranded max.	1.5 mm ²
Two conductors with the same cross section stranded, with ferrule and without plastic sleeve, minimum	0.25 mm ²
Two conductors with the same cross section stranded, with ferrule and without plastic sleeve, maximum	1.5 mm ²
Two conductors with the same cross section, flexible, with TWIN ferrules, with plastic sleeve, minimum	0.5 mm ²
Two conductors with the same cross section, flexible, with TWIN ferrules, with plastic sleeve, maximum	1.5 mm ²
Cross section with insertion bridge, solid max.	4 mm ²
Cross section with insertion bridge, stranded max.	2.5 mm ²
Connection method	Screw connection
Stripping length	7 mm
Internal cylindrical gage	A3
Screw thread	M3
Tightening torque, min	0.5 Nm
Tightening torque max	0.6 Nm

Ambient conditions

Operating temperature	-60 °C ... 105 °C (max. short-term operating temperature 125°C)
Ambient temperature (storage/transport)	-25 °C ... 60 °C (for a short time, not exceeding 24 h, -60 °C to +70 °C)
Permissible humidity (storage/transport)	30 % ... 70 %
Ambient temperature (assembly)	-5 °C ... 70 °C
Ambient temperature (actuation)	-5 °C ... 70 °C

Standards and Regulations

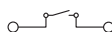
Connection in acc. with standard	CSA
	IEC 60947-7-1

Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

Drawings

Circuit diagram



Knife disconnect terminal block - MTK-P/P - 3104013

Classifications

eCl@ss

eCl@ss 10.0.1	27141126
eCl@ss 11.0	27141126
eCl@ss 4.0	27141100
eCl@ss 4.1	27141100
eCl@ss 5.0	27141100
eCl@ss 5.1	27141100
eCl@ss 6.0	27141100
eCl@ss 7.0	27141126
eCl@ss 9.0	27141126

ETIM

ETIM 2.0	EC000902
ETIM 3.0	EC000902
ETIM 4.0	EC000902
ETIM 6.0	EC000902
ETIM 7.0	EC000902

UNSPSC

UNSPSC 6.01	30211811
UNSPSC 7.0901	39121410
UNSPSC 11	39121410
UNSPSC 12.01	39121410
UNSPSC 13.2	39121410
UNSPSC 18.0	39121410
UNSPSC 19.0	39121410
UNSPSC 20.0	39121410
UNSPSC 21.0	39121410

Approvals

Approvals

Approvals

CSA / RS / DNV GL / EAC / cULus Recognized

Ex Approvals

Approval details

Knife disconnect terminal block - MTK-P/P - 3104013

Approvals

CSA		http://www.csagroup.org/services-industries/product-listing/	13631
Nominal voltage UN		300 V	
Nominal current IN		15 A	
mm ² /AWG/kcmil		28-12	

RS		http://www.rs-head.spb.ru/en/index.php	17.00013.272
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DNV GL		https://approvalfinder.dnvgl.com/	TAE00001CT
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EAC			RU C- DE.BL08.B.00534
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cULus Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	E60425
	B	D	
Nominal voltage UN	250 V	300 V	
Nominal current IN	10 A	10 A	
mm ² /AWG/kcmil	28-12	28-12	

Accessories

Accessories

DIN rail

DIN rail perforated - NS 32 PERF 2000MM - 1201002



DIN rail perforated, acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, G profile, color: silver

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Accessories

DIN rail, unperforated - NS 32 UNPERF 2000MM - 1201015



DIN rail, unperforated, acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, G profile, color: silver

DIN rail perforated - NS 35/ 7,5 PERF 2000MM - 0801733



DIN rail perforated, acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, Standard profile, color: silver

DIN rail, unperforated - NS 35/ 7,5 UNPERF 2000MM - 0801681



DIN rail, unperforated, acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, Standard profile, color: silver

DIN rail perforated - NS 35/ 7,5 WH PERF 2000MM - 1204119



DIN rail perforated, acc. to EN 60715, material: Steel, Galvanized, white passivated, Standard profile, color: silver

DIN rail, unperforated - NS 35/ 7,5 WH UNPERF 2000MM - 1204122



DIN rail, unperforated, acc. to EN 60715, material: Steel, Galvanized, white passivated, Standard profile, color: silver

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Accessories

DIN rail, unperforated - NS 35/ 7,5 AL UNPERF 2000MM - 0801704



DIN rail, unperforated, acc. to EN 60715, material: Aluminum, uncoated, Standard profile, color: silver

DIN rail perforated - NS 35/ 7,5 ZN PERF 2000MM - 1206421



DIN rail perforated, acc. to EN 60715, material: Steel, galvanized, Standard profile, color: silver

DIN rail, unperforated - NS 35/ 7,5 ZN UNPERF 2000MM - 1206434



DIN rail, unperforated, acc. to EN 60715, material: Steel, galvanized, Standard profile, color: silver

DIN rail, unperforated - NS 35/ 7,5 CU UNPERF 2000MM - 0801762



DIN rail, unperforated, acc. to EN 60715, material: Copper, uncoated, Standard profile, color: copper-colored

End cap - NS 35/ 7,5 CAP - 1206560



DIN rail end piece, for DIN rail NS 35/7.5

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Accessories

DIN rail perforated - NS 35/15 PERF 2000MM - 1201730



DIN rail perforated, similar to EN 60715, material: Steel, galvanized, passivated with a thick layer, Standard profile, color: silver

DIN rail, unperforated - NS 35/15 UNPERF 2000MM - 1201714



DIN rail, unperforated, similar to EN 60715, material: Steel, galvanized, passivated with a thick layer, Standard profile, color: silver

DIN rail perforated - NS 35/15 WH PERF 2000MM - 0806602



DIN rail perforated, similar to EN 60715, material: Steel, Galvanized, white passivated, Standard profile, color: silver

DIN rail, unperforated - NS 35/15 WH UNPERF 2000MM - 1204135



DIN rail, unperforated, similar to EN 60715, material: Steel, Galvanized, white passivated, Standard profile, color: silver

DIN rail, unperforated - NS 35/15 AL UNPERF 2000MM - 1201756



DIN rail, unperforated, similar to EN 60715, material: Aluminum, uncoated, Standard profile, color: silver

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Accessories

DIN rail perforated - NS 35/15 ZN PERF 2000MM - 1206599



DIN rail perforated, similar to EN 60715, material: Steel, galvanized, Standard profile, color: silver

DIN rail, unperforated - NS 35/15 ZN UNPERF 2000MM - 1206586



DIN rail, unperforated, similar to EN 60715, material: Steel, galvanized, Standard profile, color: silver

DIN rail, unperforated - NS 35/15 CU UNPERF 2000MM - 1201895



DIN rail, unperforated, similar to EN 60715, material: Copper, uncoated, Standard profile, color: copper-colored

End cap - NS 35/15 CAP - 1206573



DIN rail end piece, for DIN rail NS 35/15

DIN rail, unperforated - NS 35/15-2,3 UNPERF 2000MM - 1201798



DIN rail, unperforated, acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, Standard profile 2.3 mm, color: silver

End block

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Accessories

End clamp - CLIPFIX 35 - 3022218



Quick mounting end clamp for NS 35/7,5 DIN rail or NS 35/15 DIN rail, with marking option, width: 9.5 mm, color: gray

End clamp - CLIPFIX 35-5 - 3022276



Quick mounting end clamp for NS 35/7,5 DIN rail or NS 35/15 DIN rail, with marking option, with parking option for FBS...5, FBS...6, KSS 5, KSS 6, width: 5.15 mm, color: gray

End clamp - E/NS 35 N - 0800886



End clamp, width: 9.5 mm, color: gray

End clamp - E/UK - 1201442



End clamp, Mounting on a DIN rail NS 32 or NS 35, material: PA, color: gray

End clamp - E/UK 1 - 1201413



End clamps, for supporting the ends of double-level and three-level terminal blocks, width: 10 mm, color: gray

End cover

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Accessories

End cover - D-MTK - 3101029



End cover, length: 46 mm, width: 1 mm, height: 28.7 mm, color: gray

End cover - D-MTK BU - 3101090



End cover, length: 46.2 mm, width: 1 mm, height: 28.3 mm, color: blue

Insertion bridge

Insertion bridge - EBL 3- 5 - 2303158



Insertion bridge, pitch: 5.2 mm, color: gray

Insertion bridge - EBL 2- 5 - 2303145



Insertion bridge, pitch: 5.2 mm, color: gray

Insertion bridge - EBL 10- 5 - 2303132



Insertion bridge, pitch: 5.2 mm, color: gray

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Accessories

Insertion bridge - EBL 4- 5 - 2303161



Insertion bridge, pitch: 5.2 mm, color: gray

Labeled terminal marker

Zack marker strip - ZB 5 CUS - 0824962



Zack marker strip, can be ordered: Strip, white, labeled according to customer specifications, mounting type: snap into tall marker groove, for terminal block width: 5.2 mm, lettering field size: 5.15 x 10.5 mm, Number of individual labels: 10

Zack marker strip - ZB 5,LGS:FORTL.ZAHLEN - 1050017



Zack marker strip, Strip, white, labeled, printed horizontally: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 491 ... 500, mounting type: snap into tall marker groove, for terminal block width: 5.2 mm, lettering field size: 5.15 x 10.5 mm, Number of individual labels: 10

Zack marker strip - ZB 5,QR:FORTL.ZAHLEN - 1050020



Zack marker strip, white, Printed vertically: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 491 ... 500, mounting type: snap into tall marker groove, for terminal block width: 5.2 mm, lettering field size: 5.15 x 10.5 mm

Zack marker strip - ZB 5,LGS:GLEICHE ZAHLEN - 1050033



Zack marker strip, Strip, white, labeled, can be labeled with: CMS-P1-PLOTTER, printed horizontally: Identical numbers 1 or 2, etc. up to 100, mounting type: snap into tall marker groove, for terminal block width: 5.2 mm, lettering field size: 5.15 x 10.5 mm, Number of individual labels: 10

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Accessories

Zack marker strip - ZB 5,LGS:L1-N,PE - 1050415



Zack marker strip, Strip, white, labeled, horizontal: L1, L2, L3, N, PE, L1, L2, L3, N, PE, mounting type: snap into tall marker groove, for terminal block width: 5.2 mm, lettering field size: 5.15 x 10.5 mm, Number of individual labels: 10

Marker for terminal blocks - UC-TM 5 CUS - 0824581



Marker for terminal blocks, can be ordered: by sheet, white, labeled according to customer specifications, mounting type: snap into tall marker groove, for terminal block width: 5.2 mm, lettering field size: 10.5 x 4.6 mm, Number of individual labels: 96

Marker for terminal blocks - UCT-TM 5 CUS - 0829595



Marker for terminal blocks, can be ordered: by sheet, white, labeled according to customer specifications, mounting type: snap into tall marker groove, for terminal block width: 5.2 mm, lettering field size: 4.6 x 10.5 mm, Number of individual labels: 72

Partition plate

Partition plate - ATS-MTK - 3101223



Partition plate, width: 1 mm, color: gray

Screwdriver tools

Screwdriver - SZG 0,6X3,5 VDE - 1205121



Screwdriver, slot-headed, graded, for test socket screws, size: 0.6 x 3.5 x 100 mm, 2-component grip, with non-slip grip

Terminal marking

Knife disconnect terminal block - MTK-P/P - 3104013

Accessories

Zack marker strip - ZB 5 :UNBEDRUCKT - 1050004



Zack marker strip, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snap into tall marker groove, for terminal block width: 5.2 mm, lettering field size: 5.1 x 10.5 mm, Number of individual labels: 10

Marker for terminal blocks - UC-TM 5 - 0818108



Marker for terminal blocks, Sheet, white, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, PLOTMARK, CMS-P1-PLOTTER, mounting type: snap into tall marker groove, for terminal block width: 5.2 mm, lettering field size: 10.5 x 4.6 mm, Number of individual labels: 96

Marker for terminal blocks - UCT-TM 5 - 0828734



Marker for terminal blocks, Sheet, white, unlabeled, can be labeled with: TOPMARK NEO, TOPMARK LASER, BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, THERMOMARK PRIME, THERMOMARK CARD 2.0, THERMOMARK CARD, mounting type: snap into tall marker groove, for terminal block width: 5.2 mm, lettering field size: 4.6 x 10.5 mm, Number of individual labels: 72