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Multi-level terminal block, Cross section: 0.2 mm² - 10 mm², AWG: 24 - 8, Connection type: Screw connection, Width: 8.2 mm, Color: gray, Mounting type: NS 35/7,5, NS 35/15

#### Why buy this product

- The large wiring space enables the connection of solid and stranded conductors without ferrules, even above the nominal cross section
- For a clear overview, each terminal point supports large-surface labeling
- Optimum screwdriver guidance through closed screw shafts
- ☑ A very high wiring density is achieved with the compact three-level terminal blocks
- The cable entry funnel enables the use of conductors with ferrules and plastic collars within the nominal cross section



### **Key Commercial Data**

Packing unit	1 STK
Weight per Piece (excluding packing)	57.200 g
Custom tariff number	85369010
Country of origin	Poland

#### Technical data

#### **Environmental Product Compliance**

China RoHS	Hazardous substances above threshold values;
	Environmentally Friendly Use Period = 50;
	For details go to tab "Downloads", Category "Manufacturer's declaration"

#### General

Number of levels	3
Number of connections	6
Nominal cross section	6 mm <sup>2</sup>
Color	gray



## Technical data

#### General

Insulating material	PA
Flammability rating according to UL 94	V0
Rated surge voltage	8 kV
Degree of pollution	3
Overvoltage category	III
Insulating material group	I
Connection in acc. with standard	IEC 60947-7-1
Nominal current I <sub>N</sub>	36 A
Maximum load current	50 A (with 10 mm² conductor cross section)
Nominal voltage U <sub>N</sub>	1000 V
Open side panel	Yes
Number of positions	1
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
Surge voltage test setpoint	9.8 kV
Result of power-frequency withstand voltage test	Test passed
Power frequency withstand voltage setpoint	2.2 kV
Checking the mechanical stability of terminal points (5 x conductor connection)	Test passed
Result of bending test	Test passed
Bending test rotation speed	10 rpm
Bending test turns	135
Bending test conductor cross section/weight	0.2 mm <sup>2</sup> / 0.2 kg
	6 mm <sup>2</sup> / 1.4 kg
	10 mm² / 2 kg
Tensile test result	Test passed
Conductor cross section tensile test	0.2 mm²
Tractive force setpoint	10 N
Conductor cross section tensile test	6 mm²
Tractive force setpoint	80 N
Conductor cross section tensile test	10 mm <sup>2</sup>
Tractive force setpoint	90 N
Result of tight fit on support	Test passed
Tight fit on carrier	NS 35
Setpoint	5 N



## Technical data

#### General

Result of voltage-drop test	Test passed
Requirements, voltage drop	≤ 3.2 mV
Result of temperature-rise test	Test passed
Short circuit stability result	Test passed
Conductor cross section short circuit testing	10 mm <sup>2</sup>
Short-time current	1.2 kA
Conductor cross section short circuit testing	10 mm <sup>2</sup>
Short-time current	1.2 kA
Conductor cross section short circuit testing	10 mm <sup>2</sup>
Short-time current	1.2 kA
Result of thermal test	Test passed
Proof of thermal characteristics (needle flame) effective duration	30 s
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
Behavior in fire for rail vehicles (DIN 5510-2)	Test passed
Flame test method (DIN EN 60695-11-10)	V0
Oxygen index (DIN EN ISO 4589-2)	>32 %
NF F16-101, NF F10-102 Class I	2
NF F16-101, NF F10-102 Class F	2
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	8.2 mm
Length	110 mm
Height NS 35/7,5	98.8 mm
Height NS 35/15	106.3 mm

#### Connection data

Connection method	Screw connection
Conductor cross section solid min.	0.2 mm <sup>2</sup>



## Technical data

#### Connection data

Conductor cross section solid max.	10 mm <sup>2</sup>
Conductor cross section flexible min.	0.2 mm²
Conductor cross section flexible max.	10 mm <sup>2</sup>
Conductor cross section AWG min.	24
Conductor cross section AWG max.	8
Conductor cross section flexible, with ferrule without plastic sleeve min.	0.25 mm²
Conductor cross section flexible, with ferrule without plastic sleeve max.	6 mm <sup>2</sup>
Conductor cross section flexible, with ferrule with plastic sleeve min.	0.25 mm²
Conductor cross section flexible, with ferrule with plastic sleeve max.	6 mm <sup>2</sup>
2 conductors with same cross section, solid min.	0.2 mm²
2 conductors with same cross section, solid max.	2.5 mm²
2 conductors with same cross section, stranded min.	0.2 mm²
2 conductors with same cross section, stranded max.	2.5 mm²
2 conductors with same cross section, stranded, ferrules without plastic sleeve, min.	0.25 mm <sup>2</sup>
2 conductors with same cross section, stranded, ferrules without plastic sleeve, max.	1.5 mm²
2 conductors with same cross section, stranded, TWIN ferrules with plastic sleeve, min.	0.5 mm²
2 conductors with same cross section, stranded, TWIN ferrules with plastic sleeve, max.	4 mm²
Stripping length	10 mm
Internal cylindrical gage	A5
Screw thread	M4
Tightening torque, min	1.5 Nm
Tightening torque max	1.8 Nm

#### Standards and Regulations

Connection in acc. with standard	IEC 60947-7-1
Flammability rating according to UL 94	V0

# Drawings

Circuit diagram





### Classifications

#### eCl@ss

eCl@ss 4.0	27141120
eCl@ss 4.1	27141120
eCl@ss 5.0	27141120
eCl@ss 5.1	27141120
eCl@ss 6.0	27141120
eCl@ss 7.0	27141120
eCI@ss 8.0	27141120
eCl@ss 9.0	27141120

#### **ETIM**

ETIM 2.0	EC000902
ETIM 3.0	EC000897
ETIM 4.0	EC000897
ETIM 5.0	EC000897

#### UNSPSC

UNSPSC 6.01	30211811
UNSPSC 7.0901	39121410
UNSPSC 11	39121410
UNSPSC 12.01	39121410
UNSPSC 13.2	39121410

## Approvals

Approvals

Approvals

CSA / UL Recognized / cUL Recognized / cULus Recognized

Ex Approvals

Approval details



## Approvals

CSA thttp://www.csagroup.org/us/en/services/testing-and-certification/certified-product-listing 13631				
	В	С		
mm²/AWG/kcmil	24-8	24-8		
Nominal current IN	40 A	40 A		
Nominal voltage UN	600 V	600 V		

UL Recognized http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm FILE E 60425				
	В	С		
mm²/AWG/kcmil	24-8	24-8		
Nominal current IN	40 A	40 A		
Nominal voltage UN	600 V	600 V		

cUL Recognized http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm FILE E 60425			
	В	С	
mm²/AWG/kcmil	24-8	24-8	
Nominal current IN	40 A	40 A	
Nominal voltage UN	600 V	600 V	

cULus Recognized • 1 http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm

#### Accessories

Accessories

DIN rail

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



DIN rail, material: steel galvanized and passivated with a thick layer, perforated, height 7.5 mm, width 35 mm, length: 2000 mm



#### Accessories

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



DIN rail, material: Steel, unperforated, height 7.5 mm, width 35 mm, length: 2 m

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



DIN rail 35 mm (NS 35)

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



DIN rail 35 mm (NS 35)

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



DIN rail, unperforated, Width: 35 mm, Height: 7.5 mm, Length: 2000 mm, Color: silver

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



DIN rail, material: Galvanized, perforated, height 7.5 mm, width 35 mm, length: 2 m



#### Accessories

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



DIN rail, material: Galvanized, unperforated, height 7.5 mm, width 35 mm, length: 2 m

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



DIN rail, material: Copper, unperforated, height 7.5 mm, width 35 mm, length: 2 m

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





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



DIN rail, material: steel galvanized and passivated with a thick layer, perforated, height 15 mm, width 35 mm, length: 2000 mm

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



DIN rail, material: Steel, unperforated, height 15 mm, width 35 mm, length: 2 m



#### Accessories

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



DIN rail 35 mm (NS 35)

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



DIN rail 35 mm (NS 35)

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



DIN rail, deep drawn, high profile, unperforated, 1.5 mm thick, material: aluminum, height 15 mm, width 35 mm, length 2000 mm

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



DIN rail, material: Galvanized, perforated, height 15 mm, width 35 mm, length: 2 m

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



DIN rail, material: Galvanized, unperforated, height 15 mm, width 35 mm, length: 2 m



#### Accessories

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



DIN rail, material: Copper, unperforated, 1.5 mm thick, height 15 mm, width 35 mm, length: 2 m

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, material: Steel, unperforated, 2.3 mm thick, height 15 mm, width 35 mm, length: 2 m

#### End block

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



#### Accessories

End clamp - E/NS 35 N - 0800886



End clamp, width: 9.5 mm, color: gray

#### End cover

End cover - D-UT 6-3L - 3046707



End cover, Length: 110 mm, Width: 2.2 mm, Height: 91.1 mm, Color: gray

#### Jumper

Plug-in bridge - FBS 2-8 - 3030284



Plug-in bridge, Pitch: 8.2 mm, Length: 29.6 mm, Width: 14.7 mm, Number of positions: 2, Color: red

Plug-in bridge - FBS 3-8 - 3030297



Plug-in bridge, Pitch: 8.2 mm, Number of positions: 3, Color: red

Plug-in bridge - FBS 4-8 - 3030307



Plug-in bridge, Pitch: 8.2 mm, Number of positions: 4, Color: red



#### Accessories

Plug-in bridge - FBS 5-8 - 3030310



Plug-in bridge, Pitch: 8.2 mm, Number of positions: 5, Color: red

#### Labeled terminal marker

Zack marker strip - ZB 8 CUS - 0825011



Zack marker strip, can be ordered: Strip, white, labeled according to customer specifications, Mounting type: Snap into tall marker groove, for terminal block width: 8.2 mm, Lettering field: 10.5 x 8.15 mm

Marker for terminal blocks - UC-TM 8 CUS - 0824597



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: 8.2 mm, Lettering field: 7.6 x 10.5 mm

Marker for terminal blocks - UCT-TM 8 CUS - 0829616



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: 8.2 mm, Lettering field: 7.6 x 10.5 mm

#### Zack marker strip - ZB 8,LGS:FORTL.ZAHLEN - 1052015



Zack marker strip, Strip, white, labeled, can be labeled with: Plotter, Printed horizontally: Consecutive numbers 1 - 10, 11 - 20, etc. up to 491 - 500, Mounting type: Snap into tall marker groove, for terminal block width: 8.2 mm, Lettering field: 10.5 x 8.15 mm



#### Accessories

Zack marker strip - ZB 8,QR:FORTL.ZAHLEN - 1052028



Zack marker strip, Strip, white, labeled, can be labeled with: Plotter, Printed vertically: Consecutive numbers 1 - 10, 11 - 20, etc. up to 91 - 100, Mounting type: Snap into tall marker groove, for terminal block width: 8.2 mm, Lettering field: 10.5 x 8.15 mm

Marker for terminal blocks - ZB 8,LGS:L1-N,PE - 1052413



Marker for terminal blocks, Strip, white, labeled, can be labeled with: Plotter, Horizontal: L1, L2, L3, N, PE, L1, L2, L3, N, PE, Mounting type: Snap into tall marker groove, for terminal block width: 8.2 mm, Lettering field: 10.5 x 8.15 mm

#### Marker pen

Marker pen - X-PEN 0,35 - 0811228



Marker pen without ink cartridge, for manual labeling of markers, labeling extremely wipe-proof, line thickness 0.35 mm

#### Partition plate

Spacer plate - DP PS-8 - 3036741



Spacer plate, Length: 22.4 mm, Width: 8.2 mm, Height: 29 mm, Number of positions: 1, Color: red

Planning and marking software



#### Accessories

Software - CLIP-PROJECT ADVANCED - 5146040



Multilingual software for convenient configuration of Phoenix Contact products on standard DIN rails.

#### Software - CLIP-PROJECT PROFESSIONAL - 5146053



Multilingual software for terminal strip configuration. A marking module enables the professional marking of markers and labels for identifying terminal blocks, conductors and cables, and devices.

#### Screwdriver tools

Screwdriver - SZS 1,0X4,0 VDE - 1205066



Screwdriver, slot-headed, VDE insulated, size: 1.0 x 4.0 x 100 mm, 2-component grip, with non-slip grip

#### Terminal marking

Zack marker strip - ZB 8:UNBEDRUCKT - 1052002



Zack marker strip, Strip, white, unlabeled, can be labeled with: Plotter, Mounting type: Snap into tall marker groove, for terminal block width: 8.2 mm, Lettering field: 10.5 x 8.15 mm

Marker for terminal blocks - UC-TM 8 - 0818072



Marker for terminal blocks, Sheet, white, unlabeled, can be labeled with: BLUEMARK CLED, BLUEMARK LED, Plotter, Mounting type: Snap into tall marker groove, for terminal block width: 8.2 mm, Lettering field: 7.6 x 10.5 mm



#### Accessories

Marker for terminal blocks - UCT-TM 8 - 0828740



Marker for terminal blocks, Sheet, white, unlabeled, can be labeled with: THERMOMARK CARD, BLUEMARK CLED, BLUEMARK LASER, THERMOMARK PRIME, Mounting type: Snap into tall marker groove, for terminal block width: 8.2 mm, Lettering field: 7.6 x 10.5 mm

#### Test plug terminal block

Test plugs - PS-8 - 3031005



Test plugs, Color: red

Test plugs - PS-8/2,3MM RD - 3048564



Test plugs, Color: red

#### Test socket

Test adapter - PAI-4-N GY - 3032871



4 mm test adapter, for terminal blocks with 5.2 mm, 6.2 mm and 8.2 mm pitch



#### Accessories

Test adapter - PAI-4-FIX BU - 3032729



4 mm test adapter, for terminal blocks with 8.2 mm pitch

Test adapter - PAI-4-FIX OG - 3034455



4 mm test adapter, for terminal blocks with 8.2 mm pitch

Test adapter - PAI-4-FIX YE - 3032745



4 mm test adapter, for terminal blocks with 8.2 mm pitch

Test adapter - PAI-4-FIX RD - 3032732



4 mm test adapter, for terminal blocks with 8.2 mm pitch

Test adapter - PAI-4-FIX GN - 3032758



4 mm test adapter, for terminal blocks with 8.2 mm pitch



#### Accessories

Test adapter - PAI-4-FIX BK - 3032774



4 mm test adapter, for terminal blocks with 8.2 mm pitch

Test adapter - PAI-4-FIX GY - 3032790



4 mm test adapter, for terminal blocks with 8.2 mm pitch

Test adapter - PAI-4-FIX VT - 3032761



4 mm test adapter, for terminal blocks with 8.2 mm pitch

Test adapter - PAI-4-FIX BN - 3032787



4 mm test adapter, for terminal blocks with 8.2 mm pitch

Test adapter - PAI-4-FIX WH - 3032797



4 mm test adapter, for terminal blocks with 8.2 mm pitch



#### Accessories

Test adapter - PAIS-4-FIX GY - 3032791



Test adapter, Color: gray

Test adapter - PAIS-4-FIX BK - 3032792



Test adapter, Color: black

Test adapter - PAIS-4-FIX RD - 3032793



Test adapter, Color: red

Test adapter - PAIS-4-FIX BU - 3032798



Test adapter, Color: blue

Test adapter - PAIS-4-FIX YE - 3032799



Test adapter, Color: yellow



### Accessories

Test adapter - PAIS-4-FIX GN - 3032801



Test adapter, Color: green

Test adapter - PAIS-4-FIX VT - 3032802



Test adapter, Color: violet

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