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Feed-through terminal block, Connection method: Spring-cage connection, Cross section: 0.08 mm² - 4 mm², AWG: 28 - 12, Width: 5.2 mm, Color: gray, Mounting type: NS 35/7,5, NS 35/15

### Why buy this product

- ☑ Compact potential distributors, the double connection enables four conductors to be connected on one potential
- ▼ Tested for railway applications

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### Key commercial data

Packing unit	50 pc
Minimum order quantity	50 pc
GTIN	4 017918 186784
Weight per Piece (excluding packing)	8.5 g
Custom tariff number	85369010
Country of origin	Germany

### Technical data

#### General

Number of levels	1	
Number of connections	4	
Color	gray	
Insulating material	PA	
Inflammability class according to UL 94	V0	
Area of application	Railway industry	
	Mechanical engineering	
	Plant engineering	
	Process industry	



## Technical data

### General

Maximum load current	28 A (In case of a 4 mm² conductor cross section, the maximum load current must not be exceeded by the total current of all connected conductors.)		
Rated surge voltage	8 kV		
Pollution degree	3		
Surge voltage category	III		
Insulating material group	I		
Connection in acc. with standard	IEC 60947-7-1		
Maximum load current	28 A (In case of a 4 mm² conductor cross section, the maximum load current must not be exceeded by the total current of all connected conductors.)		
Nominal current I <sub>N</sub>	24 A (with 4 mm² conductor cross section)		
Nominal voltage U <sub>N</sub>	800 V		
Maximum load current	28 A (In case of a 4 mm² conductor cross section, the maximum load current must not be exceeded by the total current of all connected conductors.)		
Open side panel	ja		
Shock protection test specification	DIN EN 50274 (VDE 0660-514):2002-11		
Back of the hand protection	guaranteed		
Finger protection	guaranteed		
Surge voltage test setpoint	9.8 kV		
Result of surge voltage test	Test passed		
Power frequency withstand voltage setpoint	2 kV		
Result of power-frequency withstand voltage test	Test passed		
Checking the mechanical stability of terminal points (5 x conductor connection)	Test passed		
Bending test rotation speed	10 rpm		
Bending test turns	135		
Bending test conductor cross section/weight	0.08 mm² / 0.1 kg		
	2.5 mm² / 0.7 kg		
	4 mm² / 0.9 kg		
Result of bending test	Test passed		
Conductor cross section tensile test	0.08 mm²		
Tractive force setpoint	5 N		
Conductor cross section tensile test	2.5 mm²		
Tractive force setpoint	50 N		
Conductor cross section tensile test	4 mm²		
Tractive force setpoint	60 N		
Tensile test result	Test passed		
Tight fit on carrier	NS 35		
Setpoint	1 N		
Result of tight fit test	Test passed		
Requirements, voltage drop	≤ 3.2 mV		



## Technical data

### General

Result of voltage drop test	Test passed	
Temperature-rise test	Test passed	
Conductor cross section short circuit testing	2.5 mm <sup>2</sup>	
Short-time current	0.3 kA	
Conductor cross section short circuit testing	4 mm²	
Short-time current	0.48 kA	
Short circuit stability result	Test passed	
Ageing test for screwless modular terminal block temperature cycles	192	
Result of aging test	Test passed	
Proof of thermal characteristics (needle flame) effective duration	30 s	
Result of thermal test	Test passed	
Test specification, oscillation, broadband noise	DIN EN 50155 (VDE 0115-200):2008-03	
Test spectrum	Service life test category 1, class B, body mounted	
Test frequency	$f_1 = 5 \text{ Hz to } f_2 = 150 \text{ Hz}$	
ASD level	0.02 g²/Hz	
Acceleration	0.8g	
Test duration per axis	5 h	
Test directions	X-, Y- and Z-axis	
Oscillation, broadband noise test result	Test passed	
Test specification, shock test	DIN EN 50155 (VDE 0115-200):2008-03	
Shock form	Half-sine	
Acceleration	5 g	
Shock duration	30 ms	
Number of shocks per direction	3	
Test directions	X-, Y- and Z-axis (pos. and neg.)	
Shock test result	Test passed	
Temperature index, insulating material (DIN EN 60216-1 (VDE 0304-21))	125 °C	
Static insulating material application in cold	-60 °C	

### **Dimensions**

Width	5.2 mm
End cover width	2.2 mm
Length	72 mm
Height NS 35/7,5	36.5 mm
Height NS 35/15	44 mm

## Connection data

Connection in acc. with standard	IEC 60947-7-1
Connection method	Spring-cage connection
Conductor cross section solid min.	0.08 mm²
Conductor cross section solid max.	4 mm²



## Technical data

### Connection data

Conductor cross section AWG min.	28
Conductor cross section AWG max.	12
Conductor cross section flexible min.	0.08 mm²
Conductor cross section flexible max.	2.5 mm²
Min. AWG conductor cross section, flexible	28
Max. AWG conductor cross section, flexible	14
Conductor cross section flexible, with ferrule without plastic sleeve min.	0.14 mm²
Conductor cross section flexible, with ferrule without plastic sleeve max.	2.5 mm <sup>2</sup>
Conductor cross section flexible, with ferrule with plastic sleeve min.	0.14 mm²
Conductor cross section flexible, with ferrule with plastic sleeve max.	2.5 mm²
2 conductors with same cross section, stranded, TWIN ferrules with plastic sleeve, max.	0.5 mm²
Connection in acc. with standard	IEC/EN 60079-7
Conductor cross section solid min.	0.08 mm²
Conductor cross section solid max.	4 mm²
Conductor cross section AWG min.	28
Conductor cross section AWG max.	12
Conductor cross section flexible min.	0.08 mm²
Conductor cross section flexible max.	2.5 mm²
Stripping length	8 mm 10 mm
Internal cylindrical gage	A3

## Classifications

## eCl@ss

eCl@ss 4.0	27141121
eCl@ss 4.1	27141121
eCl@ss 5.0	27141125
eCl@ss 5.1	27141125
eCl@ss 6.0	27141125
eCl@ss 7.0	27141125
eCI@ss 8.0	27141120

## **ETIM**

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

### **UNSPSC**

UNSPSC 6.01	30211811



## Classifications

### **UNSPSC**

UNSPSC 7.0901	39121410
UNSPSC 11	39121410
UNSPSC 12.01	39121410
UNSPSC 13.2	39121410

## Approvals

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#### Approvals

UL Recognized / VDE Gutachten mit Fertigungsüberwachung / cUL Recognized / LR / GL / BV / DNV / RS / ABS / KR / NK / IECEE CB Scheme / CSA / EAC / EAC / cULus Recognized

Ex Approvals

IECEx / ATEX / EAC Ex

Approvals submitted

### Approval details

UL Recognized <b>S</b>		
	В	С
mm²/AWG/kcmil	28-12	28-12
Nominal current IN	20 A	20 A
Nominal voltage UN	600 V	600 V

VDE Gutachten mit Fertigungsüberwachung		
mm²/AWG/kcmil	0.2-2.5	
Nominal current IN	24 A	
Nominal voltage UN	800 V	



## Approvals

cUL Recognized				
	В		С	
mm²/AWG/kcmil	28-12		28-12	
Nominal current IN	20 A		20 A	
Nominal voltage UN	600 V		600 V	
LR				
GL				
mm²/AWG/kcmil		2.5		
Nominal current IN		24 A	24 A	
Nominal voltage UN		800 V	800 V	
BV				
DNV				
DINV				
RS				
ABS				
mm²/AWG/kcmil		26-12		
Nominal current IN		20 A		
Nominal voltage UN		600 V	600 V	
KR				
NK				
IECEE CB Scheme CB				
mm²/AWG/kcmil		2.5		
Nominal voltage UN		800 V	800 V	



## Approvals

CSA 1		
	В	С
mm²/AWG/kcmil	28-12	28-12
Nominal current IN	20 A	20 A
Nominal voltage UN	600 V	600 V

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#### Accessories

Accessories

Documentation

Mounting material - ST-IL - 3039900

Operating decal for the ST terminal block



## 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



### Accessories

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, for assembly on NS 32 or NS 35/7.5 DIN rail

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

End cover - D-ST 2,5-QUATTRO - 3030514



End cover, Length: 72 mm, Width: 2.2 mm, Height: 36.5 mm, Color: gray



### Accessories

Cover segment - DS-ST 2,5 - 3036602



End cover segments, large segment: 32.25 x 13.83 x 0.9, small segment: 22.65 x 11.65 x 0.9, color: gray

End cover - D-ST 2,5-QUATTRO-0,8 OG - 3030513



End cover, Length: 72 mm, Width: 0.8 mm, Height: 29 mm, Color: orange

#### Insulating sleeve

Insulating sleeve - MPS-IH WH - 0201663



Insulating sleeve, Color: white

Insulating sleeve - MPS-IH RD - 0201676



Insulating sleeve, Color: red

Insulating sleeve - MPS-IH BU - 0201689



Insulating sleeve, Color: blue



### Accessories

Insulating sleeve - MPS-IH YE - 0201692



Insulating sleeve, Color: yellow

Insulating sleeve - MPS-IH GN - 0201702



Insulating sleeve, Color: green

Insulating sleeve - MPS-IH GY - 0201728



Insulating sleeve, Color: gray

Insulating sleeve - MPS-IH BK - 0201731



Insulating sleeve, Color: black

Insulating sleeve - ISH 2,5/0,2 - 3002843



Insulating sleeve, Color: white



### Accessories

Insulating sleeve - ISH 2,5/0,5 - 3002856



Insulating sleeve, Color: gray

Insulating sleeve - ISH 2,5/1,0 - 3002869



Insulating sleeve, Color: black

#### Jumper

Plug-in bridge - FBS 20-5 - 3030226



Plug-in bridge, Number of positions: 20, Color: red

Plug-in bridge - FBS 10-5 - 3030213



Plug-in bridge, Length: 22.7 mm, Width: 50.6 mm, Number of positions: 10, Color: red

Plug-in bridge - FBS 5-5 - 3030190



Plug-in bridge, Length: 22.7 mm, Width: 24.6 mm, Number of positions: 5, Color: red



### Accessories

Plug-in bridge - FBS 4-5 - 3030187



Plug-in bridge, Length: 22.7 mm, Width: 19.4 mm, Number of positions: 4, Color: red

Plug-in bridge - FBS 3-5 - 3030174



Plug-in bridge, Length: 22.7 mm, Width: 14.2 mm, Number of positions: 3, Color: red

Plug-in bridge - FBS 2-5 - 3030161



Plug-in bridge, Length: 22.7 mm, Width: 9 mm, Number of positions: 2, Color: red

Plug-in bridge - FBS 50-5 - 3038930



Plug-in bridge, Number of positions: 50, Color: red

Plug-in bridge - FBSR 2-5 - 3033702



Plug-in bridge, Number of positions: 2, Color: red



### Accessories

Plug-in bridge - FBSR 3-5 - 3001591



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

Plug-in bridge - FBSR 4-5 - 3001592



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

Plug-in bridge - FBSR 5-5 - 3001593



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

Plug-in bridge - FBSR 10-5 - 3033710



Plug-in bridge, Number of positions: 10, Color: red

#### Labeled terminal marker

Warning cover - WST 2,5 - 3030941



Warning cover, 5-pos., for terminal width: 5.2 mm



#### Accessories

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: 5.15 x 10.5 mm

#### 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: 5.15 x 10.5 mm

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



Zack marker strip, Strip, white, labeled, can be labeled with: Plotter, 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: 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: 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: 5.15 x 10.5 mm

#### Marker for terminal blocks - ZB 5,LGS:L1-N,PE - 1050415



Marker for terminal blocks, 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: 5.15 x 10.5 mm



#### Accessories

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:  $10.5 \times 4.6 \text{ mm}$ 

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, Lettering field: 4.6 x 10.5 mm

Zack Marker strip, flat - ZBF 5 CUS - 0825025



Zack Marker strip, flat, can be ordered: Strip, white, labeled according to customer specifications, Mounting type: Snap into flat marker groove, for terminal block width: 5 mm, Lettering field: 5.15 x 5.15 mm

Zack Marker strip, flat - ZBF 5,LGS:FORTL.ZAHLEN - 0808671



Zack Marker strip, flat, Strip, white, labeled, Printed horizontally: Consecutive numbers 1 - 10, 11 - 20, etc. up to 491 - 500, Mounting type: Snap into flat marker groove, for terminal block width: 5 mm, Lettering field: 5.15 x 5.15 mm

Zack Marker strip, flat - ZBF 5,QR:FORTL.ZAHLEN - 0808697



Zack Marker strip, flat, Strip, white, labeled, Printed vertically: Consecutive numbers 1 - 10, 11 - 20, etc. up to 91 - 100, Mounting type: Snap into flat marker groove, for terminal block width: 5 mm, Lettering field: 5.15 x 5.15 mm



#### Accessories

Zack Marker strip, flat - ZBF 5,LGS:GERADE ZAHLEN - 0810821



Zack Marker strip, flat, Strip, white, labeled, Printed horizontally: Consecutive numbers 2 - 20, 22 - 40, etc. up to 82 - 100, Mounting type: Snap into flat marker groove, for terminal block width: 5 mm, Lettering field: 5.15 x 5.15 mm

Zack Marker strip, flat - ZBF 5,LGS:UNGERADE ZAHLEN - 0810863



Zack Marker strip, flat, Strip, white, labeled, Printed horizontally: Odd numbers 1 - 19, 21 - 39, etc. up to 81 - 99, Mounting type: Snap into flat marker groove, for terminal block width: 5 mm, Lettering field: 5.15 x 5.15 mm

Marker for terminal blocks - UC-TMF 5 CUS - 0824638



Marker for terminal blocks, can be ordered: by sheet, white, labeled according to customer specifications, Mounting type: Snap into flat marker groove, for terminal block width: 5.2 mm, Lettering field: 4.6 x 5.1 mm

Marker for terminal blocks - UCT-TMF 5 CUS - 0829658



Marker for terminal blocks, can be ordered: by sheet, white, labeled according to customer specifications, Mounting type: Snap into flat marker groove, for terminal block width: 5.2 mm, Lettering field: 4.4 x 4.7 mm

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



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

### Partition plate

Partition plate - ATP-ST QUATTRO - 3030815



Partition plate, Length: 90.9 mm, Width: 2 mm, Height: 45 mm, Color: gray

Spacer plate - DP PS-5 - 3036725



Spacer plate, Length: 22.4 mm, Width: 5.2 mm, Height: 29 mm, Number of positions: 1, Color: red

Screwdriver tools



#### Accessories

Screwdriver - SZF 1-0,6X3,5 - 1204517



Actuation tool, for ST terminal blocks, also suitable for use as a bladed screwdriver, size: 0.6 x 3.5 x 100 mm, 2-component grip, with non-slip grip

#### Terminal marking

Zack marker strip - ZB 5 :UNBEDRUCKT - 1050004



Zack marker strip, Strip, white, unlabeled, can be labeled with: Plotter, Mounting type: Snap into tall marker groove, for terminal block width: 5.2 mm, Lettering field: 5.1 x 10.5 mm

Marker for terminal blocks - UC-TM 5 - 0818108



Marker for terminal blocks, Sheet, white, unlabeled, can be labeled with: BLUEMARK CLED, BLUEMARK LED, Mounting type: Snap into tall marker groove, for terminal block width: 5.2 mm, Lettering field: 10.5 x 4.6 mm

Marker for terminal blocks - UCT-TM 5 - 0828734



Marker for terminal blocks, Sheet, white, unlabeled, can be labeled with: THERMOMARK CARD, BLUEMARK CLED, BLUEMARK LED, TOPMARK LASER, Mounting type: Snap into tall marker groove, for terminal block width: 5.2 mm, Lettering field: 4.6 x 10.5 mm

Zack Marker strip, flat - ZBF 5:UNBEDRUCKT - 0808642



Zack Marker strip, flat, Strip, white, unlabeled, can be labeled with: Plotter, Mounting type: Snap into flat marker groove, for terminal block width: 5 mm, Lettering field:  $5.1 \times 5.2 \text{ mm}$ 



### Accessories

Marker for terminal blocks - UCT-TMF 5 - 0828744



Marker for terminal blocks, Sheet, white, unlabeled, can be labeled with: THERMOMARK CARD, BLUEMARK CLED, BLUEMARK LED, TOPMARK LASER, Mounting type: Snap into flat marker groove, for terminal block width: 5.2 mm, Lettering field: 4.4 x 4.7 mm

#### Test plug terminal block

Reducing plug - RPS - 0201647



Reducing plug, Color: gray

Test plugs - MPS-MT - 0201744



Test plugs, Color: silver

Test plugs - PS-5 - 3030983



Test plugs, Color: red

Test plugs - PS-5/2,3MM RD - 3038723



Test plugs, Color: red

Test socket



### Accessories

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

## **Drawings**

Circuit diagram

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