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Feed-through terminal block, connection method: Screw connection, number of connections: 2, cross section:0.2 mm² - 4 mm², AWG: 24 - 12, width: 5.2 mm, color: black, mounting type: NS 35/7,5, NS 35/15, NS 32



### **Key Commercial Data**

Packing unit	1 STK
Minimum order quantity	50 STK
GTIN	4 017918 591519
GTIN	4017918591519
Weight per Piece (excluding packing)	7.800 g
Custom tariff number	85369010
Country of origin	China

#### Technical data

#### General

Number of levels	1
Number of connections	2
Potentials	1
Nominal cross section	2.5 mm <sup>2</sup>
Color	black
Insulating material	PA
Flammability rating according to UL 94	V0
Rated surge voltage	8 kV
Degree of pollution	3



### Technical data

#### General

Overvoltage category	III
Insulating material group	1
Maximum power dissipation for nominal condition	0.77 W
Maximum load current	32 A (with 4 mm² conductor cross section)
Nominal current I <sub>N</sub>	24 A
Nominal voltage U <sub>N</sub>	800 V
Open side panel	Yes
Shock protection test specification	IEC 60529:2001-02
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 kV
Result of the test for 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 mm² / 0.2 kg
	2.5 mm² / 0.7 kg
	4 mm² / 0.9 kg
Tensile test result	Test passed
Conductor cross section tensile test	0.2 mm <sup>2</sup>
Tractive force setpoint	10 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
Result of tight fit on support	Test passed
Tight fit on carrier	NS 32/NS 35
Setpoint	1 N
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	2.5 mm <sup>2</sup>
	•



### Technical data

#### General

Short-time current	0.3 kA
Conductor cross section short circuit testing	4 mm²
Short-time current	0.48 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):2008-03
Test spectrum	Service life test category 2, bogie-mounted
Test frequency	$f_1 = 5 \text{ Hz to } f_2 = 250 \text{ Hz}$
ASD level	6.12 (m/s²)²/Hz
Acceleration	3.12 g
Test duration per axis	5 h
Test directions	X-, Y- and Z-axis
Shock test result	Test passed
Test specification, shock test	DIN EN 50155 (VDE 0115-200):2008-03
Shock form	Half-sine
Acceleration	30g
Shock duration	18 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
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** 



### Technical data

#### Dimensions

Width	5.2 mm
Length	42.5 mm
Height NS 35/7,5	47 mm
Height NS 35/15	54.5 mm
Height NS 32	52 mm

#### Connection data

Connection method	Screw connection
Connection in acc. with standard	IEC 60947-7-1
Conductor cross section solid min.	0.2 mm²
Conductor cross section solid max.	4 mm²
Conductor cross section AWG min.	24
Conductor cross section AWG max.	12
Conductor cross section flexible min.	0.2 mm²
Conductor cross section flexible max.	2.5 mm²
Min. AWG conductor cross section, flexible	24
Max. AWG conductor cross section, flexible	14
Conductor cross section flexible, with ferrule without plastic sleeve min.	0.25 mm²
Conductor cross section flexible, with ferrule without plastic sleeve max.	2.5 mm²
Conductor cross section flexible, with ferrule with plastic sleeve min.	0.25 mm²
Conductor cross section flexible, with ferrule with plastic sleeve max.	1.5 mm²
Cross section with insertion bridge, solid max.	4 mm²
Cross section with insertion bridge, stranded max.	2.5 mm²
2 conductors with same cross section, solid min.	0.2 mm²
2 conductors with same cross section, solid max.	1.5 mm²
2 conductors with same cross section, stranded min.	0.2 mm²
2 conductors with same cross section, stranded 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.	1 mm²
2 conductors with same cross section, stranded, ferrules without plastic sleeve, min.	0.25 mm²
2 conductors with same cross section, stranded, ferrules without plastic sleeve, max.	1.5 mm²
Cross section with insertion bridge, solid max.	4 mm²
Cross section with insertion bridge, stranded max.	2.5 mm²
Connection in acc. with standard	IEC/EN 60079-7
Conductor cross section solid min.	0.2 mm²



### Technical data

#### Connection data

Conductor cross section solid max.	4 mm²
Conductor cross section AWG min.	28
Conductor cross section AWG max.	12
Conductor cross section flexible min.	0.2 mm²
Conductor cross section flexible max.	2.5 mm <sup>2</sup>
Stripping length	8 mm
Screw thread	M3
Tightening torque, min	0.6 Nm
Tightening torque max	0.8 Nm

#### Standards and Regulations

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

### **Environmental Product Compliance**

China RoHS	Environmentally Friendly Use Period = 50
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

### 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
eCl@ss 8.0	27141120
eCl@ss 9.0	27141120

#### **ETIM**

ETIM 2.0	EC000897
ETIM 3.0	EC000897
ETIM 4.0	EC000897
ETIM 5.0	EC000897
ETIM 6.0	EC000897



### Classifications

#### **UNSPSC**

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

### Approvals

#### Approvals

Approvals

UL Recognized / cUL Recognized / EAC / DNV GL / cULus Recognized

Ex Approvals

IECEx / ATEX / UL Recognized / cUL Recognized / EAC Ex / GL / cULus Recognized

#### Approval details

UL Recognized	<i>9</i> 1	http://database.ul.co	FILE E 60425	
			С	
mm²/AWG/kcmil			28-12	
Nominal current IN			20 A	
Nominal voltage UN			600 V	

cUL Recognized	<b>.71</b>	http://database.ul.co	FILE E 60425	
mm²/AWG/kcmil			28-12	
Nominal current IN			20 A	
Nominal voltage UN			600 V	



#### Approvals

EAC [A[

EAC-Zulassung

DNV GL http://exchange.dnv.com/tari/ TAE00001CT

cULus Recognized



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

#### Accessories

#### Accessories

Bridge

Fixed bridge - FB-150 METER - 0201595



Cross connection rail, for fixed bridging of identical inputs and outputs, made of Cu, nickel-plated, 1 m long

#### Cover profile

Cover profile - EA 5-WS - 1024085



Single covers, for covering one terminal block, with black symbol (lightning flash) snap fit, color: transparent/yellow

Cover profile - EA 5 - 1024014



Single covers, color: transparent

DIN rail



#### Accessories

DIN rail perforated - NS 32 PERF 2000MM - 1201002



G-profile DIN rail, material: Steel, perforated, height 15 mm, width 32 mm, length 2 m

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



G-profile DIN rail, material: Steel, unperforated, height 15 mm, width 32 mm, length 2 m

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

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)



#### Accessories

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

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





#### Accessories

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

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



#### Accessories

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

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, unperforated, Width: 35 mm, Height: 15 mm, Length: 2000 mm, Color: silver

End block



#### 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, Width: 9.5 mm, Height: 35.3 mm, Length: 50.5 mm, 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



#### Accessories

End cover - D-UK 4/10 - 3003020



End cover, length: 42.5 mm, width: 1.8 mm, height: 35.9 mm, color: gray

End cover - D-UK 4/10 BU - 3003101



End cover, length: 42.5 mm, width: 1.8 mm, height: 47 mm, color: blue

#### Insertion bridge

Insertion bridge - EBL 3- 5 - 2303158



Insertion bridge, pitch: 5 mm, number of positions: 3, color: gray

Insertion bridge - EBL 2-5 - 2303145



Insertion bridge, pitch: 5 mm, number of positions: 2, color: gray

Insertion bridge - EBL 10- 5 - 2303132



Insertion bridge, pitch: 5 mm, number of positions: 10, color: gray



#### Accessories

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

Insulating sleeve - MPS-IH YE - 0201692



Insulating sleeve, color: yellow

Insulating sleeve - MPS-IH GN - 0201702



Insulating sleeve, color: green



#### Accessories

Insulating sleeve - MPS-IH GY - 0201728



Insulating sleeve, color: gray

Insulating sleeve - MPS-IH BK - 0201731



Insulating sleeve, color: black

#### 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: 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: CMS-P1-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



#### Accessories

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: 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

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 x 4.6 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

#### Mounting material

Screw - ZSR - 2303608



Screw



#### Accessories

Partition plate

Separating plate - TS-K - 1302215



Separating plate, length: 22 mm, width: 0.5 mm, height: 22 mm, color: gray

Partition plate - ATP-UK - 3003224



Partition plate, length: 56 mm, width: 1.5 mm, height: 45.7 mm, color: gray

#### Screw bridge

Fixed bridge - FBR 80-5-EX - 3000942



Fixed bridge, pitch: 5 mm, number of positions: 80, color: silver

Fixed bridge - FBRI 20-5 N - 3000515



Fixed bridge, pitch: 5 mm, number of positions: 20, color: silver

Fixed bridge - FBRI 16-5 N - 3000476



Fixed bridge, number of positions: 16, color: silver



#### Accessories

Fixed bridge - FBRI 12-5 N - 3000434



Fixed bridge, number of positions: 12, color: silver

Fixed bridge - FBRI 2-5 N - 3000227



Fixed bridge, pitch: 5 mm, number of positions: 2, color: silver

Fixed bridge - FBRI 10-5 N - 2770642



Fixed bridge, pitch: 5.2 mm, number of positions: 10, color: silver

Fixed bridge - FBR 10-5-EX - 2303226



Fixed bridge, pitch: 5 mm, number of positions: 10, color: silver

Fixed bridge - FBRI 40-5 N - 3006823



Fixed bridge, number of positions: 40, color: silver

Short-circuit connector



#### Accessories

Short-circuit connector - KSS 5 - 2303543



Short-circuit connector, pitch: 5 mm, number of positions: 2, color: black

#### Switching jumper

Switching jumper - USBR 2-7 - 2303239



Switching jumper, pitch: 7 mm, number of positions: 2, color: silver

#### Switching jumper - USBRJ 2-7 - 2305538



Switching jumper, number of positions: 2, color: silver

#### Terminal marking

Marker card - SBS 5:UNBEDRUCKT - 1007219



Marker card, Card, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, perforated, Mounting type: Snap into tall marker groove, Snap into flat marker groove, for terminal block width: 5.2 mm, Lettering field: 6 x 5.1 mm

#### Zack marker strip - ZB 5 :UNBEDRUCKT - 1050004



Zack marker strip, Strip, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, PLOTMARK, Mounting type: Snap into tall marker groove, for terminal block width: 5.2 mm, Lettering field: 5.1 x 10.5 mm



#### Accessories

Marker for terminal blocks - UC-TM 5 - 0818108



Marker for terminal blocks, Sheet, white, unlabeled, can be labeled with: BLUEMARK CLED, BLUEMARK LED, CMS-P1-PLOTTER, PLOTMARK, 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 PRIME, 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

#### Test plug terminal block

Test plugs - PS-UK 2,5 B/Z-5 - 3001226



Test plugs, color: red

Test plugs - PS-UK 2,5 B/E - 3001132



Test plugs, color: red

Reducing plug - RPS - 0201647



Reducing plug, color: gray



#### Accessories

Test plugs - MPS-MT - 0201744



Test plugs, with solder connection up to 1 mm² conductor cross section, color: silver

#### Test socket

Female test connector - PSBJ 3/13/4 - 0201304



Female test connector, color: silver

Female test connector - PSB 3/10/4 - 0601292



Female test connector, color: silver

### Warning label printed

Warning label - WS 3- 5 - 0805357



Warning plate, with 2 plastic screws, across 3 terminal blocks, pitch 5 mm

Warning label - WS 4- 5 - 0805344



Warning plate, with 2 plastic screws, across 4 terminal blocks, pitch 5 mm



#### Accessories

Warning label - WS 5- 5 - 0805331

Warning plate, with 2 plastic screws, across 5 terminal blocks, pitch 5 mm



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