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## Feed-through terminal block - ST 2,5 - 3031212

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Feed-through terminal block, Connection method: Spring-cage connection, Cross section: 0.08 mm<sup>2</sup> - 4 mm<sup>2</sup>, AWG: 28 - 12, Width: 5.2 mm, Color: gray, Mounting type: NS 35/7,5, NS 35/15

### Why buy this product

- The consistent double function shaft offers every opportunity for time-saving potential distribution and accommodating test accessories
- As well as saving space, the compact design and front connection enable user-friendly wiring in a small amount of space
- The large wiring space enables the use of conductors with ferrules and plastic collars within the nominal cross section
- Tested for railway applications



### Key Commercial Data

Packing unit	50 STK
GTIN	 4 017918 186722

### Technical data

#### General

Number of levels	1
Number of connections	2
Nominal cross section	2.5 mm <sup>2</sup>
Color	gray
Insulating material	PA
Flammability rating according to UL 94	V0
Area of application	Railway industry
	Mechanical engineering
	Plant engineering
	Process industry
Rated surge voltage	8 kV
Degree of pollution	3
Overvoltage category	III

# Feed-through terminal block - ST 2,5 - 3031212

## Technical data

### General

Insulating material group	I
Connection in acc. with standard	IEC 60947-7-1
Maximum load current	31 A (with 4 mm <sup>2</sup> conductor cross section)
Nominal current I <sub>N</sub>	24 A (at 2.5 mm <sup>2</sup> )
Nominal voltage U <sub>N</sub>	800 V
Open side panel	Yes
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 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	0.08 mm <sup>2</sup> / 0.1 kg
	2.5 mm <sup>2</sup> / 0.7 kg
	4 mm <sup>2</sup> / 0.9 kg
Tensile test result	Test passed
Conductor cross section tensile test	0.08 mm <sup>2</sup>
Tractive force setpoint	5 N
Conductor cross section tensile test	2.5 mm <sup>2</sup>
Tractive force setpoint	50 N
Conductor cross section tensile test	4 mm <sup>2</sup>
Tractive force setpoint	60 N
Result of tight fit on support	Test passed
Tight fit on carrier	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>
Short-time current	0.3 kA
Conductor cross section short circuit testing	4 mm <sup>2</sup>
Short-time current	0.48 kA
Result of aging test	Test passed
Ageing test for screwless modular terminal block temperature cycles	192

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## Technical data

### General

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	$0.964 \text{ (m/s}^2\text{)}^2\text{/Hz}$
Acceleration	4.25 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

### Dimensions

Width	5.2 mm
End cover width	2.2 mm
Length	48.5 mm
Height NS 35/7,5	36.5 mm
Height NS 35/15	44 mm

### Connection data

Connection method	Spring-cage connection
Connection in acc. with standard	IEC 60947-7-1
Conductor cross section solid min.	0.08 mm <sup>2</sup>
Conductor cross section solid max.	4 mm <sup>2</sup>
Conductor cross section AWG min.	28
Conductor cross section AWG max.	12
Conductor cross section flexible min.	0.08 mm <sup>2</sup>
Conductor cross section flexible max.	2.5 mm <sup>2</sup>
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 mm <sup>2</sup>
Conductor cross section flexible, with ferrule without plastic sleeve max.	2.5 mm <sup>2</sup>

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## Technical data

### Connection data

Conductor cross section flexible, with ferrule with plastic sleeve min.	0.14 mm <sup>2</sup>
Conductor cross section flexible, with ferrule with plastic sleeve max.	2.5 mm <sup>2</sup>
2 conductors with same cross section, stranded, TWIN ferrules with plastic sleeve, max.	0.5 mm <sup>2</sup>
Connection in acc. with standard	IEC/EN 60079-7
Conductor cross section solid min.	0.08 mm <sup>2</sup>
Conductor cross section solid max.	4 mm <sup>2</sup>
Conductor cross section AWG min.	28
Conductor cross section AWG max.	12
Conductor cross section flexible min.	0.08 mm <sup>2</sup>
Conductor cross section flexible max.	2.5 mm <sup>2</sup>
Stripping length	8 mm ... 10 mm
Internal cylindrical gage	A3

### Standards and Regulations

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

## Classifications

### eCl@ss

eCl@ss 4.0	27141121
eCl@ss 4.1	27141121
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

### UNSPSC

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

# Feed-through terminal block - ST 2,5 - 3031212

## Classifications

### UNSPSC

UNSPSC 13.2	39121410
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## Approvals

### Approvals

#### Approvals

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

#### Ex Approvals

IECEX / ATEX / EAC Ex

#### Approvals submitted

## Approval details

UL Recognized		
	B	C
mm <sup>2</sup> /AWG/kcmil	28-12	28-12
Nominal current I <sub>N</sub>	20 A	20 A
Nominal voltage U <sub>N</sub>	600 V	600 V

VDE Gutachten mit Fertigungsüberwachung	
mm <sup>2</sup> /AWG/kcmil	0.2-2.5
Nominal current I <sub>N</sub>	24 A
Nominal voltage U <sub>N</sub>	800 V

cUL Recognized		
	B	C
mm <sup>2</sup> /AWG/kcmil	28-12	28-12
Nominal current I <sub>N</sub>	20 A	20 A
Nominal voltage U <sub>N</sub>	600 V	600 V

# Feed-through terminal block - ST 2,5 - 3031212

## Approvals

LR

GL


BV

RS


ABS

KR

NK

IECEE CB Scheme 

mm <sup>2</sup> /AWG/kcmil	2.5
Nominal voltage UN	800 V

CSA 

	B	C
mm <sup>2</sup> /AWG/kcmil	28-12	28-12
Nominal current IN	20 A	20 A
Nominal voltage UN	600 V	600 V

EAC

EAC

cULus Recognized 

## Drawings

## Feed-through terminal block - ST 2,5 - 3031212

Circuit diagram



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