

## Knife disconnect terminal block - PT 1,5/S-MT - 3210301

Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (<http://phoenixcontact.com/download>)



Knife disconnect terminal block, nom. voltage: 400 V, nominal current: 10 A, connection method: Push-in connection, cross section: 0.14 mm<sup>2</sup> - 1.5 mm<sup>2</sup>, AWG: 26 - 14, length: 58.9 mm, width: 3.5 mm, color: gray, mounting: NS 35/7,5, NS 35/15, nom. voltage: 400 V

### Why buy this product

- ✓ The Push-in connection terminal blocks are characterized by the system features of the CLIPLINE complete system and by easy and tool-free wiring of conductors with ferrules or solid conductors
- ✓ The compact design and front connection enable wiring in a confined space
- ✓ In addition to the testing facility in the double function shaft, all terminal blocks provide an additional test connection
- ✓ Convenient separation of circuits, thanks to lever-type disconnect knife

RoHS

### Key Commercial Data

|              |                                                                                                         |
|--------------|---------------------------------------------------------------------------------------------------------|
| Packing unit | 50 STK                                                                                                  |
| GTIN         | <br>4 046356 861205 |
| GTIN         | 4046356861205                                                                                           |

### Technical data

#### General

|                                                 |                     |
|-------------------------------------------------|---------------------|
| Number of levels                                | 1                   |
| Number of connections                           | 2                   |
| Potentials                                      | 1                   |
| Nominal cross section                           | 1.5 mm <sup>2</sup> |
| Color                                           | gray                |
| Insulating material                             | PA                  |
| Flammability rating according to UL 94          | V0                  |
| Degree of pollution                             | 3                   |
| Overvoltage category                            | III                 |
| Insulating material group                       | I                   |
| Maximum power dissipation for nominal condition | 0.56 W              |
| Maximum load current                            | 10 A                |

# Knife disconnect terminal block - PT 1,5/S-MT - 3210301

## Technical data

### General

|                                                                                           |                                                |
|-------------------------------------------------------------------------------------------|------------------------------------------------|
| Nominal current $I_N$                                                                     | 10 A                                           |
| Nominal voltage $U_N$                                                                     | 400 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                                                               | 7.3 kV                                         |
| 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 bending test                                                                    | Test passed                                    |
| Bending test rotation speed                                                               | 10 rpm                                         |
| Bending test turns                                                                        | 135                                            |
| Bending test conductor cross section/weight                                               | 0.14 mm <sup>2</sup> / 0.2 kg                  |
|                                                                                           | 1.5 mm <sup>2</sup> / 0.4 kg                   |
| Tensile test result                                                                       | Test passed                                    |
| Conductor cross section tensile test                                                      | 0.14 mm <sup>2</sup>                           |
| Tractive force setpoint                                                                   | 10 N                                           |
| Conductor cross section tensile test                                                      | 1.5 mm <sup>2</sup>                            |
| Tractive force setpoint                                                                   | 40 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                                                                | ≤ 6,4 mV                                       |
| Result of temperature-rise test                                                           | Test passed                                    |
| Short circuit stability result                                                            | Test passed                                    |
| Conductor cross section short circuit testing                                             | 1.5 mm <sup>2</sup>                            |
| Short-time current                                                                        | 0.18 kA                                        |
| Result of thermal test                                                                    | Test passed                                    |
| Ageing test for screwless modular terminal block temperature cycles                       | 192                                            |
| Proof of thermal characteristics (needle flame) effective duration                        | 30 s                                           |
| Result of aging test                                                                      | Test passed                                    |
| 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/s <sup>2</sup> )/Hz                    |
| Acceleration                                                                              | 3.12 g                                         |

# Knife disconnect terminal block - PT 1,5/S-MT - 3210301

## Technical data

### General

|                                                                         |                                     |
|-------------------------------------------------------------------------|-------------------------------------|
| 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

|                  |         |
|------------------|---------|
| Width            | 3.5 mm  |
| End cover width  | 0.8 mm  |
| Length           | 58.9 mm |
| Height           | 30.5 mm |
| Height NS 35/7,5 | 32 mm   |
| Height NS 35/15  | 39.5 mm |

### Connection data

|                                    |                      |
|------------------------------------|----------------------|
| Connection method                  | Push-in connection   |
| Connection in acc. with standard   | IEC 60947-7-1        |
| Conductor cross section solid min. | 0.14 mm <sup>2</sup> |
| Conductor cross section solid max. | 1.5 mm <sup>2</sup>  |
| Conductor cross section AWG min.   | 26                   |
| Conductor cross section AWG max.   | 14                   |

# Knife disconnect terminal block - PT 1,5/S-MT - 3210301

## Technical data

### Connection data

|                                                                            |                                                                                    |
|----------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| Conductor cross section flexible min.                                      | 0.14 mm <sup>2</sup>                                                               |
| Conductor cross section flexible max.                                      | 1.5 mm <sup>2</sup>                                                                |
| Min. AWG conductor cross section, flexible                                 | 26                                                                                 |
| 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. | 1.5 mm <sup>2</sup>                                                                |
| 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.    | 1 mm <sup>2</sup> Using the Al-S 1-8 TQ ferrule, Order No. 1200293, is recommended |
| Stripping length                                                           | 8 mm ... 10 mm                                                                     |
| Internal cylindrical gage                                                  | A1 / B1                                                                            |

### Standards and Regulations

|                                                        |                                                 |
|--------------------------------------------------------|-------------------------------------------------|
| Connection in acc. with standard                       | IEC 60947-7-1                                   |
| Flammability rating according to UL 94                 | V0                                              |
| Fire protection for rail vehicles (DIN EN 45545-2) R22 | HL 1 - HL 3 HL 1 - HL 3 HL 1 - HL 3 HL 1 - HL 3 |
| Fire protection for rail vehicles (DIN EN 45545-2) R23 | HL 1 - HL 3 HL 1 - HL 3 HL 1 - HL 3 HL 1 - HL 3 |
| Fire protection for rail vehicles (DIN EN 45545-2) R24 | HL 1 - HL 3 HL 1 - HL 3 HL 1 - HL 3 HL 1 - HL 3 |
| Fire protection for rail vehicles (DIN EN 45545-2) R26 | HL 1 - HL 3 HL 1 - HL 3 HL 1 - HL 3 HL 1 - HL 3 |

### Environmental Product Compliance

|            |                                                         |
|------------|---------------------------------------------------------|
| China RoHS | Environmentally friendly use period: unlimited = EFUP-e |
|            | No hazardous substances above threshold values          |

## Drawings

### Circuit diagram



## Approvals

### Approvals

#### Approvals

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

#### Ex Approvals

### Approval details

# Knife disconnect terminal block - PT 1,5/S-MT - 3210301

## Approvals

|                    |                                                                                   |                                                                                                                                                       |              |
|--------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| UL Recognized      |  | <a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a> | FILE E 60425 |
|                    | B                                                                                 | C                                                                                                                                                     |              |
| mm²/AWG/kcmil      | 26-16                                                                             | 26-16                                                                                                                                                 |              |
| Nominal current IN | 10 A                                                                              | 10 A                                                                                                                                                  |              |
| Nominal voltage UN | 300 V                                                                             | 300 V                                                                                                                                                 |              |

|                    |                                                                                   |                                                                                                                                                       |              |
|--------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| cUL Recognized     |  | <a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a> | FILE E 60425 |
|                    | B                                                                                 | C                                                                                                                                                     |              |
| mm²/AWG/kcmil      | 26-16                                                                             | 26-16                                                                                                                                                 |              |
| Nominal current IN | 10 A                                                                              | 10 A                                                                                                                                                  |              |
| Nominal voltage UN | 300 V                                                                             | 300 V                                                                                                                                                 |              |

|                    |                                                                                     |                                                                                                                                         |       |
|--------------------|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|-------|
| CSA                |  | <a href="http://www.csagroup.org/services-industries/product-listing/">http://www.csagroup.org/services-industries/product-listing/</a> | 13631 |
|                    | B                                                                                   | C                                                                                                                                       |       |
| mm²/AWG/kcmil      | 26-16                                                                               | 26-16                                                                                                                                   |       |
| Nominal current IN | 10 A                                                                                | 10 A                                                                                                                                    |       |
| Nominal voltage UN | 300 V                                                                               | 300 V                                                                                                                                   |       |

|     |                                                                                     |               |
|-----|-------------------------------------------------------------------------------------|---------------|
| EAC |  | EAC-Zulassung |
|-----|-------------------------------------------------------------------------------------|---------------|

|    |                                                                                     |                                                         |          |
|----|-------------------------------------------------------------------------------------|---------------------------------------------------------|----------|
| LR |  | <a href="http://www.lr.org/en">http://www.lr.org/en</a> | 16/20026 |
|----|-------------------------------------------------------------------------------------|---------------------------------------------------------|----------|

|        |                                                                           |            |
|--------|---------------------------------------------------------------------------|------------|
| DNV GL | <a href="http://exchange.dnv.com/tari/">http://exchange.dnv.com/tari/</a> | 1481515 HH |
|--------|---------------------------------------------------------------------------|------------|

|     |                                                                                     |                          |
|-----|-------------------------------------------------------------------------------------|--------------------------|
| EAC |  | RU C-<br>DE.A*30.B.01742 |
|-----|-------------------------------------------------------------------------------------|--------------------------|

|                  |                                                                                     |                                                                                                                                                       |
|------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| cULus Recognized |  | <a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a> |
|------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|

Phoenix Contact 2018 © - all rights reserved  
<http://www.phoenixcontact.com>

PHOENIX CONTACT GmbH & Co. KG  
Flachsmarktstr. 8  
32825 Blomberg  
Germany  
Tel. +49 5235 300  
Fax +49 5235 3 41200  
<http://www.phoenixcontact.com>