

## Feed-through terminal block - QTCU 2,5 - 3206539

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Feed-through terminal block, Connection type: Quick connection, Screw connection, Cross section: 0.5 mm<sup>2</sup> - 2.5 mm<sup>2</sup>, AWG :20- 14, Width: 6.2 mm, Color: gray, Mounting: NS 35/7,5, NS 35/15

### Why buy this product

- The time-saving QUICKON fast connection is used on the control cabinet side
- The hybrid versions combine the advantages of the different connection technologies
- The screw connection is used on the connection side



### Key Commercial Data

|              |   |
|--------------|---|
| Packing unit | 50 STK  |
| GTIN         | <br>4 046356 057714 |

### 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  |
| Rated surge voltage                    | 8 kV  |
| Degree of pollution                    | 3   |
| Overvoltage category                   | III   |
| Insulating material group              | I   |
| Ambient temperature (actuation)        | -10 °C ... 90 °C  |
| Connection method                      | Quick connection  |
| Connection in acc. with standard       | IEC 60947-7-1   |
| Maximum load current                   | 24 A (with a 2.5 mm <sup>2</sup> conductor cross section) |

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### Technical data

#### General

|   |  |
|---|--|
| Nominal current $I_N$   | 24 A   |
| Nominal voltage $U_N$   | 800 V  |
| Connection method   | Screw connection   |
| Connection in acc. with standard  | IEC 60947-7-1  |
| Maximum load current  | 24 A (with 2.5 mm <sup>2</sup> conductor connection cross section) |
| Nominal current $I_N$   | 24 A   |
| Nominal voltage $U_N$   | 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   | 0.5 mm <sup>2</sup> / 0.3 kg                                       |
|   | 2.5 mm <sup>2</sup> / 0.7 kg                                       |
|   | 0.14 mm <sup>2</sup> / 0.2 kg                                      |
|   | 4 mm <sup>2</sup> / 0.9 kg   |
|   | 6 mm <sup>2</sup> / 1.4 kg   |
| Tensile test result   | Test passed  |
| 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  |
| 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 1, class B, body mounted                |
| Test frequency  | $f_1 = 5 \text{ Hz}$ to $f_2 = 150 \text{ Hz}$                     |
| ASD level   | 0.02 g <sup>2</sup> /Hz  |
| Acceleration  | 0.8g   |

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## 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  | 5 g                                 |
| Shock duration  | 30 ms                               |
| Number of shocks per direction  | 3                                   |
| Relative insulation material temperature index (Elec., UL 746 B)        | 130 °C                              |
| Temperature index of insulation material (DIN EN 60216-1 (VDE 0304-21)) | 120 °C                              |

### Dimensions

|                  |         |
|------------------|---------|
| Width            | 6.2 mm  |
| Length           | 62.6 mm |
| Height NS 35/7,5 | 42.8 mm |
| Height NS 35/15  | 50.3 mm |
| End cover width  | 2.2 mm  |

### Connection data

|  |   |
|--|---|
| Connection method                          | Quick connection  |
| Connection in acc. with standard           | IEC 60947-7-1   |
| Max. wire diameter incl. insulation        | 3.8 mm  |
| Conductor cross section solid min.         | 0.5 mm <sup>2</sup>                                       |
| Conductor cross section solid max.         | 2.5 mm <sup>2</sup>                                       |
| Conductor cross section AWG min.           | 20  |
| Conductor cross section AWG max.           | 14  |
| Conductor cross section flexible min.      | 0.5 mm <sup>2</sup>                                       |
| Conductor cross section flexible max.      | 2.5 mm <sup>2</sup>                                       |
| Min. AWG conductor cross section, flexible | 20  |
| Max. AWG conductor cross section, flexible | 14  |
| Nominal current I <sub>N</sub>             | 24 A  |
| Maximum load current                       | 24 A (with a 2.5 mm <sup>2</sup> conductor cross section) |
| Nominal voltage U <sub>N</sub>             | 800 V   |
| Connection in acc. with standard           | IEC/EN 60079-7  |
| Test certificate name                      | KEMA 05ATEX2148 U   |
| Conductor cross section AWG min.           | 20  |
| Conductor cross section AWG max.           | 14  |
| Maximum load current                       | 22 A (with a 2.5 mm <sup>2</sup> conductor cross section) |
| Nominal voltage U <sub>N</sub>             | 550 V   |
| Material wire insulation                   | PVC / PE  |
| Connection method                          | Screw connection  |

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## Technical data

### Connection data

|   |  |
|---|--|
| Connection in acc. with standard  | IEC 60947-7-1  |
| Screw thread  | M3   |
| Tightening torque, min  | 0.6 Nm   |
| Tightening torque max   | 0.8 Nm   |
| Stripping length  | 9 mm   |
| Conductor cross section solid min.  | 0.14 mm <sup>2</sup>   |
| Conductor cross section solid max.  | 6 mm <sup>2</sup>  |
| Conductor cross section AWG min.  | 26   |
| Conductor cross section AWG max.  | 10   |
| Conductor cross section flexible min.   | 0.14 mm <sup>2</sup>   |
| Conductor cross section flexible max.   | 4 mm <sup>2</sup>  |
| 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.              | 4 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.                 | 4 mm <sup>2</sup>  |
| 2 conductors with same cross section, solid min.  | 0.14 mm <sup>2</sup>   |
| 2 conductors with same cross section, solid max.  | 1.5 mm <sup>2</sup>  |
| 2 conductors with same cross section, stranded min.                                     | 0.14 mm <sup>2</sup>   |
| 2 conductors with same cross section, stranded max.                                     | 1.5 mm <sup>2</sup>  |
| 2 conductors with same cross section, stranded, ferrules without plastic sleeve, min.   | 0.14 mm <sup>2</sup>   |
| 2 conductors with same cross section, stranded, ferrules without plastic sleeve, max.   | 1.5 mm <sup>2</sup>  |
| 2 conductors with same cross section, stranded, TWIN ferrules with plastic sleeve, min. | 0.5 mm <sup>2</sup>  |
| 2 conductors with same cross section, stranded, TWIN ferrules with plastic sleeve, max. | 2.5 mm <sup>2</sup>  |
| Nominal current I <sub>N</sub>  | 24 A   |
| Maximum load current  | 24 A (with 2.5 mm <sup>2</sup> conductor connection cross section) |
| Nominal voltage U <sub>N</sub>  | 800 V  |

### Standards and Regulations

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

## Classifications

eCl@ss

|            |          |
|------------|----------|
| eCl@ss 4.0 | 27141130 |
| eCl@ss 4.1 | 27141130 |

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## Classifications

### eCl@ss

|            |          |
|------------|----------|
| eCl@ss 5.0 | 27141130 |
| eCl@ss 5.1 | 27141130 |
| 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 |
| UNSPSC 13.2   | 39121410 |

## Approvals

### Approvals

#### Approvals


CSA / UL Recognized / cUL Recognized / GL / BV / DNV / ABS / NK / EAC / EAC / LR / cULus Recognized

#### Ex Approvals

IECEX / ATEX / EAC Ex

#### Approvals submitted


### Approval details

|   |       |       |
|---|-------|-------|
| CSA  |       |       |
|   | B     | C     |
| mm <sup>2</sup> /AWG/kcmil  | 20-14 | 20-14 |
| Nominal current I <sub>N</sub>  | 15 A  | 15 A  |


## Feed-through terminal block - QTCU 2,5 - 3206539

### Approvals

|                    | B     | C     |
|--------------------|-------|-------|
| Nominal voltage UN | 600 V | 600 V |

UL Recognized 

|                            | B     | C     |
|----------------------------|-------|-------|
| mm <sup>2</sup> /AWG/kcmil | 20-14 | 20-14 |
| Nominal current IN         | 15 A  | 15 A  |
| Nominal voltage UN         | 600 V | 600 V |

cUL Recognized 

|                            | B     | C     |
|----------------------------|-------|-------|
| mm <sup>2</sup> /AWG/kcmil | 20-14 | 20-14 |
| Nominal current IN         | 15 A  | 15 A  |
| Nominal voltage UN         | 600 V | 600 V |

GL

BV

DNV

ABS

NK

EAC

EAC

LR

cULus Recognized 

### Drawings

## Feed-through terminal block - QTCU 2,5 - 3206539

Circuit diagram



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