

## Feed-through terminal block - PT 6 BK - 3211814

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Feed-through terminal block, nom. voltage: 1000 V, nominal current: 41 A, connection method: Push-in connection, number of connections: 2, cross section: 0.5 mm<sup>2</sup> - 10 mm<sup>2</sup>, AWG: 20 - 8, width: 8.2 mm, height: 42.2 mm, color: black, mounting type: NS 35/7,5, NS 35/15

### 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



### Key Commercial Data

|              |                                                                                                         |
|--------------|---------------------------------------------------------------------------------------------------------|
| Packing unit | 50 STK                                                                                                  |
| GTIN         | <br>4 046356 879842 |
| GTIN         | 4046356879842                                                                                           |

### Technical data

#### General

|                                                 |                   |
|-------------------------------------------------|-------------------|
| Number of levels                                | 1                 |
| Number of connections                           | 2                 |
| Potentials                                      | 1                 |
| Nominal cross section                           | 6 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                 |
| Overvoltage category                            | III               |
| Insulating material group                       | I                 |
| Maximum power dissipation for nominal condition | 1.31 W            |

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## Technical data

### General

|                                                                                           |                                                                |
|-------------------------------------------------------------------------------------------|----------------------------------------------------------------|
| Maximum load current                                                                      | 52 A (with 10 mm <sup>2</sup> conductor cross section)         |
| Nominal current I <sub>N</sub>                                                            | 41 A                                                           |
| Nominal voltage U <sub>N</sub>                                                            | 1000 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                                                | 2.2 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                                   |
|                                                                                           | 6 mm <sup>2</sup> / 1.4 kg                                     |
|                                                                                           | 10 mm <sup>2</sup> / 2 kg                                      |
| Tensile test result                                                                       | Test passed                                                    |
| Conductor cross section tensile test                                                      | 0.5 mm <sup>2</sup>                                            |
| Tractive force setpoint                                                                   | 20 N                                                           |
| Conductor cross section tensile test                                                      | 0.5 mm <sup>2</sup>                                            |
| Tractive force setpoint                                                                   | 20 N                                                           |
| Conductor cross section tensile test                                                      | 6 mm <sup>2</sup>                                              |
| Tractive force setpoint                                                                   | 80 N                                                           |
| Conductor cross section tensile test                                                      | 6 mm <sup>2</sup>                                              |
| Tractive force setpoint                                                                   | 80 N                                                           |
| Result of tight fit on support                                                            | Test passed                                                    |
| Tight fit on carrier                                                                      | NS 35                                                          |
| Setpoint                                                                                  | 5 N                                                            |
| Result of voltage-drop test                                                               | Test passed                                                    |
| Requirements, voltage drop                                                                | U <sub>1</sub> ≤ 3.2 mV; U <sub>2</sub> ≤ 1.5 x U <sub>1</sub> |
| Result of temperature-rise test                                                           | Test passed                                                    |
| Short circuit stability result                                                            | Test passed                                                    |
| Conductor cross section short circuit testing                                             | 6 mm <sup>2</sup>                                              |
| Short-time current                                                                        | 0.72 kA AC                                                     |
| Conductor cross section short circuit testing                                             | 10 mm <sup>2</sup>                                             |
| Short-time current                                                                        | 1.2 kA AC                                                      |
| Result of thermal test                                                                    | Test passed                                                    |
| Ageing test for screwless modular terminal block temperature cycles                       | 192                                                            |

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## Technical data

### General

|                                                                         |             |
|-------------------------------------------------------------------------|-------------|
| Proof of thermal characteristics (needle flame) effective duration      | 30 s        |
| Result of aging test                                                    | Test passed |
| Relative insulation material temperature index (Elec., UL 746 B)        | 130 °C      |
| Temperature index of insulation material (DIN EN 60216-1 (VDE 0304-21)) | 130 °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)                        | 28 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            | 8.2 mm  |
| End cover width  | 2.2 mm  |
| Length           | 57.7 mm |
| Height           | 42.2 mm |
| Height NS 35/7,5 | 43.5 mm |
| Height NS 35/15  | 51 mm   |

### Connection data

|                                                                            |                     |
|----------------------------------------------------------------------------|---------------------|
| Connection method                                                          | Push-in connection  |
| Connection in acc. with standard                                           | IEC 60947-7-1       |
| Conductor cross section solid min.                                         | 0.5 mm <sup>2</sup> |
| Conductor cross section solid max.                                         | 10 mm <sup>2</sup>  |
| Conductor cross section AWG min.                                           | 20                  |
| Conductor cross section AWG max.                                           | 8                   |
| Conductor cross section flexible min.                                      | 0.5 mm <sup>2</sup> |
| Conductor cross section flexible max.                                      | 6 mm <sup>2</sup>   |
| Min. AWG conductor cross section, flexible                                 | 20                  |
| Max. AWG conductor cross section, flexible                                 | 10                  |
| Conductor cross section flexible, with ferrule without plastic sleeve min. | 0.5 mm <sup>2</sup> |
| Conductor cross section flexible, with ferrule without plastic sleeve max. | 6 mm <sup>2</sup>   |
| Conductor cross section flexible, with ferrule with plastic sleeve min.    | 0.5 mm <sup>2</sup> |

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## Technical data

### Connection data

|                                                                                         |                     |
|-----------------------------------------------------------------------------------------|---------------------|
| Conductor cross section flexible, with ferrule with plastic sleeve max.                 | 6 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. | 1.5 mm <sup>2</sup> |
| Stripping length                                                                        | 12 mm               |
| Internal cylindrical gage                                                               | A5                  |

### Standards and Regulations

|                                                        |                                                 |
|--------------------------------------------------------|-------------------------------------------------|
| Connection in acc. with standard                       | CSA                                             |
|                                                        | 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

CSA / UL Recognized / cUL Recognized / LR / VDE Zeichengenehmigung / IECEx CB Scheme / BV / EAC / NK / DNV GL / PRS / ABS / cULus Recognized

#### Ex Approvals

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

### Approval details

# Feed-through terminal block - PT 6 BK - 3211814

## Approvals

|                            |       |                                                                                                                                         |       |
|----------------------------|-------|-----------------------------------------------------------------------------------------------------------------------------------------|-------|
| CSA                        |       | <a href="http://www.csagroup.org/services-industries/product-listing/">http://www.csagroup.org/services-industries/product-listing/</a> | 13631 |
|                            | B     | C                                                                                                                                       |       |
| Nominal voltage UN         | 600 V | 600 V                                                                                                                                   |       |
| Nominal current IN         | 40 A  | 40 A                                                                                                                                    |       |
| mm <sup>2</sup> /AWG/kcmil | 20-8  | 20-8                                                                                                                                    |       |

|                            |       |                                                                                                                                                       |              |
|----------------------------|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| 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                                                                                                                                                     |              |
| Nominal voltage UN         | 600 V | 600 V                                                                                                                                                 |              |
| Nominal current IN         | 40 A  | 40 A                                                                                                                                                  |              |
| mm <sup>2</sup> /AWG/kcmil | 20-8  | 20-8                                                                                                                                                  |              |

|                            |       |                                                                                                                                                       |              |
|----------------------------|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| 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                                                                                                                                                     |              |
| Nominal voltage UN         | 600 V | 600 V                                                                                                                                                 |              |
| Nominal current IN         | 40 A  | 40 A                                                                                                                                                  |              |
| mm <sup>2</sup> /AWG/kcmil | 20-8  | 20-8                                                                                                                                                  |              |

|    |  |                                                         |               |
|----|--|---------------------------------------------------------|---------------|
| LR |  | <a href="http://www.lr.org/en">http://www.lr.org/en</a> | 12/20038 (E3) |
|----|--|---------------------------------------------------------|---------------|

|                            |  |                                                                                                                                                                                                           |          |
|----------------------------|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| VDE Zeichengenehmigung     |  | <a href="http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx">http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx</a> | 40035239 |
|                            |  |                                                                                                                                                                                                           |          |
| Nominal voltage UN         |  | 1000 V                                                                                                                                                                                                    |          |
| Nominal current IN         |  | 41 A                                                                                                                                                                                                      |          |
| mm <sup>2</sup> /AWG/kcmil |  | 0.5-6                                                                                                                                                                                                     |          |

|                    |  |                                                           |           |
|--------------------|--|-----------------------------------------------------------|-----------|
| IECEE CB Scheme    |  | <a href="http://www.iecee.org/">http://www.iecee.org/</a> | DE1-57203 |
|                    |  |                                                           |           |
| Nominal voltage UN |  | 1000 V                                                    |           |

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### Approvals


|                            |       |
|----------------------------|-------|
| Nominal current IN         | 41 A  |
| mm <sup>2</sup> /AWG/kcmil | 0.5-6 |

|    |                                                                                   |                                                                                                                                                                                                                               |             |
|----|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| BV |  | <a href="http://www.veristar.com/portal/veristarinfo/generalinfo/approved/approvedProducts/equipmentAndMaterials">http://www.veristar.com/portal/veristarinfo/generalinfo/approved/approvedProducts/equipmentAndMaterials</a> | 37796/A2 BV |
|----|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|


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

|    |                                                                                   |                                                                               |          |
|----|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------|----------|
| NK |  | <a href="http://www.classnk.or.jp/hp/en/">http://www.classnk.or.jp/hp/en/</a> | 14ME0913 |
|----|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------|----------|

|        |  |                                                                           |            |
|--------|--|---------------------------------------------------------------------------|------------|
| DNV GL |  | <a href="http://exchange.dnv.com/tari/">http://exchange.dnv.com/tari/</a> | TAE000010T |
|--------|--|---------------------------------------------------------------------------|------------|

|     |                                                                                     |                                                     |                   |
|-----|-------------------------------------------------------------------------------------|-----------------------------------------------------|-------------------|
| PRS |  | <a href="http://www.prs.pl/">http://www.prs.pl/</a> | TE/2107/880590/16 |
|-----|-------------------------------------------------------------------------------------|-----------------------------------------------------|-------------------|

|     |  |                                                                                                         |                  |
|-----|--|---------------------------------------------------------------------------------------------------------|------------------|
| ABS |  | <a href="http://www.eagle.org/eagleExternalPortalWEB/">http://www.eagle.org/eagleExternalPortalWEB/</a> | 16-HG1591536-PDA |
|-----|--|---------------------------------------------------------------------------------------------------------|------------------|

|                  |                                                                                     |                                                                                                                                                       |  |
|------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| 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> |  |
|------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|--|

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