

# Protective conductor double-level terminal block - PTTB 2,5-PE/ N - 3210981

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Protective conductor double-level terminal block, Cross section: 0.14 mm<sup>2</sup> - 4 mm<sup>2</sup>, AWG: 26 - 12, Connection type: Push-in connection, Width: 5.2 mm, Color: gray, Mounting type: NS 35/7,5, NS 35/15

## Product Features

- ✓ 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

|                  |               |
|------------------|---------------|
| package_quantity | 50            |
| GTIN             | 4046356419055 |

## Technical data

### General

|                                         |      |
|-----------------------------------------|------|
| Number of levels                        | 2    |
| Number of connections                   | 4    |
| Color                                   | gray |
| Insulating material                     | PA   |
| Inflammability class according to UL 94 | V0   |

### General

|                                     |                                     |
|-------------------------------------|-------------------------------------|
| Rated surge voltage                 | 6 kV                                |
| Pollution degree                    | 3                                   |
| Surge voltage category              | III                                 |
| Insulating material group           | I                                   |
| Connection in acc. with standard    | IEC 60947-7-1 / IEC 60947-7-2       |
| Nominal current I <sub>N</sub>      | 24 A                                |
| Nominal voltage U <sub>N</sub>      | 500 V                               |
| Open side panel                     | ja                                  |
| Shock protection test specification | DIN EN 50274 (VDE 0660-514):2002-11 |
| Back of the hand protection         | guaranteed                          |
| Finger protection                   | guaranteed                          |
| Surge voltage test setpoint         | 7.3 kV                              |

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## Technical data

### General

|                                                                                 |                                                     |
|---------------------------------------------------------------------------------|-----------------------------------------------------|
| Result of surge voltage test                                                    | Test passed                                         |
| Power frequency withstand voltage setpoint                                      | 1.89 kV                                             |
| Result of power-frequency withstand voltage test                                | Test passed                                         |
| Checking the mechanical stability of terminal points (5 x conductor connection) | 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                       |
| Bending test conductor cross section/weight                                     | 2.5 mm <sup>2</sup> / 0.7 kg                        |
| Bending test conductor cross section/weight                                     | 4 mm <sup>2</sup> / 0.9 kg                          |
| Result of bending test                                                          | Test passed                                         |
| Conductor cross section tensile test                                            | 0.14 mm <sup>2</sup>                                |
| Tractive force setpoint                                                         | 10 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                                                |
| Tensile test result                                                             | Test passed                                         |
| Tight fit on carrier                                                            | NS 35                                               |
| Setpoint                                                                        | 1 N                                                 |
| Result of tight fit test                                                        | Test passed                                         |
| Requirements, voltage drop                                                      | ≤ 3.2 mV                                            |
| Result of voltage drop test                                                     | Test passed                                         |
| Temperature-rise test                                                           | 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                                             |
| Short circuit stability result                                                  | Test passed                                         |
| Ageing test for screwless modular terminal block temperature cycles             | 192                                                 |
| Result of aging test                                                            | Test passed                                         |
| Proof of thermal characteristics (needle flame) effective duration              | 30 s                                                |
| Result of thermal test                                                          | 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 <sub>1</sub> = 5 Hz to f <sub>2</sub> = 150 Hz    |
| ASD level                                                                       | 1.857 (m/s <sup>2</sup> ) <sup>2</sup> /Hz          |
| Acceleration                                                                    | 0.8 g                                               |
| Test duration per axis                                                          | 5 h                                                 |

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## Technical data

### General

|                                                                       |                                     |
|-----------------------------------------------------------------------|-------------------------------------|
| Test directions                                                       | X-, Y- and Z-axis                   |
| Oscillation, broadband noise 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                                   |
| Test directions                                                       | X-, Y- and Z-axis (pos. and neg.)   |
| Shock test result                                                     | Test passed                         |
| Temperature index, insulating material (DIN EN 60216-1 (VDE 0304-21)) | 125 °C                              |
| Static insulating material application in cold                        | -60 °C                              |

### Dimensions

|                  |         |
|------------------|---------|
| Width            | 5.2 mm  |
| Length           | 68 mm   |
| Height NS 35/7,5 | 47.5 mm |
| Height NS 35/15  | 55 mm   |

### Connection data

|                                                                                         |                      |
|-----------------------------------------------------------------------------------------|----------------------|
| Conductor cross section solid min.                                                      | 0.14 mm <sup>2</sup> |
| Conductor cross section solid max.                                                      | 4 mm <sup>2</sup>    |
| Conductor cross section stranded min.                                                   | 0.14 mm <sup>2</sup> |
| Conductor cross section stranded max.                                                   | 2.5 mm <sup>2</sup>  |
| Conductor cross section AWG/kcmil min.                                                  | 26                   |
| Conductor cross section AWG/kcmil max                                                   | 12                   |
| Conductor cross section stranded, with ferrule without plastic sleeve min.              | 0.14 mm <sup>2</sup> |
| Conductor cross section stranded, with ferrule without plastic sleeve max.              | 2.5 mm <sup>2</sup>  |
| Conductor cross section stranded, with ferrule with plastic sleeve min.                 | 0.14 mm <sup>2</sup> |
| Conductor cross section stranded, 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 method                                                                       | Push-in connection   |
| Stripping length                                                                        | 10 mm                |
| Internal cylindrical gage                                                               | A3                   |

## classifications

eCl@ss

# Protective conductor double-level terminal block - PTTB 2,5-PE/ N - 3210981

## classifications

### eCl@ss

|            |          |
|------------|----------|
| eCl@ss 4.0 | 27141118 |
| eCl@ss 4.1 | 27141118 |
| eCl@ss 5.0 | 27141118 |
| eCl@ss 5.1 | 27141118 |
| eCl@ss 6.0 | 27141141 |
| eCl@ss 7.0 | 27141141 |
| eCl@ss 8.0 | 27141141 |

### ETIM

|          |          |
|----------|----------|
| ETIM 2.0 | EC000901 |
| ETIM 3.0 | EC000901 |
| ETIM 4.0 | EC000901 |
| ETIM 5.0 | EC000901 |

### UNSPSC

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

## approvals

CSA / UL Recognized / cUL Recognized / GOST / LR / GL / RS / ABS / NK / BV / GOST / cULus Recognized /

### Approval details

| <b>CSA</b>  |       |       |
|------------------------------------------------------------------------------------------------|-------|-------|
| Usegroups                                                                                      | B     | C     |
| Nominal voltage UN                                                                             | 300 V | 300 V |
| Nominal current IN                                                                             | 20 A  | 20 A  |
| mm²/AWG/kcmil                                                                                  | 26-12 | 26-12 |

| <b>UL Recognized</b>  |       |       |
|----------------------------------------------------------------------------------------------------------|-------|-------|
| Usegroups                                                                                                | B     | C     |
| Nominal voltage UN                                                                                       | 300 V | 300 V |
| Nominal current IN                                                                                       | 20 A  | 20 A  |

# Protective conductor double-level terminal block - PTTB 2,5-PE/ N - 3210981

## approvals

| Usegroups     | B     | C     |
|---------------|-------|-------|
| mm²/AWG/kcmil | 24-12 | 24-12 |

| cUL Recognized  |       |       |
|--------------------------------------------------------------------------------------------------|-------|-------|
| Usegroups                                                                                        | B     | C     |
| Nominal voltage UN                                                                               | 300 V | 300 V |
| Nominal current IN                                                                               | 20 A  | 20 A  |
| mm²/AWG/kcmil                                                                                    | 24-12 | 24-12 |

|                                                                                        |
|----------------------------------------------------------------------------------------|
| GOST  |
|----------------------------------------------------------------------------------------|

|    |
|----|
| LR |
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|    |
|----|
| GL |
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|    |
|----|
| RS |
|----|

|     |
|-----|
| ABS |
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|    |
|----|
| NK |
|----|

|    |
|----|
| BV |
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|                                                                                     |
|-------------------------------------------------------------------------------------|
|  |
|-------------------------------------------------------------------------------------|

|                                                                                                         |
|---------------------------------------------------------------------------------------------------------|
| cULus Recognized  US |
|---------------------------------------------------------------------------------------------------------|

## accessories

### Partition plate

# Protective conductor double-level terminal block - PTTB 2,5-PE/ N - 3210981

## accessories

ATP-STTB 4 - 3030747



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## End cover

D-PTTB 2,5 - 3211634



DP PS-5 - 3036725



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## Screwdriver tools

SZF 1-0,6X3,5 - 1204517



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## Marker carriers

STP 5-2 - 0800967



# Protective conductor double-level terminal block - PTTB 2,5-PE/ N - 3210981

accessories

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STP 5-2/S - 0800970



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## Documentation

PT-IL - 3208090



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## Bridge

FBS 2-5 - 3030161



FBS 3-5 - 3030174



FBS 4-5 - 3030187



## Protective conductor double-level terminal block - PTTB 2,5-PE/ N - 3210981

### accessories

FBS 5-5 - 3030190



FBS 10-5 - 3030213



FBS 20-5 - 3030226



FBS 50-5 - 3038930



### Mounting rail

NS 35/ 7,5 PERF 2000MM - 0801733



## Protective conductor double-level terminal block - PTTB 2,5-PE/ N - 3210981

### accessories

NS 35/ 7,5 UNPERF 2000MM - 0801681



NS 35/ 7,5 WH PERF 2000MM - 1204119



NS 35/ 7,5 WH UNPERF 2000MM - 1204122



NS 35/ 7,5 AL UNPERF 2000MM - 0801704



NS 35/ 7,5 ZN PERF 2000MM - 1206421



## Protective conductor double-level terminal block - PTTB 2,5-PE/ N - 3210981

### accessories

NS 35/ 7,5 ZN UNPERF 2000MM - 1206434



NS 35/ 7,5 CU UNPERF 2000MM - 0801762



NS 35/ 7,5 CAP - 1206560



NS 35/15 PERF 2000MM - 1201730



NS 35/15 UNPERF 2000MM - 1201714



## Protective conductor double-level terminal block - PTTB 2,5-PE/ N - 3210981

### accessories

NS 35/15 WH PERF 2000MM - 0806602



NS 35/15 WH UNPERF 2000MM - 1204135



NS 35/15 AL UNPERF 2000MM - 1201756



NS 35/15 ZN PERF 2000MM - 1206599



NS 35/15 ZN UNPERF 2000MM - 1206586



## Protective conductor double-level terminal block - PTTB 2,5-PE/ N - 3210981

### accessories

NS 35/15 CU UNPERF 2000MM - 1201895



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NS 35/15 CAP - 1206573



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NS 35/15-2,3 UNPERF 2000MM - 1201798



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### Terminal marking

ZBF 5:UNBEDRUCKT - 0808642



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UC-TMF 5 - 0818153



## Protective conductor double-level terminal block - PTTB 2,5-PE/ N - 3210981

accessories

UCT-TMF 5 - 0828744



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### Labeled terminal marker

ZBF 5 CUS - 0825025



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UC-TMF 5 CUS - 0824638



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UCT-TMF 5 CUS - 0829658



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### Test plug terminal block

MPS-MT - 0201744



## Protective conductor double-level terminal block - PTTB 2,5-PE/ N - 3210981

### accessories

PAI-4-FIX-5/6 BU - 3035975



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PAI-4-FIX-5/6 OG - 3035974



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PAI-4-FIX-5/6 YE - 3035977



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PAI-4-FIX-5/6 RD - 3035976



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PAI-4-FIX-5/6 GN - 3035978



## Protective conductor double-level terminal block - PTTB 2,5-PE/ N - 3210981

### accessories

PAI-4-FIX-5/6 BK - 3035980



PAI-4-FIX-5/6 GY - 3035982



PAI-4-FIX-5/6 VT - 3035979



PAI-4-FIX-5/6 BN - 3035981



PS-5 - 3030983



# Protective conductor double-level terminal block - PTTB 2,5-PE/ N - 3210981

accessories

PS-5/2,3MM RD - 3038723



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## Insulating sleeve

MPS-IH WH - 0201663



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MPS-IH RD - 0201676



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MPS-IH BU - 0201689



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MPS-IH YE - 0201692



## Protective conductor double-level terminal block - PTTB 2,5-PE/ N - 3210981

### accessories

MPS-IH GN - 0201702



MPS-IH GY - 0201728



MPS-IH BK - 0201731



ISH 2,5/0,2 - 3002843



ISH 2,5/0,5 - 3002856



## Protective conductor double-level terminal block - PTTB 2,5-PE/ N - 3210981

accessories

ISH 2,5/1,0 - 3002869



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### Planning and marking software

CLIP-PROJECT ADVANCED - 5146040



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CLIP-PROJECT PROFESSIONAL - 5146053



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### End block

CLIPFIX 35 - 3022218



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CLIPFIX 35-5 - 3022276



## Protective conductor double-level terminal block - PTTB 2,5-PE/ N - 3210981

accessories

E/NS 35 N - 0800886



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### Drawings

Circuit diagram



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