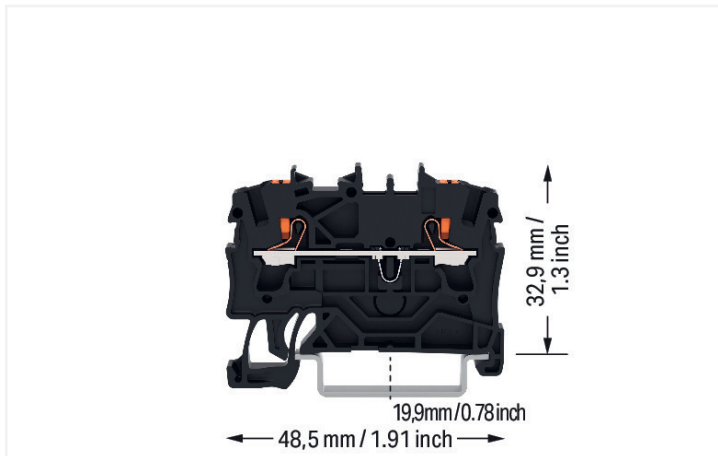


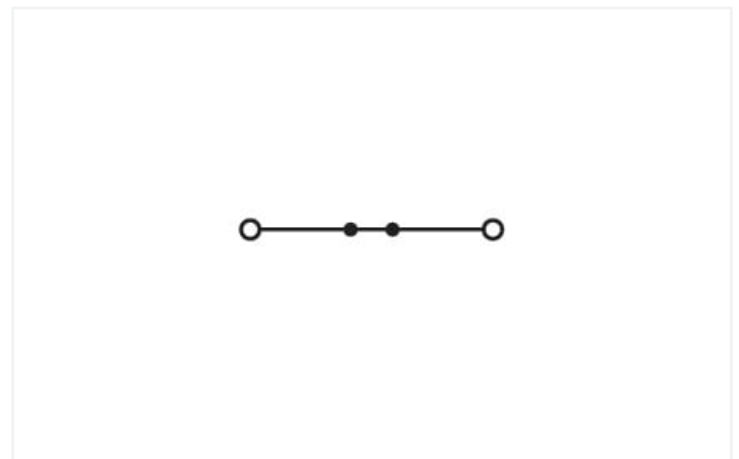
## Data Sheet | Item Number: 2202-1205

2-conductor through terminal block; with push-button; 2.5 mm<sup>2</sup>; with test port; suitable for Ex e II applications; side and center marking; for DIN-rail 35 x 15 and 35 x 7.5; Push-in CAGE CLAMP®; 2,50 mm<sup>2</sup>; black

<https://www.wago.com/2202-1205>



Color: ■ black



Similar to illustration

Through terminal block, 2202 Series, black

Our through terminal block (item number 2202-1205) simplifies electrical installations. Whether in industrial or building applications, our rail-mount through terminal blocks are the perfect solution to quickly and securely connect electrical conductors. Depending on the variant, you can use them for either typical through-wiring or potential distribution. This through rail-mount terminal block has a rated voltage of 800 V and can handle currents up to 24 A. Strip lengths must be between 10 mm and 12 mm when connecting conductors to this through terminal block. Featuring conductor terminals along with Push-in CAGE CLAMP®, this product outperforms the competition. Our Push-in CAGE CLAMP® is a universal, maintenance-free connection solution for all conductor types, offering a key advantage: It allows direct insertion of both solid and fine-stranded conductors with ferrules without needing tools. No preparation is required; for example, crimping the conductor's ferrule is not necessary. The item's dimensions are 5.2 x 48.5 x 39.5 mm (width x height x depth). Depending on the conductor type, this through terminal block is designed for conductor cross sections ranging from 0.25 mm<sup>2</sup> to 4 mm<sup>2</sup>. It features one level and two clamping points that you can use to connect a single potential. The black housing is made of polyamide (PA66) for insulation. A push-button is used to operate this through rail-mount terminal block. Our TOPJOB® S rail-mount terminal blocks guarantee reliable electrical connections in different industrial applications and modern building installations. They simplify wiring, as you can quickly plug in solid, stranded, and fine-stranded conductors with ferrules. These through rail-mount terminal blocks are mounted using DIN-35 rails. Conductors made of copper can be connected via front-entry wiring. The two jumper slots enable potential distribution to other clamping points. This product is designed for specific Ex applications (please refer to the product datasheet).



Electrical data

| Ratings per                                   | IEC/EN 60947-7-1 |     |    |
|-----------------------------------------------|------------------|-----|----|
| Overvoltage category                          | III              | III | II |
| Pollution degree                              | 3                | 2   | 2  |
| Nominal voltage                               | 800 V            | -   | -  |
| Rated surge voltage                           | 8 kV             | -   | -  |
| Rated current                                 | 24 A             | -   | -  |
| Current at conductor cross-section (max.) mm² | 32 A             | -   | -  |

| Approvals per | UL 1059 |       |   |
|---------------|---------|-------|---|
| Use group     | B       | C     | D |
| Rated voltage | 600 V   | 600 V | - |
| Rated current | 20 A    | 20 A  | - |

| Approvals per | CSA 22.2 No 158 |       |   |
|---------------|-----------------|-------|---|
| Use group     | B               | C     | D |
| Rated voltage | 600 V           | 600 V | - |
| Rated current | 20 A            | 20 A  | - |

| Ex information                      |                                                                                                     |
|-------------------------------------|-----------------------------------------------------------------------------------------------------|
| Reference hazardous areas           | See "Downloads – Documentation – Additional Information: Technical Section; Technical Explications" |
| Ratings per                         | ATEX: PTB 18 ATEX 1005 U / IECEx: PTB 18.0012U (Ex eb IIC Gb)                                       |
| Rated voltage EN (Ex e II)          | 550 V                                                                                               |
| Rated current (Ex e II)             | 22 A                                                                                                |
| Rated current (Ex e II) with jumper | 20 A                                                                                                |

| Power Loss                                                   |           |
|--------------------------------------------------------------|-----------|
| Power loss, per pole (potential)                             | 0.7661 W  |
| Rated current I <sub>N</sub> for specified power loss        | 24 A      |
| Resistance value for specified, current-dependent power loss | 0.00133 Ω |

Connection data

|                            |   |
|----------------------------|---|
| Clamping units             | 2 |
| Total number of potentials | 1 |
| Number of levels           | 1 |
| Number of jumper slots     | 2 |

| Connection 1                                               |                                                                                                                                   |
|------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| Connection technology                                      | Push-in CAGE CLAMP®                                                                                                               |
| Actuation type                                             | Push-button                                                                                                                       |
| Connectable conductor materials                            | Copper                                                                                                                            |
| Nominal cross-section                                      | 2.5 mm²                                                                                                                           |
| Solid conductor                                            | 0.25 ... 4 mm² / 22 ... 12 AWG                                                                                                    |
| Solid conductor; push-in termination                       | 0.75 ... 4 mm² / 18 ... 12 AWG                                                                                                    |
| Fine-stranded conductor                                    | 0.25 ... 4 mm² / 22 ... 12 AWG                                                                                                    |
| Fine-stranded conductor; with insulated ferrule            | 0.25 ... 2.5 mm² / 22 ... 14 AWG                                                                                                  |
| Fine-stranded conductor; with ferrule; push-in termination | 1 ... 2.5 mm² / 18 ... 14 AWG                                                                                                     |
| Note (conductor cross-section)                             | Depending on the conductor characteristic, a conductor with a smaller cross-section can also be inserted via push-in termination. |
| Strip length                                               | 10 ... 12 mm / 0.39 ... 0.47 inches                                                                                               |
| Wiring direction                                           | Front-entry wiring                                                                                                                |



| Physical data                     |                        |
|-----------------------------------|------------------------|
| Width                             | 5.2 mm / 0.205 inches  |
| Height                            | 48.5 mm / 1.909 inches |
| Depth from upper-edge of DIN-rail | 32.9 mm / 1.295 inches |
| Depth                             | 39.5 mm / 1.555 inches |

| Mechanical data |                     |
|-----------------|---------------------|
| Mounting type   | DIN-35 rail         |
| Marking level   | Center/side marking |

| Material data                      |                                                                          |
|------------------------------------|--------------------------------------------------------------------------|
| Note (material data)               | <a href="#">Information on material specifications can be found here</a> |
| Color                              | black                                                                    |
| Material group                     | I                                                                        |
| Insulation material (main housing) | Polyamide (PA66)                                                         |
| Flammability class per UL94        | V0                                                                       |
| Fire load                          | 0.129 MJ                                                                 |
| Actuator color                     | orange                                                                   |
| Weight                             | 5.3 g                                                                    |

| Environmental requirements                                                                         |                                                                                                                                             |
|----------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| Processing temperature                                                                             | -35 ... +85 °C                                                                                                                              |
| Continuous operating temperature                                                                   | -60 ... +105 °C                                                                                                                             |
| Environmental Testing (Environmental Conditions)                                                   |                                                                                                                                             |
| Test specification<br>Railway applications –<br>Rolling stock –<br>Electronic equipment            | DIN EN 50155 (VDE 0115-200):2022-06                                                                                                         |
| Test procedure<br>Railway applications –<br>Rolling stock equipment –<br>Shock and vibration tests | DIN EN 61373 (VDE 0115-0106):2011-04                                                                                                        |
| Spectrum/Installation location                                                                     | Service life test, Category 1, Class A/B                                                                                                    |
| Function test with noise-like vibration                                                            | Test passed according to Section 8 of the standard                                                                                          |
| Frequency                                                                                          | f <sub>1</sub> = 5 Hz to f <sub>2</sub> = 150 Hz<br>f <sub>1</sub> = 5 Hz to f <sub>2</sub> = 150 Hz                                        |
| Acceleration                                                                                       | 0.101g (highest test level used for all axes)<br>0.572g (highest test level used for all axes)<br>5g (highest test level used for all axes) |
| Test duration per axis                                                                             | 10 min.<br>5 h                                                                                                                              |
| Test directions                                                                                    | X, Y and Z axes<br>X, Y and Z axes<br>X, Y and Z axes                                                                                       |
| Monitoring for contact faults/interruptions                                                        | Passed                                                                                                                                      |
| Voltage drop measurement before and after each axis                                                | Passed                                                                                                                                      |
| Simulated service life test through increased levels of noise-like vibration                       | Test passed according to Section 9 of the standard                                                                                          |
| Extended test scope: Monitoring for contact faults/interruptions                                   | Passed<br>Passed                                                                                                                            |
| Extended test scope: Voltage drop measurement before and after each axis                           | Passed<br>Passed                                                                                                                            |
| Shock test                                                                                         | Test passed according to Section 10 of the standard                                                                                         |
| Shock form                                                                                         | Half sine                                                                                                                                   |
| Shock duration                                                                                     | 30 ms                                                                                                                                       |



| Environmental Testing (Environmental Conditions)       |                   |
|--------------------------------------------------------|-------------------|
| Number of shocks per axis                              | 3 pos. und 3 neg. |
| Vibration and shock stress for rolling stock equipment | Passed            |

| Commercial data       |               |
|-----------------------|---------------|
| ETIM 9.0              | EC000897      |
| ETIM 8.0              | EC000897      |
| PU (SPU)              | 100 pcs       |
| Packaging type        | Box           |
| Country of origin     | DE            |
| GTIN                  | 4055143848664 |
| Customs tariff number | 85369010000   |

| Environmental Product Compliance |                         |
|----------------------------------|-------------------------|
| RoHS Compliance Status           | Compliant, No Exemption |

Approvals / Certificates

General approvals

CCA

CSA

KEMA/KEUR

UL US

| Approval                              | Standard | Certificate Name                    |
|---------------------------------------|----------|-------------------------------------|
| CCA<br>DEKRA Certification B.V.       | EN 60947 | NTR NL-7950                         |
| CSA<br>DEKRA Certification B.V.       | C22.2    | 70173745                            |
| KEMA/KEUR<br>DEKRA Certification B.V. | EN 60947 | 71-124827                           |
| UL<br>Underwriters Laboratories Inc.  | UL 1059  | UL-CA-<br>L45172-6189178-11508102-1 |

Declarations of conformity and manufacturer's declarations

RAILWAY  
READY

| Approval                                                  | Standard | Certificate Name |
|-----------------------------------------------------------|----------|------------------|
| ATEX-Attestation of Con-<br>formity<br>WAGO GmbH & Co. KG | -        | -                |
| EU-Declaration of Confor-<br>mity<br>WAGO GmbH & Co. KG   | -        | -                |
| Railway<br>WAGO GmbH & Co. KG                             | -        | Z00004404.000    |
| UK-Declaration of Confor-<br>mity<br>WAGO GmbH & Co. KG   | -        | -                |

| Approvals for marine applications                                                                                                                                                                                                                                                                                                                                                                                                            |           |                  |                  |                                         |   |                  |                           |           |             |                                                       |   |            |                       |   |          |  |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|------------------|------------------|-----------------------------------------|---|------------------|---------------------------|-----------|-------------|-------------------------------------------------------|---|------------|-----------------------|---|----------|--|--|
|                                                                                                   |           |                  |                  |                                         |   |                  |                           |           |             |                                                       |   |            |                       |   |          |  |  |
| <table><tr><th>Approval</th><th>Standard</th><th>Certificate Name</th></tr><tr><td>ABS<br/>American Bureau of Ship-<br/>ping</td><td>-</td><td>19-HG1866350-PDA</td></tr><tr><td>BV<br/>Bureau Veritas S.A.</td><td>IEC 60947</td><td>58186/A0 BV</td></tr><tr><td>DNV GL<br/>Det Norske Veritas, Ger-<br/>manischer Lloyd</td><td>-</td><td>TAE00003JT</td></tr><tr><td>LR<br/>Lloyds Register</td><td>-</td><td>19/20050</td></tr></table> | Approval  | Standard         | Certificate Name | ABS<br>American Bureau of Ship-<br>ping | - | 19-HG1866350-PDA | BV<br>Bureau Veritas S.A. | IEC 60947 | 58186/A0 BV | DNV GL<br>Det Norske Veritas, Ger-<br>manischer Lloyd | - | TAE00003JT | LR<br>Lloyds Register | - | 19/20050 |  |  |
| Approval                                                                                                                                                                                                                                                                                                                                                                                                                                     | Standard  | Certificate Name |                  |                                         |   |                  |                           |           |             |                                                       |   |            |                       |   |          |  |  |
| ABS<br>American Bureau of Ship-<br>ping                                                                                                                                                                                                                                                                                                                                                                                                      | -         | 19-HG1866350-PDA |                  |                                         |   |                  |                           |           |             |                                                       |   |            |                       |   |          |  |  |
| BV<br>Bureau Veritas S.A.                                                                                                                                                                                                                                                                                                                                                                                                                    | IEC 60947 | 58186/A0 BV      |                  |                                         |   |                  |                           |           |             |                                                       |   |            |                       |   |          |  |  |
| DNV GL<br>Det Norske Veritas, Ger-<br>manischer Lloyd                                                                                                                                                                                                                                                                                                                                                                                        | -         | TAE00003JT       |                  |                                         |   |                  |                           |           |             |                                                       |   |            |                       |   |          |  |  |
| LR<br>Lloyds Register                                                                                                                                                                                                                                                                                                                                                                                                                        | -         | 19/20050         |                  |                                         |   |                  |                           |           |             |                                                       |   |            |                       |   |          |  |  |

| Approvals for hazardous areas                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |             |                                                                      |                  |                                       |          |                                         |                                                  |             |                                                                      |                    |             |                  |                                                   |           |                                                     |  |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|----------------------------------------------------------------------|------------------|---------------------------------------|----------|-----------------------------------------|--------------------------------------------------|-------------|----------------------------------------------------------------------|--------------------|-------------|------------------|---------------------------------------------------|-----------|-----------------------------------------------------|--|--|
|                                                                                                                                                                                                                                                                            |             |                                                                      |                  |                                       |          |                                         |                                                  |             |                                                                      |                    |             |                  |                                                   |           |                                                     |  |  |
| <table><tr><th>Approval</th><th>Standard</th><th>Certificate Name</th></tr><tr><td>AEx<br/>Underwriters Laboratories Inc.</td><td>UL 60079</td><td>E185892 (AEx eb IIC resp.<br/>Ex eb IIC)</td></tr><tr><td>ATEX<br/>Physikalisch Technische<br/>Bundesanstalt</td><td>IEC 60079-0</td><td>PTB 18 ATEX 1005 U (II 2<br/>G Ex eb IIC Gb bzw. I M 2<br/>Ex eb I Mb)</td></tr><tr><td>CCCEX<br/>CQST/CNEX</td><td>GB/T 3836.3</td><td>2020312313000169</td></tr><tr><td>IECEx<br/>Physikalisch Technische<br/>Bundesanstalt</td><td>IEC 60079</td><td>IECEx PTB 18.0012U (Ex<br/>eb IIC Gb and Ex eb I Mb)</td></tr></table> | Approval    | Standard                                                             | Certificate Name | AEx<br>Underwriters Laboratories Inc. | UL 60079 | E185892 (AEx eb IIC resp.<br>Ex eb IIC) | ATEX<br>Physikalisch Technische<br>Bundesanstalt | IEC 60079-0 | PTB 18 ATEX 1005 U (II 2<br>G Ex eb IIC Gb bzw. I M 2<br>Ex eb I Mb) | CCCEX<br>CQST/CNEX | GB/T 3836.3 | 2020312313000169 | IECEx<br>Physikalisch Technische<br>Bundesanstalt | IEC 60079 | IECEx PTB 18.0012U (Ex<br>eb IIC Gb and Ex eb I Mb) |  |  |
| Approval                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Standard    | Certificate Name                                                     |                  |                                       |          |                                         |                                                  |             |                                                                      |                    |             |                  |                                                   |           |                                                     |  |  |
| AEx<br>Underwriters Laboratories Inc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | UL 60079    | E185892 (AEx eb IIC resp.<br>Ex eb IIC)                              |                  |                                       |          |                                         |                                                  |             |                                                                      |                    |             |                  |                                                   |           |                                                     |  |  |
| ATEX<br>Physikalisch Technische<br>Bundesanstalt                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | IEC 60079-0 | PTB 18 ATEX 1005 U (II 2<br>G Ex eb IIC Gb bzw. I M 2<br>Ex eb I Mb) |                  |                                       |          |                                         |                                                  |             |                                                                      |                    |             |                  |                                                   |           |                                                     |  |  |
| CCCEX<br>CQST/CNEX                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | GB/T 3836.3 | 2020312313000169                                                     |                  |                                       |          |                                         |                                                  |             |                                                                      |                    |             |                  |                                                   |           |                                                     |  |  |
| IECEx<br>Physikalisch Technische<br>Bundesanstalt                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | IEC 60079   | IECEx PTB 18.0012U (Ex<br>eb IIC Gb and Ex eb I Mb)                  |                  |                                       |          |                                         |                                                  |             |                                                                      |                    |             |                  |                                                   |           |                                                     |  |  |



|                                                                                                                                                         |                   |                                                                                                                                                               |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Downloads                                                                                                                                               |                   |                                                                                                                                                               |  |
| Environmental Product Compliance                                                                                                                        |                   |                                                                                                                                                               |  |
| Compliance Search                                                                                                                                       |                   |                                                                                                                                                               |  |
| Environmental Product Compliance 2202-1205                                                                                                              |                   |                                                                                                                                                               |  |
|                                                                                                                                                         |                   |                                                                                                                                                               |  |
| Documentation                                                                                                                                           |                   |                                                                                                                                                               |  |
| Additional Information                                                                                                                                  |                   |                                                                                                                                                               |  |
| Technical Section                                                                                                                                       | pdf<br>2246.92 KB |                                                                                                                                                               |  |
|                                                                                                                                                         |                   |                                                                                                                                                               |  |
| CAD/CAE-Data                                                                                                                                            |                   |                                                                                                                                                               |  |
| CAD data                                                                                                                                                |                   | CAE data                                                                                                                                                      |  |
| 2D/3D Models<br>2202-1205                                                                                                                               |                   | EPLAN Data Portal<br>2202-1205                                                                                                                                |  |
|                                                                                                                                                         |                   |                                                                                                                                                               |  |
|                                                                                                                                                         |                   | ZUKEN Portal<br>2202-1205                                                                                                                                     |  |
|                                                                                                                                                         |                   |                                                                                                                                                               |  |
|                                                                                                                                                         |                   |                                                                                                                                                               |  |
| 1 Compatible Products                                                                                                                                   |                   |                                                                                                                                                               |  |
| 1.1 Required Accessories                                                                                                                                |                   |                                                                                                                                                               |  |
| 1.1.1 End plate                                                                                                                                         |                   |                                                                                                                                                               |  |
| 1.1.1.1 End plate                                                                                                                                       |                   |                                                                                                                                                               |  |
|                                                                      |                   |                                                                                                                                                               |  |
| <a href="#">Item No.: 2002-1291</a><br>End and intermediate plate; 0.8 mm thick; gray                                                                   |                   |                                                                            |  |
|                                                                                                                                                         |                   |                                                                           |  |
| <a href="#">Item No.: 2002-1292</a><br>End and intermediate plate; 0.8 mm thick; orange                                                                 |                   | <a href="#">Item No.: 209-191</a><br>Separator for Ex e/Ex i applications; 3 mm thick; 120 mm wide; orange                                                    |  |
|                                                                                                                                                         |                   |                                                                                                                                                               |  |
| 1.2 Optional Accessories                                                                                                                                |                   |                                                                                                                                                               |  |
| 1.2.1 DIN-rail                                                                                                                                          |                   |                                                                                                                                                               |  |
| 1.2.1.1 Mounting accessories                                                                                                                            |                   |                                                                                                                                                               |  |
|                                                                      |                   |                                                                                                                                                               |  |
| <a href="#">Item No.: 210-196</a><br>Aluminum carrier rail; 35 x 8.2 mm; 1.6 mm thick; 2 m long; unslopped; similar to EN 60715; silver-colored         |                   |                                                                            |  |
|                                                                                                                                                         |                   |                                                                           |  |
| <a href="#">Item No.: 210-198</a><br>Copper carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslopped; according to EN 60715; copper-colored          |                   | <a href="#">Item No.: 210-508</a><br>Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slopped; galvanized; similar to EN 60715; silver-colored         |  |
|                                                                      |                   |                                                                            |  |
| <a href="#">Item No.: 210-506</a><br>Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslopped; galvanized; similar to EN 60715; silver-colored |                   | <a href="#">Item No.: 210-118</a><br>Steel carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslopped; according to EN 60715; silver-colored                 |  |
|                                                                     |                   |                                                                          |  |
| <a href="#">Item No.: 210-114</a><br>Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslopped; similar to EN 60715; silver-colored             |                   | <a href="#">Item No.: 210-115</a><br>Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slopped; according to EN 60715; "Hole width 18 mm; silver-colored |  |
|                                                                    |                   |                                                                                                                                                               |  |



1.2.1.1 Mounting accessories



**Item No.: 210-112**  
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; according to EN 60715; "Hole width 25 mm; silver-colored



**Item No.: 210-504**  
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; galvanized; according to EN 60715; silver-colored



**Item No.: 210-113**  
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; according to EN 60715; silver-colored



**Item No.: 210-505**  
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; galvanized; according to EN 60715; silver-colored

1.2.2 End plate

1.2.2.1 End plate



**Item No.: 209-190**  
Separator for Ex e/Ex i applications; 3 mm thick; 90 mm wide; orange



**Item No.: 2002-1293**  
Separator plate; 2 mm thick; oversized; gray



**Item No.: 2002-1294**  
Separator plate; 2 mm thick; oversized; orange

1.2.3 Ferrule

1.2.3.1 Ferrule



**Item No.: 216-241**  
Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; white



**Item No.: 216-242**  
Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray



**Item No.: 216-262**  
Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray



**Item No.: 216-243**  
Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red



**Item No.: 216-263**  
Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red



**Item No.: 216-244**  
Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black



**Item No.: 216-264**  
Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black



**Item No.: 216-246**  
Ferrule; Sleeve for 2.5 mm² / AWG 14; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; blue



**Item No.: 216-266**  
Ferrule; Sleeve for 2.5 mm² / AWG 14; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; blue

1.2.4 Installation

1.2.4.1 Cover



**Item No.: 709-156**  
Cover; Type 3; suitable for cover carrier, type 3; 1 m long; transparent



## 1.2.6.1 Jumper



**Item No.: 2002-409/000-005**  
Jumper; 9-way; insulated; red



**Item No.: 2002-440**  
Jumper; from 1 to 10; insulated; light gray



**Item No.: 2002-433**  
Jumper; from 1 to 3; insulated; light gray



**Item No.: 2002-434**  
Jumper; from 1 to 4; insulated; light gray



**Item No.: 2002-435**  
Jumper; from 1 to 5; insulated; light gray



**Item No.: 2002-436**  
Jumper; from 1 to 6; insulated; light gray



**Item No.: 2002-437**  
Jumper; from 1 to 7; insulated; light gray



**Item No.: 2002-438**  
Jumper; from 1 to 8; insulated; light gray



**Item No.: 2002-439**  
Jumper; from 1 to 9; insulated; light gray



**Item No.: 2002-480**  
Staggered jumper; 10-way; insulated; light gray



**Item No.: 2002-481**  
Staggered jumper; 11-way; insulated; light gray



**Item No.: 2002-482**  
Staggered jumper; 12-way; insulated; light gray



**Item No.: 2002-473/011-000**  
Staggered jumper; 2-way; from 1 to 3; insulated; light gray



**Item No.: 2002-472**  
Staggered jumper; 3-way; insulated; light gray



**Item No.: 2002-473**  
Staggered jumper; 3-way; insulated; light gray



**Item No.: 2002-475/011-000**  
Staggered jumper; 3-way; insulated; light gray



**Item No.: 2002-474**  
Staggered jumper; 4-way; insulated; light gray



**Item No.: 2002-475**  
Staggered jumper; 5-way; insulated; light gray



**Item No.: 2002-476**  
Staggered jumper; 6-way; insulated; light gray



**Item No.: 2002-477**  
Staggered jumper; 7-way; insulated; light gray



**Item No.: 2002-478**  
Staggered jumper; 8-way; insulated; light gray



**Item No.: 2002-479**  
Staggered jumper; 9-way; insulated; light gray



**Item No.: 2002-477/011-000**  
Staggered jumper; insulated; light gray



**Item No.: 2002-479/011-000**  
Staggered jumper; insulated; light gray



**Item No.: 2002-481/011-000**  
Staggered jumper; insulated; light gray



**Item No.: 2002-405/011-000**  
Star point jumper; 3-way; insulated; light gray



**Item No.: 2006-499**  
Step-down jumper; from 2006/2004 to 2004/2002/2001 series; from 2206/2204 to 2204/2202/2201 series; insulated; light gray



**Item No.: 2016-499**  
Step-down jumper; from 2016/2010 to 2010/2006/2004/2002 series; from 2216/2210 to 2210/2206/2204/2202 series; insulated; light gray



**Item No.: 210-103**  
Wire commoning chain; insulated; black



**Item No.: 210-123**  
Wire commoning chain; insulated; blue

## 1.2.7 Marking

## 1.2.7.1 Group marker carrier



**Item No.: 2009-191**  
Group marker carrier; gray



**Item No.: 2009-192**  
Group marker carrier; gray



**Item No.: 2009-193**  
Group marker carrier; gray

## 1.2.7.2 Marker



**Item No.: 2009-145/000-006**  
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; blue



**Item No.: 2009-145/000-007**  
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; gray



**Item No.: 2009-145/000-023**  
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; green



**Item No.: 2009-145/000-012**  
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; orange



**Item No.: 2009-145/000-005**  
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; red



**Item No.: 2009-145/000-024**  
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; violet



**Item No.: 2009-145**  
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white



**Item No.: 2009-145/000-002**  
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; yellow



1.2.7.2 Marker



**Item No.: 248-501/000-006**  
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; blue



**Item No.: 248-501/000-007**  
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; gray



**Item No.: 248-501/000-023**  
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; green



**Item No.: 248-501/000-017**  
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; light green



**Item No.: 248-501/000-012**  
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; orange



**Item No.: 248-501/000-005**  
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; red



**Item No.: 248-501/000-024**  
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; violet



**Item No.: 248-501**  
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; white



**Item No.: 248-501/000-002**  
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; yellow



**Item No.: 793-5501/000-006**  
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; blue



**Item No.: 793-5501/000-014**  
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; brown



**Item No.: 793-5501/000-007**  
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; gray



**Item No.: 793-5501/000-023**  
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; green



**Item No.: 793-5501/000-017**  
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; light green



**Item No.: 793-5501/000-012**  
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; orange



**Item No.: 793-5501/000-005**  
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; red



**Item No.: 793-5501/000-024**  
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; violet



**Item No.: 793-5501**  
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; white



**Item No.: 793-5501/000-002**  
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; yellow



**Item No.: 2009-115/000-006**  
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; blue



**Item No.: 2009-115/000-007**  
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; gray



**Item No.: 2009-115/000-023**  
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; green



**Item No.: 2009-115/000-017**  
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; light green



**Item No.: 2009-115/000-012**  
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; orange



**Item No.: 2009-115/000-005**  
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; red



**Item No.: 2009-115/000-024**  
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; violet



**Item No.: 2009-115**  
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white



**Item No.: 2009-115/000-002**  
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; yellow

1.2.7.3 Marker carrier



**Item No.: 2002-161**  
Adaptor; gray



**Item No.: 2009-198**  
Adaptor; gray

1.2.7.4 Marking strip



**Item No.: 2009-110**  
Marking strips; for Smart Printer; on reel; not stretchable; plain; snap-on type; white

1.2.8 Plug

1.2.8.1 Component module with diode



**Item No.: 2002-880/1000-411**  
Component plug; 2-pole; with diode 1N4007; 10.4 mm wide; Operating temperature 85°C max.; gray

1.2.8.2 Component module with LED



**Item No.: 2002-880/1000-541**  
Component plug; 2-pole; LED (red); 10.4 mm wide; Operating temperature 85°C max.; gray



**Item No.: 2002-880/1000-836**  
Component plug; 2-pole; LED (red); 10.4 mm wide; Operating temperature 85°C max.; gray



**Item No.: 2002-880/1000-542**  
Component plug; 2-pole; LED (red); 10.4 mm wide; Operating temperature 85°C max.; multicoloured

1.2.8.3 Empty component plug housing



**Item No.: 2002-880**  
Empty component plug housing; 10.4 mm wide; 2-pole; Type 4; gray

1.2.9 Push-in type wire jumper

1.2.9.1 Jumper



**Item No.: 2009-414**  
Push-in type wire jumper; 1.5 mm<sup>2</sup>; insulated; 110 mm long; black



**Item No.: 2009-414/000-005**  
Push-in type wire jumper; 1.5 mm<sup>2</sup>; insulated; 110 mm long; black



**Item No.: 2009-416**  
Push-in type wire jumper; 1.5 mm<sup>2</sup>; insulated; 250 mm long; black



**Item No.: 2009-414/000-006**  
Push-in type wire jumper; insulated; 110 mm long; black



**Item No.: 2009-412**  
Push-in type wire jumper; insulated; 60 mm long; black

1.2.10 Screwless end stop

1.2.10.1 Mounting accessories



**Item No.: 249-117**  
Screwless end stop; 10 mm wide; for DIN-rail 35 x 15 and 35 x 7.5; gray



**Item No.: 249-116**  
Screwless end stop; 6 mm wide; for DIN-rail 35 x 15 and 35 x 7.5; gray

1.2.11 Test and measurement

1.2.11.1 Testing accessories

|                                                                                                                                |                                                                                                                        |                                                                                                                   |                                                                                                                                |
|--------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                |                                                                                                                        |                                                                                                                   |                                                                                                                                |
| <b>Item No.: 2002-560</b><br>Modular TOPJOB®S connector; modular; for jumper contact slot; 10-pole; 2,50 mm²; gray             | <b>Item No.: 2002-511</b><br>Modular TOPJOB®S connector; modular; for jumper contact slot; 1-pole; 2,50 mm²; gray      | <b>Item No.: 2002-552</b><br>Modular TOPJOB®S connector; modular; for jumper contact slot; 2-pole; 2,50 mm²; gray | <b>Item No.: 2002-553</b><br>Modular TOPJOB®S connector; modular; for jumper contact slot; 3-pole; 2,50 mm²; gray              |
|                                                                                                                                |                                                                                                                        |                                                                                                                   |                                                                                                                                |
| <b>Item No.: 2002-554</b><br>Modular TOPJOB®S connector; modular; for jumper contact slot; 4-pole; 2,50 mm²; gray              | <b>Item No.: 2002-555</b><br>Modular TOPJOB®S connector; modular; for jumper contact slot; 5-pole; 2,50 mm²; gray      | <b>Item No.: 2002-556</b><br>Modular TOPJOB®S connector; modular; for jumper contact slot; 6-pole; 2,50 mm²; gray | <b>Item No.: 2002-557</b><br>Modular TOPJOB®S connector; modular; for jumper contact slot; 7-pole; 2,50 mm²; gray              |
|                                                                                                                                |                                                                                                                        |                                                                                                                   |                                                                                                                                |
| <b>Item No.: 2002-558</b><br>Modular TOPJOB®S connector; modular; for jumper contact slot; 8-pole; 2,50 mm²; gray              | <b>Item No.: 2002-559</b><br>Modular TOPJOB®S connector; modular; for jumper contact slot; 9-pole; 2,50 mm²; gray      | <b>Item No.: 2002-549</b><br>Spacer module; modular; e.g., for bridging commoned terminal blocks; gray            | <b>Item No.: 2009-174</b><br>Test plug adapter; for 4 mm Ø test plugs; for testing TOPJOB®S rail-mounted terminal blocks; gray |
|                                                                                                                                |                                                                                                                        |                                                                                                                   |                                                                                                                                |
| <b>Item No.: 2009-182</b><br>Testing tap; for max. 2.5 mm²; tool-free connection for individual test wires 0.08 - 2.5 mm; gray | <b>Item No.: 2002-649</b><br>TOPJOB®S L-type spacer module; modular; e.g., for bridging commoned terminal blocks; gray |                                                                                                                   |                                                                                                                                |

1.2.12 Tool

1.2.12.1 Operating tool

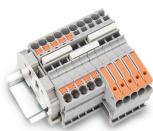
|                                                                                                                                 |                                                                                                                  |
|---------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                 |                                                                                                                  |
| <b>Item No.: 210-658</b><br>Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; angled; short; multicoloured | <b>Item No.: 210-720</b><br>Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured |

Installation Notes

Conductor termination

|                                        |                                                      |                                                     |                                             |
|----------------------------------------|------------------------------------------------------|-----------------------------------------------------|---------------------------------------------|
|                                        |                                                      |                                                     |                                             |
| <b>All conductor types at a glance</b> | Push-in termination of solid and ferruled conductors | Insert fine-stranded conductors via operating tool. | Removing all conductors via operating tool. |

Commoning



Insert a push-in type jumper bar and push down until it hits the backstop.



Commoning with step-down jumpers.



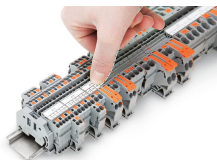
**Step-down jumper (2006-499)** commons 6/4 mm<sup>2</sup> (10/12 AWG) terminal blocks (2206/2204 Series) with 4/2.5/1.5 mm<sup>2</sup> (AWG 12/14/16) terminal blocks (2204/2202/2201 Series).

Testing

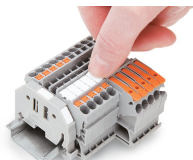


Testing with a 2 mm Ø test plug (max. 42 V).

Marking



Snapping a marking strip into a marker slot.



Snapping a marking strip into the marker slot.