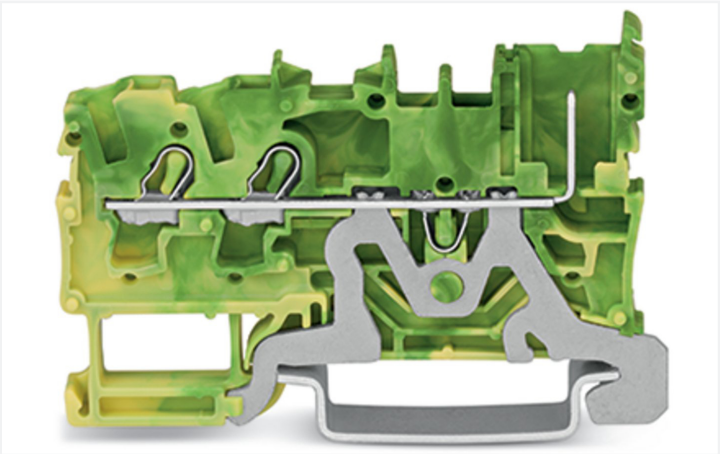
# Data Sheet | Item Number: 2022-1307

2-conductor/1-pin ground carrier terminal block; 2.5 mm²; for DIN-rail 35 x 15 and 35 x 7.5; Push-in CAGE CLAMP®; 2,50 mm²; green-yellow

https://www.wago.com/2022-1307



Color: green-yellow

2-conductor/1-pin ground carrier terminal block, 2022 Series, Push-in CAGE CLAMP®

2-conductor/1-pin ground carrier terminal block (item number 2022-1307) simplifies electrical installations. Ensure that the strip lengths are between 10 and 12 mm when connecting conductors to 2-conductor/1-pin ground carrier terminal block. Pluggable rail-mount terminal blocks are mainly used in switchgear units and control systems (e.g., in railroad technology). They are essentially a combination of rail-mount terminal blocks and pluggable connectors. You can also pre-assemble installations thanks to the variable wiring system. This saves both time and money during manufacture, installation, operation, and maintenance. This product features conductor terminals and utilizes Push-in CAGE CLAMP®. Push-in CAGE CLAMP® technology provides a universal connection solution for all conductor types. It allows both solid and fine-stranded conductors with ferrules to be inserted directly into the clamping point without the need for tools. Depending on the conductor type, 2-conductor/1-pin ground carrier terminal block is suitable for conductor cross sections ranging from 0.25 mm² to 4 mm².

An operating tool is used to operate this pluggable rail-mount terminal block.

## Notes

| | |
|---|---|
| Safety Information | A separator plate (Item No. 209-191) or a 10 mm end stop (Item No. 249-117) must be placed at the end of a WAGO X-COM®S-SYSTEM terminal strip. |

## Electrical data

| Ratings per | IEC/EN 60947-7-2 | | |
|---|---|---|---|
| Overvoltage category | III | III | II |
| Pollution degree | 3 | 2 | 2 |
| Nominal voltage | - | - | - |
| Rated impulse withstand voltage | - | - | - |
| Rated current | - | - | - |

| General information | |
|---|---|
| Wiring direction | Front-entry wiring |

## Connection Data

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

### Connection 1

| | |
|---|---|
| Connection technology | Push-in CAGE CLAMP® |
| Actuation type | Operating tool |
| Connectable conductor materials | Copper |
| Nominal cross-section | 2.5 mm² |
| Solid conductor | 0.25 … 4 mm² / 22 … 12 AWG |
| Solid conductor; push-in termination | 1 … 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 | 61.8 mm / 2.433 inches |
| Depth from upper-edge of DIN-rail | 36.4 mm / 1.433 inches |

## Mechanical data

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

## Material data

| | |
|---|---|
| Note (material data) | Information on material specifications can be found here |
| Color | green-yellow |
| Material group | I |
| Insulation material (main housing) | Polyamide (PA66) |
| Flammability class per UL94 | V0 |
| Fire load | 0.123 MJ |
| Weight | 9.2 g |

## Environmental requirements

| | |
|---|---|
| Processing temperature | -35 … +85 °C |
| Continuous operating temperature | -60 … +105 °C |


Continued on next page

## Commercial data

| | |
|---|---|
| PU (SPU) | 100 pcs |
| Packaging type | Box |
| Country of origin | CN |
| GTIN | 4050821145165 |
| Customs tariff number | 85366990990 |

## Product Classification

| | |
|---|---|
| UNSPSC | 39121410 |
| eCl@ss 10.0 | 27-14-11-41 |
| eCl@ss 9.0 | 27-14-11-41 |
| ETIM 9.0 | EC000901 |
| ETIM 10.0 | EC000901 |
| ECCN | NO US CLASSIFICATION |

## Environmental Product Compliance

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

## Approvals / Certificates

### General approvals

| Approval | Standard | Certificate Name |
|---|---|---|
| CCA<br>DEKRA Certification B.V. | EN 60947 | NTR CCA NL-7864 |
| CSA<br>CSA Group | C22.2 No. 158 | 2437422 |
| DEKRA<br>DEKRA Certification B.V. | EN 60947 | 71-145809 |
| KEMA/KEUR<br>DEKRA Certification B.V. | EN 60947 | 71-116567 |
| UL<br>Underwriters Laboratories Inc. | UL 1059 | E45172 |

### Declarations of conformity and manufacturer's declarations

| Approval | Standard | Certificate Name |
|---|---|---|
| EU-Declaration of Conformity<br>WAGO GmbH & Co. KG | - | - |
| UK-Declaration of Conformity<br>WAGO GmbH & Co. KG | - | - |

### Approvals for marine applications

| Approval | Standard | Certificate Name |
|---|---|---|
| ABS<br>American Bureau of Shipping | EN 60947 | 24-0152298-PDA |
| DNV GL<br>Det Norske Veritas, Germanischer Lloyd | - | TAE00001V2 |
| PRS<br>Polski Rejestr Statków | - | TE/1094/880590/23 |

## Downloads

### Environmental Product Compliance

**Compliance Search**

Environmental Product Compliance 2022-1307

### Documentation

**Bid Text**

| | | |
|---|---|---|
| 2022-1307 | 19.02.2019 | xml 3.98 KB |
| 2022-1307 | 14.05.2019 | docx 15.30 KB |

### CAD/CAE-Data

**CAD data**

2D/3D Models 2022-1307

**CAE data**

EPLAN Data Portal 2022-1307

WSCAD Universe 2022-1307

ZUKEN Portal 2022-1307

## 1 Compatible Products

### 1.1 System counterpart

#### 1.1.1 Female connector/socket



Item No.: 2022-101
1-conductor female connector; Push-in CAGE CLAMP®; 4 mm²; Pin spacing 5.2 mm; 1-pole; 4,00 mm²; gray



Item No.: 2022-101/000-016
1-conductor female connector; Push-in CAGE CLAMP®; 4 mm²; Pin spacing 5.2 mm; 1-pole; 4,00 mm²; green-yellow

### 1.2 Required Accessories

#### 1.2.1 End plate

##### 1.2.1.1 End plate



Item No.: 2022-1391
End and intermediate plate; 1 mm thick; gray



Item No.: 2022-1392
End and intermediate plate; 1 mm thick; orange


Continued on next page

## 1.3 Optional Accessories

### 1.3.1 Coding

#### 1.3.1.1 Coding



Item No.: 2022-100
Carrier with 6 coding pins; for coding of female plugs; orange

### 1.3.2 DIN-rail

#### 1.3.2.1 Mounting accessories



Item No.: 210-196
Aluminum carrier rail; 35 x 8.2 mm; 1.6 mm thick; 2 m long; unslotted; similar to EN 60715; silver-colored



Item No.: 210-198
Copper carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715; copper-colored



Item No.: 210-197
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; similar to EN 60715; silver-colored



Item No.: 210-114
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; similar to EN 60715; silver-colored



Item No.: 210-118
Steel carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715; silver-colored



Item No.: 210-115
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; according to EN 60715; "Hole width 18 mm; silver-colored



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.: 210-113
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; according to EN 60715; silver-colored

### 1.3.3 Ferrule

#### 1.3.3.1 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


Continued on next page

## 1.3.4 Insulation stop

### 1.3.4.1 Insulation stop



Item No.: 2002-171
Insulation stop; 0.25 - 0.5 mm²; 5 pieces/ strip; light gray



Item No.: 2002-172
Insulation stop; 0.75 - 1 mm²; 5 pieces/strip; dark gray

## 1.3.5 Jumper

### 1.3.5.1 Jumper



Item No.: 2002-400
Continuous jumper; 2-way; insulated; light gray



Item No.: 2002-413
Continuous jumper; 3-way; insulated; light gray



Item No.: 2002-415
Continuous jumper; 5-way; insulated; light gray



Item No.: 2002-423/000-006
Continuous jumper; from 1 to 3; insulated; blue



Item No.: 2002-423
Continuous jumper; from 1 to 3; insulated; light gray



Item No.: 2002-423/000-005
Continuous jumper; from 1 to 3; insulated; red



Item No.: 2002-424/000-006
Continuous jumper; from 1 to 4; insulated; blue



Item No.: 2002-424
Continuous jumper; from 1 to 4; insulated; light gray



Item No.: 2002-424/000-005
Continuous jumper; from 1 to 4; insulated; red



Item No.: 2002-406/020-000
Delta jumper; insulated; light gray



Item No.: 2002-410/000-006
Jumper; 10-way; insulated; blue



Item No.: 2002-410
Jumper; 10-way; insulated; light gray



Item No.: 2002-410/000-005
Jumper; 10-way; insulated; red



Item No.: 2002-402/000-006
Jumper; 2-way; insulated; blue



Item No.: 2002-402
Jumper; 2-way; insulated; light gray



Item No.: 2002-402/000-005
Jumper; 2-way; insulated; red



Item No.: 2002-403/000-006
Jumper; 3-way; insulated; blue



Item No.: 2002-403
Jumper; 3-way; insulated; light gray



Item No.: 2002-403/000-005
Jumper; 3-way; insulated; red



Item No.: 2002-404/000-006
Jumper; 4-way; insulated; blue



Item No.: 2002-404
Jumper; 4-way; insulated; light gray



Item No.: 2002-404/000-005
Jumper; 4-way; insulated; red



Item No.: 2002-405/000-006
Jumper; 5-way; insulated; blue



Item No.: 2002-405
Jumper; 5-way; insulated; light gray



Item No.: 2002-405/000-005
Jumper; 5-way; insulated; red



Item No.: 2002-406/000-006
Jumper; 6-way; insulated; blue



Item No.: 2002-406
Jumper; 6-way; insulated; light gray



Item No.: 2002-406/000-005
Jumper; 6-way; insulated; red



Item No.: 2002-407/000-006
Jumper; 7-way; insulated; blue



Item No.: 2002-407
Jumper; 7-way; insulated; light gray



Item No.: 2002-407/000-005
Jumper; 7-way; insulated; red



Item No.: 2002-408/000-006
Jumper; 8-way; insulated; blue



Item No.: 2002-408
Jumper; 8-way; insulated; light gray



Item No.: 2002-408/000-005
Jumper; 8-way; insulated; red



Item No.: 2002-409/000-006
Jumper; 9-way; insulated; blue



Item No.: 2002-409
Jumper; 9-way; insulated; light gray



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


Continued on next page

### 1.3.5.1 Jumper



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; 2-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.: 210-103
Wire commoning chain; 0.5 mm²; insulated; black



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

## 1.3.6 Marking

### 1.3.6.1 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

### 1.3.6.2 Marker



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.: 248-501
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; white



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.: 2009-115
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white

### 1.3.6.3 Marker carrier



Item No.: 2002-161
Adaptor; gray



Item No.: 2009-198
Adaptor; gray

### 1.3.6.4 Marking strip



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


Continued on next page

## 1.3.7 Protective warning marker

### 1.3.7.1 Cover



Item No.: 2002-115
Protective warning marker; for 5 terminal blocks; with high-voltage symbol, black; yellow

## 1.3.8 Push-in type wire jumper

### 1.3.8.1 Jumper



Item No.: 2009-414
Push-in type wire jumper; 1.5 mm²; insulated; 110 mm long; black



Item No.: 2009-414/000-005
Push-in type wire jumper; 1.5 mm²; insulated; 110 mm long; black



Item No.: 2009-416
Push-in type wire jumper; 1.5 mm²; 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

## 1.3.9 Screwless end stop

### 1.3.9.1 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

## 1.3.10 Test and measurement

### 1.3.10.1 Testing accessories



Item No.: 2002-560
Modular TOPJOB®S connector; modular; for jumper contact slot; 10-pole; gray



Item No.: 2002-511
Modular TOPJOB®S connector; modular; for jumper contact slot; 1-pole; gray



Item No.: 2002-552
Modular TOPJOB®S connector; modular; for jumper contact slot; 2-pole; gray



Item No.: 2002-553
Modular TOPJOB®S connector; modular; for jumper contact slot; 3-pole; gray



Item No.: 2002-554
Modular TOPJOB®S connector; modular; for jumper contact slot; 4-pole; gray



Item No.: 2002-555
Modular TOPJOB®S connector; modular; for jumper contact slot; 5-pole; gray



Item No.: 2002-556
Modular TOPJOB®S connector; modular; for jumper contact slot; 6-pole; gray



Item No.: 2002-557
Modular TOPJOB®S connector; modular; for jumper contact slot; 7-pole; gray



Item No.: 2002-558
Modular TOPJOB®S connector; modular; for jumper contact slot; 8-pole; gray



Item No.: 2002-559
Modular TOPJOB®S connector; modular; for jumper contact slot; 9-pole; gray



Item No.: 2002-549
Spacer module; modular; e.g., for bridging commoned terminal blocks; gray



Item No.: 2009-174
Test plug adapter; for 4 mm Ø test plugs; for testing TOPJOB®S rail-mounted terminal blocks; gray



Item No.: 2009-182
Testing tap; for max. 2.5 mm²; tool-free connection for individual test wires 0.08 - 2.5 mm; gray



Item No.: 859-500
WAGO Test pin; 1 mm Ø; 30 V AC / 60 V DC; CAT0; 1 A; 10 mm uninsulated; Test lead for soldering up to 0,5mm²


Continued on next page

### 1.3.11 Tool

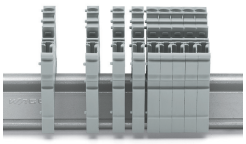
#### 1.3.11.1 Operating tool



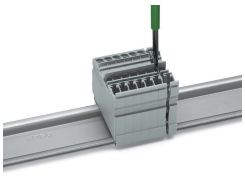
Item No.: 210-720
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured

## Installation Notes

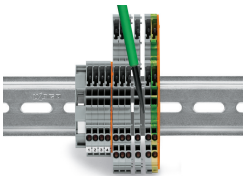
### Installation



Snap individual carrier terminal blocks onto the DIN-rail and slide together.

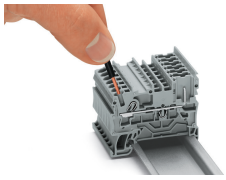


Open the assembly by laterally sliding a block via operating tool (3.5 x 0.5 mm blade).



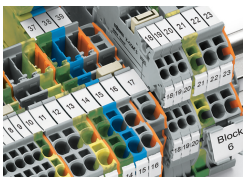
Separate terminal block assembly and slide individual terminal blocks laterally using an operating tool.

### Conductor termination

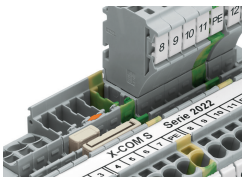


Push-in CAGE CLAMP® enables solid conductors to be connected by simply pushing them into the unit.

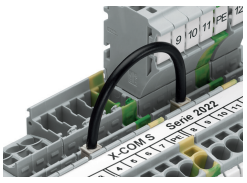
### Commoning



Commoning X-COM®S-SYSTEM Terminal Blocks using jumpers for TOPJOB® S Terminal Blocks. An end plate provides connection to TOPJOB® S Terminal Blocks. 2020 and 2022 Series Terminal Blocks are combinable. Jumper slots are on the same level for both series.

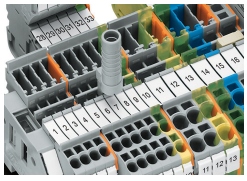



Pairing push-in comb style jumpers.




Commoning with push-in type wire jumper.

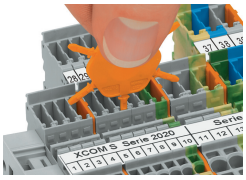
### Testing



Test plug adapter (Item No. 2009-174) for 4 mm test plugs or banana plugs – also suitable for X-COM®S-SYSTEM-MINI Terminal Blocks.


Continued on next page

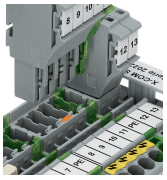
## Coding



Insert coding pin into the corresponding slot and twist it off.

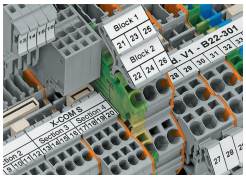


Coding a female plug: remove coding finger using a suitable tool.

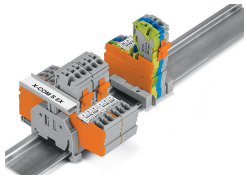


Insert a coding pin (Item No. 2022-100) into the corresponding location of the carrier terminal block.

## Marking

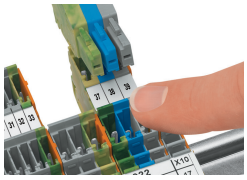


Clear marking via large marking area



Group marking with height-adjustable group marker carrier (Item No. 2009-163)

## Security



Carrier terminal blocks and female plugs are touch-proof.