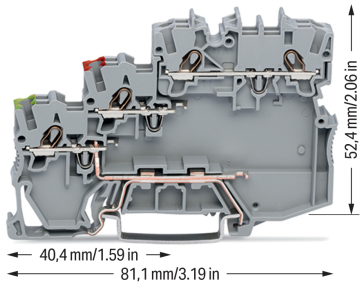
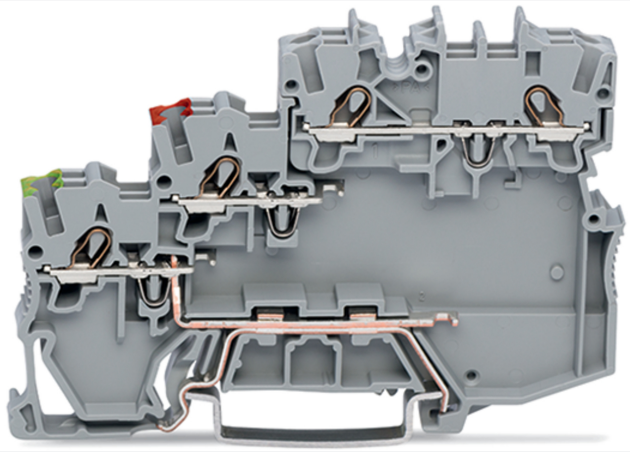
# Data Sheet | Item Number: 2000-5317/101-000

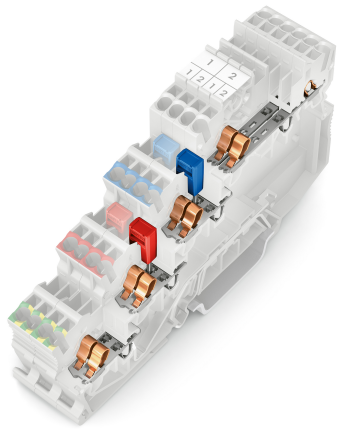
3-conductor actuator supply terminal block; for NPN-(low-side) switching actuators; with ground contact; with colored conductor entries; 1 mm²; Push-in CAGE CLAMP®; 1,00 mm²; gray

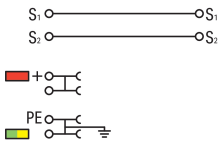
https://www.wago.com/2000-5317/101-000



Color: gray






Similar to illustration

Actuator terminal block, 2000 Series, gray

This actuator terminal block (item number 2000-5317/101-000) simplifies electrical installations. Ensure that the strip lengths are between 9 and 11 mm when connecting conductors to this actuator terminal block. This product features conductor terminals and utilizes Push-in CAGE CLAMP®. Push-in CAGE CLAMP® connection technology is ideal for connecting all conductor types. Both solid and fine-stranded conductors with ferrules can be pushed in without the need for tools—all thanks to its pluggable design. This actuator terminal block is suitable for conductor cross sections ranging from 0.14 mm² to 1.5 mm².

## Electrical data

| Ratings per | IEC/EN 60947-7-1 | | |
|---|---|---|---|
| Overvoltage category | III | III | II |
| Pollution degree | 3 | 2 | 2 |
| Nominal voltage | 250 V | - | - |
| Rated impulse withstand voltage | 4 kV | - | - |
| Rated current | 13.5 A | - | - |

| Approvals per | UL 1059 | | |
|---|---|---|---|
| Use group | B | C | D |
| Rated voltage | 300 V | - | 300 V |
| Rated current | 15 A | - | 15 A |

| Approvals per | CSA 22.2 No 158 | | |
|---|---|---|---|
| Use group | B | C | D |
| Rated voltage | - | 300 V | - |
| Rated current | - | 10 A | - |

| Power Loss | |
|---|---|
| Power loss, per pole (potential) | 0.4338 W |
| Rated current $I_N$ for power loss specification | 13.5 A |
| Resistance value for specified, current-dependent power loss | 0.00238 Ω |

| General information | |
|---|---|
| LED (switching) for | NPN |
| Wiring direction | Front-entry wiring |

## Connection Data

| | |
|---|---|
| Clamping units | 8 |
| Total number of potentials | 4 |
| Number of levels | 3 |
| Number of jumper slots | 4 |

| Connection 1 | |
|---|---|
| Connection technology | Push-in CAGE CLAMP® |
| Actuation type | Operating tool |
| Connectable conductor materials | Copper |
| Nominal cross-section | 1 mm² |
| Solid conductor | 0.14 … 1.5 mm² / 24 … 16 AWG |
| Solid conductor; push-in termination | 0.5 … 1.5 mm² / 20 … 16 AWG |
| Fine-stranded conductor | 0.14 … 1.5 mm² / 24 … 16 AWG |
| Fine-stranded conductor; with insulated ferrule | 0.14 … 0.75 mm² / 24 … 18 AWG |
| Fine-stranded conductor; with ferrule; push-in termination | 0.5 … 0.75 mm² / 20 … 18 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 | 9 … 11 mm / 0.35 … 0.43 inches |
| Wiring direction | Front-entry wiring |

## Physical data

| | |
|---|---|
| Width | 7 mm / 0.276 inches |
| Height | 81.1 mm / 3.193 inches |
| Depth from upper-edge of DIN-rail | 52.4 mm / 2.063 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 | gray |
| Material group | I |
| Insulation material (main housing) | Polyamide (PA66) |
| Flammability class per UL94 | V0 |
| Fire load | 0.284 MJ |
| Weight | 17.4 g |


Continued on next page

## Environmental requirements

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

## Environmental Testing

| | |
|---|---|
| Test specification: Railway applications – Rolling stock – Electronic equipment | DIN EN 50155 (VDE 0115-200):2022-06 |
| Test procedure: Railway applications – Rolling stock equipment – Vibration and shock tests | DIN EN 61373 (VDE 0115-0106):2011-04 |
| Spectrum/Mounting location | Service life test, Category 1, Class A/B |
| Functional test with noise-like oscillations | Test passed according to Section 8 of the standard |
| Frequency | $f_1$ = 5 Hz to $f_2$ = 150 Hz |
| Acceleration | 0.101g (highest test level used for all axes) |
| Test duration per axis | 10 min. |
| Test directions | X, Y and Z axes |
| Monitoring of contact faults and interruptions | Passed |
| Voltage drop measurement before and after each axis | Passed |
| Simulated service life test through increased levels of noise-like oscillations | Test passed according to Section 9 of the standard |
| Frequency | $f_1$ = 5 Hz to $f_2$ = 150 Hz |
| Acceleration | 0.572g (highest test level used for all axes) |
| Test duration per axis | 5 h |
| Test directions | X, Y and Z axes |
| Extended testing: Monitoring of contact faults and interruptions | Passed |
| Extended testing: Voltage drop measurement before and after each axis | Passed |
| Shock test | Test passed according to Section 10 of the standard |
| Shock pulse form | Half sine |
| Acceleration | 5g (highest test level used for all axes) |
| Shock duration | 30 ms |
| Number of shocks (per axis) | 3 pos. und 3 neg. |
| Test directions | X, Y and Z axes |
| Extended testing: Monitoring of contact faults and interruptions | Passed |
| Extended testing: Voltage drop measurement before and after each axis | Passed |
| Vibration and shock stress for rolling stock equipment | Passed |

## Commercial data

| | |
|---|---|
| PU (SPU) | 50 pcs |
| Packaging type | Box |
| Country of origin | DE |
| GTIN | 4055143408172 |
| Customs tariff number | 85369010000 |


Continued on next page

## Product Classification

| | |
|---|---|
| UNSPSC | 39121410 |
| eCl@ss 10.0 | 27-14-11-28 |
| eCl@ss 9.0 | 27-14-11-28 |
| ETIM 9.0 | EC000900 |
| ETIM 10.0 | EC000900 |
| 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 NL 7962 |
| CSA<br>DEKRA Certification B.V. | C22.2 | 2130762 |
| KEMA/KEUR<br>DEKRA Certification B.V. | EN 60947 | 71-125928 |
| 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 | - | - |
| Railway<br>WAGO GmbH & Co. KG | - | Railway Ready |
| UK-Declaration of Conformity<br>WAGO GmbH & Co. KG | - | - |

## Downloads

### Environmental Product Compliance

**Compliance Search**

Environmental Product Compliance 2000-5317/101-000

### Documentation

**Bid Text**

| | | | |
|---|---|---|---|
| 2000-5317/101-000 | 07.08.2018 | docx<br>15.16 KB | |
| 2000-5317/101-000 | 19.02.2019 | xml<br>3.98 KB | |


Continued on next page

## CAD/CAE-Data

### CAD data

2D/3D Models
2000-5317/101-000

### CAE data

EPLAN Data Portal
2000-5317/101-000

ZUKEN Portal
2000-5317/101-000

# 1 Compatible Products

## 1.1 Required Accessories

### 1.1.1 End plate

#### 1.1.1.1 End plate



Item No.: 2000-5391
End and intermediate plate; 1 mm thick; for 3-conductor terminal blocks; gray

## 1.2 Optional Accessories

### 1.2.1 DIN-rail

#### 1.2.1.1 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

### 1.2.2 Ferrule

#### 1.2.2.1 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.: 216-243
Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red


Continued on next page

## 1.2.3 Installation

### 1.2.3.1 Cover



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

### 1.2.3.2 Cover carrier



Item No.: 709-169
Cover carrier; Type 3; incl. fixing/retaining screws and knurled nut; suitable for 279 to 282 and 880 Series rail-mounted terminal blocks; suitable for 264 Series miniature rail-mounted terminal blocks; suitable for 270 Series sensor and actuator terminal blocks; gray

## 1.2.4 Jumper

### 1.2.4.1 Jumper



Item No.: 2000-406/020-000
Delta jumper; insulated; light gray



Item No.: 2000-410/000-006
Jumper; 10-way; insulated; blue



Item No.: 2000-410
Jumper; 10-way; insulated; light gray



Item No.: 2000-410/000-005
Jumper; 10-way; insulated; red



Item No.: 2000-402/000-006
Jumper; 2-way; insulated; blue



Item No.: 2000-402
Jumper; 2-way; insulated; light gray



Item No.: 2000-402/000-005
Jumper; 2-way; insulated; red



Item No.: 2000-402/000-018
Jumper; 2-way; insulated; yellow-green



Item No.: 2000-403/000-006
Jumper; 3-way; insulated; blue



Item No.: 2000-403
Jumper; 3-way; insulated; light gray



Item No.: 2000-403/000-005
Jumper; 3-way; insulated; red



Item No.: 2000-404/000-006
Jumper; 4-way; insulated; blue



Item No.: 2000-404
Jumper; 4-way; insulated; light gray



Item No.: 2000-404/000-005
Jumper; 4-way; insulated; red



Item No.: 2000-405/000-006
Jumper; 5-way; insulated; blue



Item No.: 2000-405
Jumper; 5-way; insulated; light gray



Item No.: 2000-405/000-005
Jumper; 5-way; insulated; red



Item No.: 2000-406/000-006
Jumper; 6-way; insulated; blue



Item No.: 2000-406
Jumper; 6-way; insulated; light gray



Item No.: 2000-406/000-005
Jumper; 6-way; insulated; red



Item No.: 2000-407/000-006
Jumper; 7-way; insulated; blue



Item No.: 2000-407
Jumper; 7-way; insulated; light gray



Item No.: 2000-407/000-005
Jumper; 7-way; insulated; red



Item No.: 2000-408/000-006
Jumper; 8-way; insulated; blue



Item No.: 2000-408
Jumper; 8-way; insulated; light gray



Item No.: 2000-408/000-005
Jumper; 8-way; insulated; red



Item No.: 2000-409/000-006
Jumper; 9-way; insulated; blue



Item No.: 2000-409
Jumper; 9-way; insulated; light gray



Item No.: 2000-409/000-005
Jumper; 9-way; insulated; red



Item No.: 2000-440
Jumper; from 1 to 10; insulated; light gray



Item No.: 2000-433/000-006
Jumper; from 1 to 3; insulated; blue



Item No.: 2000-433
Jumper; from 1 to 3; insulated; light gray



Item No.: 2000-433/000-005
Jumper; from 1 to 3; insulated; red



Item No.: 2000-434
Jumper; from 1 to 4; insulated; light gray



Item No.: 2000-435
Jumper; from 1 to 5; insulated; light gray



Item No.: 2000-436
Jumper; from 1 to 6; insulated; light gray


Continued on next page

### 1.2.4.1 Jumper



Item No.: 2000-437
Jumper; from 1 to 7; insulated; light gray



Item No.: 2000-438
Jumper; from 1 to 8; insulated; light gray



Item No.: 2000-439
Jumper; from 1 to 9; insulated; light gray



Item No.: 2000-405/011-000
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

## 1.2.5 Marking

### 1.2.5.1 Group marker carrier



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

### 1.2.5.2 Marker



Item No.: 793-3501
WMB marking card; as card; plain; snap-on type; white



Item No.: 2009-113/000-006
WMB-Inline; for Smart Printer; 2300 pieces on roll; plain; snap-on type; blue



Item No.: 2009-113/000-007
WMB-Inline; for Smart Printer; 2300 pieces on roll; plain; snap-on type; gray



Item No.: 2009-113/000-023
WMB-Inline; for Smart Printer; 2300 pieces on roll; plain; snap-on type; green



Item No.: 2009-113/000-017
WMB-Inline; for Smart Printer; 2300 pieces on roll; plain; snap-on type; light green



Item No.: 2009-113/000-012
WMB-Inline; for Smart Printer; 2300 pieces on roll; plain; snap-on type; orange



Item No.: 2009-113/000-005
WMB-Inline; for Smart Printer; 2300 pieces on roll; plain; snap-on type; red



Item No.: 2009-113/000-024
WMB-Inline; for Smart Printer; 2300 pieces on roll; plain; snap-on type; violet



Item No.: 2009-113
WMB-Inline; for Smart Printer; 2300 pieces on roll; plain; snap-on type; white



Item No.: 2009-113/000-002
WMB-Inline; for Smart Printer; 2300 pieces on roll; plain; snap-on type; yellow

### 1.2.5.3 Marker carrier



Item No.: 2000-121
Adaptor; gray

### 1.2.5.4 Marking strip



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


Continued on next page

## 1.2.6 Protective warning marker

### 1.2.6.1 Cover



Item No.: 2000-115
Protective warning marker; for 5 terminal blocks; with high-voltage symbol, black; yellow

## 1.2.7 Push-in type wire jumper

### 1.2.7.1 Jumper



Item No.: 2009-404
Push-in type wire jumper; 0.75 mm²; insulated; 110 mm long; gray



Item No.: 2009-406
Push-in type wire jumper; 0.75 mm²; insulated; 250 mm long; gray



Item No.: 2009-402
Push-in type wire jumper; 0.75 mm²; insulated; 60 mm long; gray

## 1.2.8 Screwless end stop

### 1.2.8.1 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

## 1.2.9 Test and measurement

### 1.2.9.1 Testing accessories



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

## 1.2.10 Tool

### 1.2.10.1 Operating tool



Item No.: 210-719
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft



Item No.: 210-648
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft; angled; short

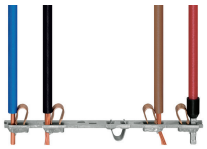


Item No.: 210-647
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft; multicoloured


Continued on next page

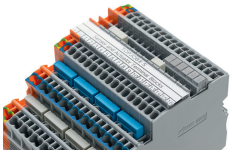
## Installation Notes

### Conductor termination

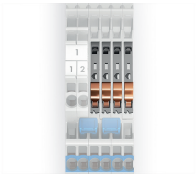


All conductor types at a glance

### Commoning

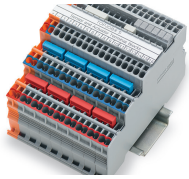


**Commoning (signal level):**
Commoning the signal level with push-in type jumper bars (2000 Series). Models with an LED can only be commoned in one jumper slot!
TOPJOB® S Test Plug Adapters can be used in all jumper slots.

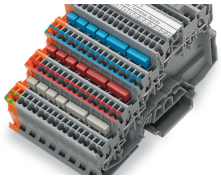


**Upper level:** Two independent signal path-ways

### Commoning



**Commoning (potential level):**
Commoning potential levels via push-in type jumper bars (2000 Series).

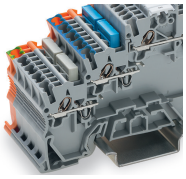


**Commoning (potential level):**
Continuous commoning in the potential lev-els via push-in type jumper bars for even pole numbers (2000 Series)



**Potential levels:** Two adjacent commoning options on a current bar

### Commoning



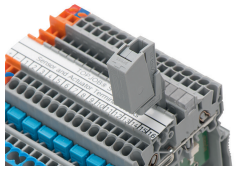
**Ground commoning:**
For sensor and actuator terminal blocks without ground connection to the DIN-rail, the ground connection can be performed by commoning to the terminal block with a ground foot.



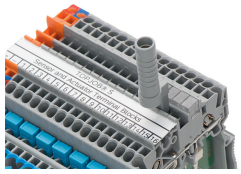
For example, colored push-in type jumper bars are used with sensor terminal blocks.


Continued on next page

## Testing

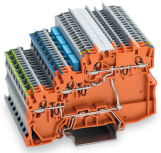


Testing via testing tap (2009-182) (up to max. 42 V).

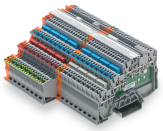


Testing via testing tap (2009-174) (up to max. 42 V).

## Application

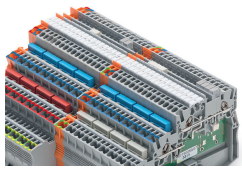


**Supply:**
Orange supply terminal block of same profile with a power supply option from both the cabinet and sensor sides

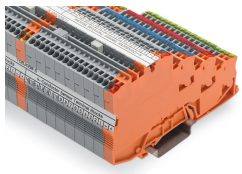


Terminal block assembly with 4-conductor sensor terminal blocks and 3-conductor actuator terminal blocks

## Marking



**Marking:**
3.5 mm WMB markers (793-35xx) from the top or the side – additional marking option via marker carrier



**Marking:**
Labeling via marking strips (2009-110) – from the top or the side.