# Benefits of WAGO Connection Technology

## Gastight Clamping Units – Measurable Contact Quality



Climatic chambers simulate standard atmospheres that could impact long-term constancy of clamping units. All WAGO products meet requirements for the following climatic tests:

- Temperature Cycling Test to IEC/EN 60947-7-1, IEC/EN 60998-2-2
- Industrial Atmospheres to EN ISO 6988, IEC/EN 60068-2-42, IEC/EN 60068-2-60
- Salt Spray Test to IEC/EN 60068-2-11, Marine Applications GL, LR, DNV
- Quick Change of Temperature to IEC/EN 60068-2-14
- Damp Heat, Cyclic (12 + 12 Hours) to IEC/EN 60068-2-30, Marine Applications GL, LR, DNV

Long-term consistency for the low contact resistance of both CAGE CLAMP® and CAGE CLAMP®S results from **gas-tight** clamping units. The spring clamp (acid- and saltwater-proof CrNi spring steel) presses the connected conductor against the current bar (electrolyte copper with lead-free, pure tin coating) within a defined contact zone. The conductor is embedded into the soft tin layer with high contact pressure, securing it against corrosive infiltration.

**The contact pressure**

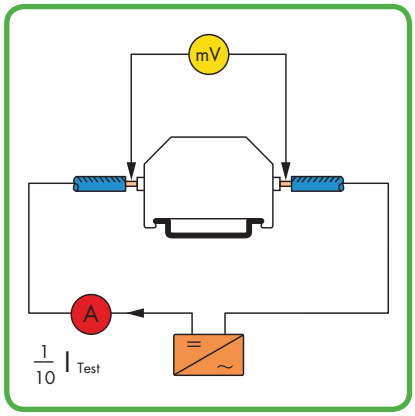
$$P\left[\frac{N}{mm^2}\right] = \frac{\text{Force F [ N ]}}{\text{Area A [mm}^2\text{]}}$$

exerted by CAGE CLAMP® terminations is similar to screw-style terminals.



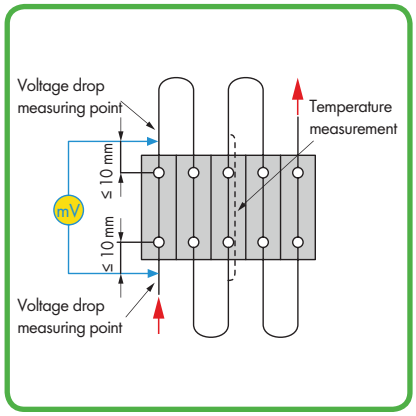
**To best evaluate the quality of a clamping point, WAGO uses the following test procedures:**

The **Voltage Drop Test** evaluates clamping unit quality under stresses such as vibrations, temperature changes and corrosive influences.




Test arrangement: "Voltage Drop Test"

The **Temperature-Rise Test** examines the clamping unit, including the surrounding insulation, at rated current, overcurrent and short-circuit current levels.



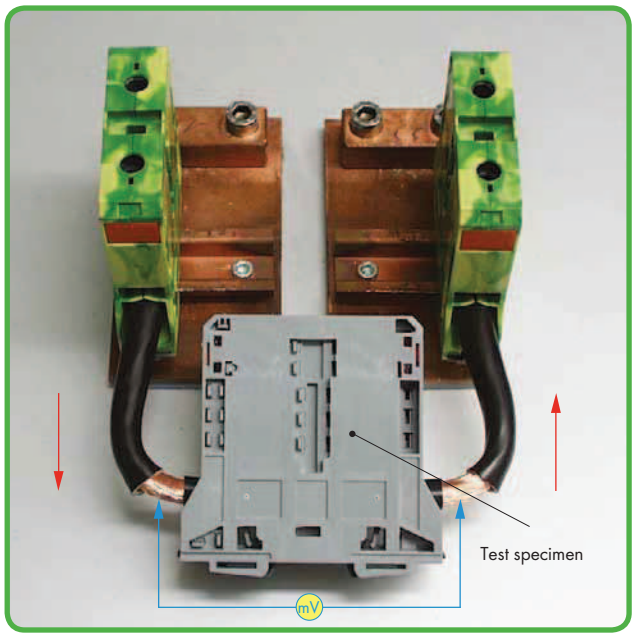

Test arrangement: "Temperature-Rise Test"

# High-Current Carrying Capacity

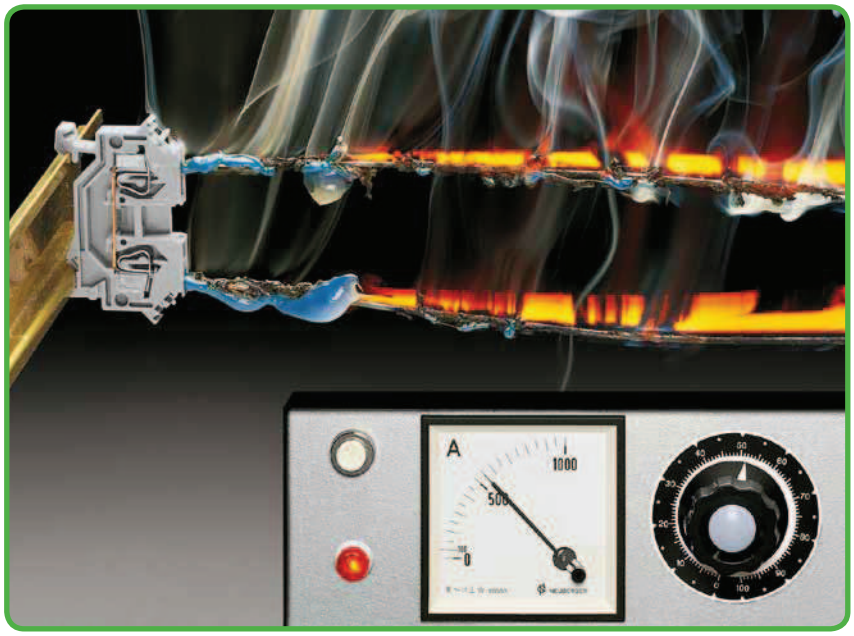
The **short-time withstand capacity** is defined in standards such as IEC/EN 60947-7-1 for through rail-mounted terminal blocks. It is a **current-carrying capacity of 120A per mm² nominal diameter** for the duration of 1 second. **In the case of a 4/0 AWG (95 mm²)** WAGO 285 Series **High-Current Terminal Block, this translates to 11,400A!**

Ground conductor terminal blocks are submitted to the "120A per mm²" test for 3x one second.

The pass criterion for the test is the voltage drop (limit value and constancy). CAGE CLAMP® and CAGE CLAMP®S connections passed this test without damage or reduced functionality.



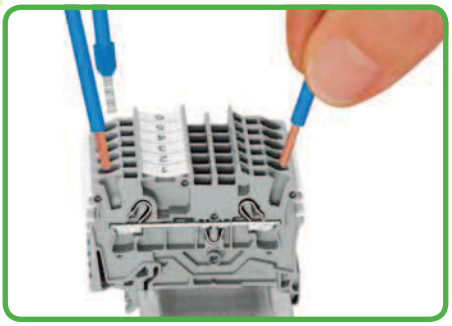

Test arrangement: "Short-Time Current Withstand Test"



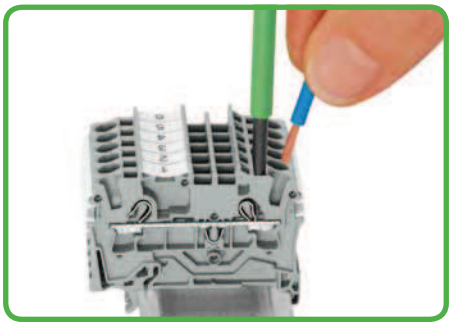

Unrealistic test of a CAGE CLAMP®-equipped,12 AWG (4mm²) rail-mounted terminal block: **Increase of current without time limit.** In such an extreme test – normally, fuse devices would have interrupted the current – **the electrical connection is undamaged.**

# TOPJOB®S Rail-Mounted Terminal Blocks 2000, 2001, 2002, 2004, 2006, 2010 and 2016 Series

## Conductor termination/removal



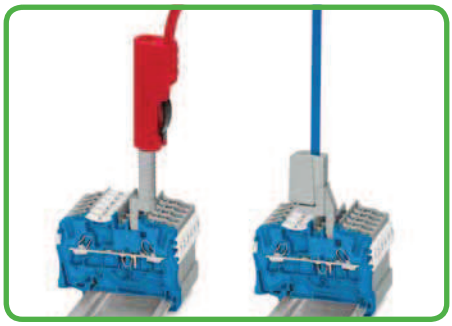
Push-in termination: Solid conductors with cross sections from either one size above, or up to two sizes below, the rated cross section can be pushed in directly – without tools.



With screwdriver: The operation of the clamp remains the same for unprepared fine-stranded conductors or small cross sections that don't allow push-in termination.

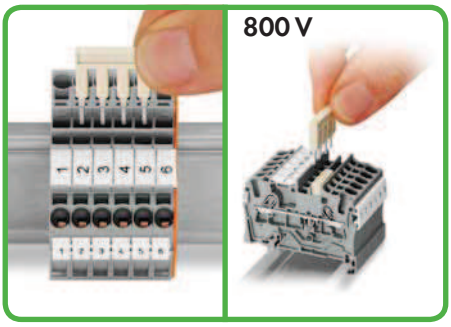
Like the original CAGE CLAMP®, a screwdriver is used for conductor removal with CAGE CLAMP®S.

## Testing



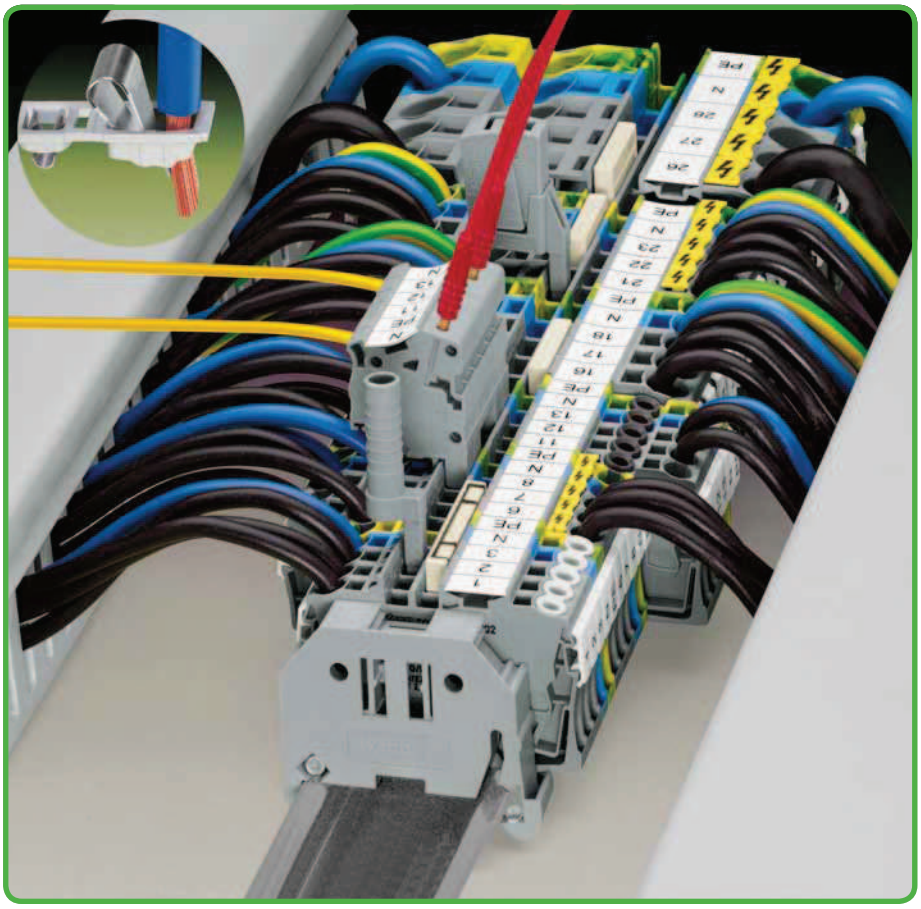
Testing of TOPJOB®S rail-mounted terminal blocks using test plug adapter or testing tap

## Commoning

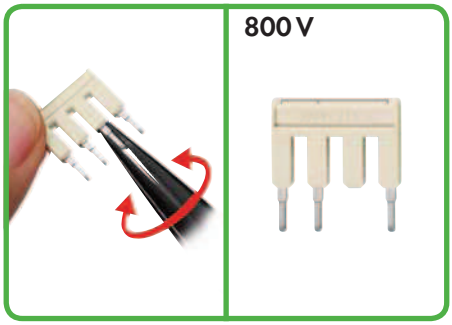



Twin integrated, spring-loaded jumper system allows use of comb-style jumper bars, test plugs and connectors.

Jumper bars rated at 800V (ex works).



## Commoning

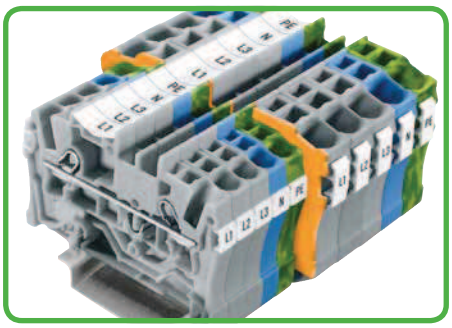



Jumper contacts that are not required can be broken off and removed, the upper-side of the jumper can then be marked accordingly. Applies to 2001, 2002 and 2004 Series.

## Marking

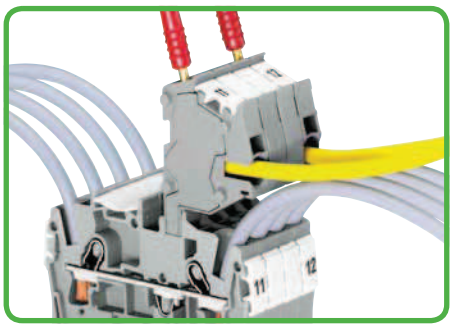


A thermal transfer printer and WAGO "smartDESIGNER" software generate the marking.



TOPJOB®S offers three marking positions for WMB markers, miniature WSB markers or a full-length marking strip.

## Pre-assembled connectors

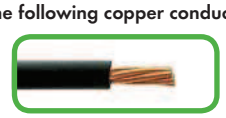


Pre-assembled connectors with CAGE CLAMP®S connection provide an additional connection option.

**CAGE CLAMP®S clamps the following copper conductors:**



solid



stranded



fine-stranded



tip bonded



with ferrule



with pin terminal

Strip length, see packaging or instructions.

# TOPJOB®S
# Rail-Mounted Terminal Blocks 1.0 (1.5) mm²
# 2000 Series

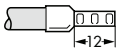
CAGE CLAMP®S

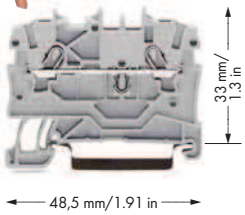
| 0.14 - 1.0 (1.5) mm² ❶ | AWG 24 - 16 |
|---|---|
| 800 V/6 kV/3 | 600 V, 10 A |
| $I_N$ 13.5 A (18 A) | 600 V, 10 A |

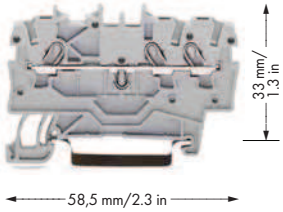
Terminal block width 3.5 mm / 0.138 in
9 - 11 mm / 0.39 in
❷ Approvals

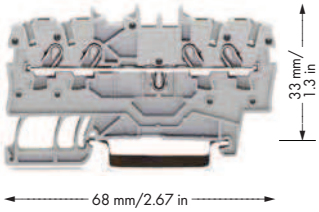
❶ Conductor sizes: 0.14 – 1.5 mm² "s + f-st";
Push-in conductor sizes: 0.5 – 1.5 mm² "s" and 0.5 – 1 mm² "insulated ferrule, 12 mm"






| Color | Item No. | Pack. Unit |
|---|---|---|
| **2-conductor through terminal block** | | |
| gray | **2000-1201** | 100 |
| blue | **2000-1204** | 100 |
| orange | **2000-1202** | 100 |
| red | **2000-1203** | 100 |
| black | **2000-1205** | 100 |
| yellow | **2000-1206** | 100 |
| **2-conductor ground terminal block** | | |
| green-yellow | **2000-1207** | 100 |

| Color | Item No. | Pack. Unit |
|---|---|---|
| **3-conductor through terminal block** | | |
| gray | **2000-1301** | 100 |
| blue | **2000-1304** | 100 |
| orange | **2000-1302** | 100 |
| red | **2000-1303** | 100 |
| black | **2000-1305** | 100 |
| yellow | **2000-1306** | 100 |
| **3-conductor ground terminal block** | | |
| green-yellow | **2000-1307** | 100 |

| Color | Item No. | Pack. Unit |
|---|---|---|
| **4-conductor through terminal block** | | |
| gray | **2000-1401** | 100 |
| blue | **2000-1404** | 100 |
| orange | **2000-1402** | 100 |
| red | **2000-1403** | 100 |
| black | **2000-1405** | 100 |
| yellow | **2000-1406** | 100 |
| **4-conductor ground terminal block** | | |
| green-yellow | **2000-1407** | 100 |

## Item-Specific Accessories

**End and intermediate plate,** 0.7 mm thick



orange **2000-1292** 100 (4x25)
gray **2000-1291** 100 (4x25)

**End and intermediate plate,** 0.7 mm thick



orange **2000-1392** 100 (4x25)
gray **2000-1391** 100 (4x25)

**End and intermediate plate,** 0.7 mm thick



orange **2000-1492** 100 (4x25)
gray **2000-1491** 100 (4x25)

## 2000 Series Accessories

Appropriate marking systems: **WMB/Marking Strips**

**Push-in type jumper bar,** insulated, $I_N$ 14 A, light gray



2-way **2000-402** 200 (8x25)
3-way **2000-403** 200 (8x25)
4-way **2000-404** 200 (8x25)
5-way **2000-405** 100 (4x25)
: :
10-way **2000-410** 100 (4x25)

**Push-in type jumper bar,** insulated, $I_N$ 14 A, light gray



1 - 3 **2000-433** 200 (8x25)
1 - 4 **2000-434** 200 (8x25)
1 - 5 **2000-435** 100 (4x25)
: :
1 - 10 **2000-440** 100 (4x25)

**Star point jumper,** insulated,



$I_N$ = $I_N$ terminal block, light gray
1–3–5 **2000-405/011-000**
100 (4x25)

**Protective warning marker,** with high-voltage symbol,
for 5 terminal blocks



yellow **2000-115** 100 (4x25)

**WMB Multi marking system,**



10 strips with 10 markers per card
for 3.5 mm terminal block width,
plain **793-3501** 50 (10x5)

**Marking strips,** plain



11 mm wide,
50m roll
white **2009-110** 1

**Operating tool with partially insulated shaft,**



type 1, (2.5 x 0.4) mm blade
**210-719** 1

Suitable for Ex i applications

**Test plug adapter,** for test plug 4 mm Ø



gray **2009-174** 100 (4x25)

**Insulated ferrules,** extra long,
for TOPJOB®S terminal blocks
see page 195



**Testing tap,** for max. 2.5 mm²/AWG 14



gray **2009-182** 100 (4x25)

❷ Approvals are available online at: www.wago.com.

For technical explanations and abbreviations, see technical section.

WAGO®

# TOPJOB®S
# Through/Ground Conductor and Ex Terminal Blocks 1.5 (2.5) mm²
# 2001 Series

**0.25 - 1.5 (2.5) mm² ❶** | **AWG 22 - 14**
**800 V/8 kV/3** | **600 V, 10 A**
**$I_N$ 18 A (24 A)** | **600 V, 10 A**
**Terminal block width 4.2 mm / 0.165 in**
**9 – 11 mm / 0.39 in**
**❷ Approvals**

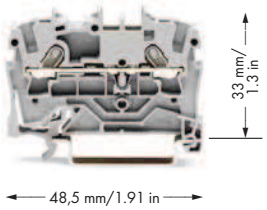
**0.25 - 1.5 (2.5) mm² ❶** | **AWG 22 - 14**
**800 V/8 kV/3** | **600 V, 10 A**
**$I_N$ 18 A (24 A)** | **600 V, 10 A**
**Terminal block width 4.2 mm / 0.165 in**
**9 – 11 mm / 0.39 in**
**❷ Approvals**

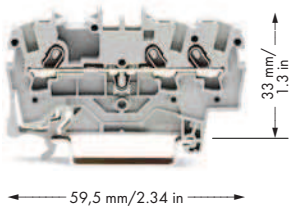
**0.25 - 1.5 (2.5) mm² ❶** | **AWG 22 - 14**
**800 V/8 kV/3** | **600 V, 10 A**
**$I_N$ 18 A (24 A)** | **600 V, 10 A**
**Terminal block width 4.2 mm / 0.165 in**
**9 – 11 mm / 0.39 in**
**❷ Approvals**

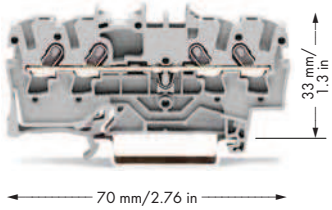


❶ Conductor sizes: 0.25 – 2.5 mm² "s + f-st";
Push-in conductor sizes: 0.5 – 2.5 mm² "s" and
0.75 – 1.5 mm² "insulated ferrule, 12 mm"




| Color | Item No. | Pack. Unit |
|---|---|---|
| **2-conductor through terminal block** | | |
| gray Ex | **2001-1201** | 100 |
| blue Ex | **2001-1204** | 100 |
| orange Ex | **2001-1202** | 100 |
| red Ex | **2001-1203** | 100 |
| black Ex | **2001-1205** | 100 |
| yellow Ex | **2001-1206** | 100 |
| **2-conductor ground terminal block** | | |
| green-yellow Ex | **2001-1207** | 100 |
| **Other terminal blocks with the same profile:** | | |
| Diode | **2001-1211/1000-411** | Volume 1 |

| Color | Item No. | Pack. Unit |
|---|---|---|
| **3-conductor through terminal block** | | |
| gray Ex | **2001-1301** | 100 |
| blue Ex | **2001-1304** | 100 |
| orange Ex | **2001-1302** | 100 |
| red Ex | **2001-1303** | 100 |
| black Ex | **2001-1305** | 100 |
| yellow Ex | **2001-1306** | 100 |
| **3-conductor ground terminal block** | | |
| green-yellow Ex | **2001-1307** | 100 |
| **Other terminal blocks with the same profile:** | | |
| Diode | **2001-1311/1000-411** | Volume 1 |
| LED | **2001-1321/1000-434** | Volume 1 |

| Color | Item No. | Pack. Unit |
|---|---|---|
| **4-conductor through terminal block** | | |
| gray Ex | **2001-1401** | 100 |
| blue Ex | **2001-1404** | 100 |
| orange Ex | **2001-1402** | 100 |
| red Ex | **2001-1403** | 100 |
| black Ex | **2001-1405** | 100 |
| yellow Ex | **2001-1406** | 100 |
| **4-conductor ground terminal block** | | |
| green-yellow Ex | **2001-1407** | 100 |
| **Other terminal blocks with the same profile:** | | |
| Diode | **2001-1411/1000-411** | Volume 1 |
| Diode | **2001-1411/1000-434** | Volume 1 |
| Double-potential | **2001-1441** | Volume 1 |

## Item-Specific Accessories

Separator for Ex e/Ex i applications, see page 30

**End and intermediate plate,** 0.8 mm thick



orange **2002-1292** 100 (4x25)
gray **2002-1291** 100 (4x25)

**End and intermediate plate,** 0.8 mm thick



orange **2002-1392** 100 (4x25)
gray **2002-1391** 100 (4x25)

**End and intermediate plate,** 0.8 mm thick



orange **2002-1492** 100 (4x25)
gray **2002-1491** 100 (4x25)

**Separator,** oversized, 0.8 mm thick



orange **2002-1294** 100 (4x25)
gray **2002-1293** 100 (4x25)

**Separator,** oversized, 0.8 mm thick



orange **2002-1394** 100 (4x25)
gray **2002-1393** 100 (4x25)

**Separator,** oversized, 0.8 mm thick



orange **2002-1494** 100 (4x25)
gray **2002-1493** 100 (4x25)

## 2001 Series Accessories

Appropriate marking systems: **WMB/Marking Strips**

**Push-in type jumper bar,** insulated, $I_N$ 18 A, light gray



2-way **2001-402** 200 (8x25)
3-way **2001-403** 200 (8x25)
4-way **2001-404** 200 (8x25)
: :
10-way **2001-410** 100 (4x25)

**Push-in type jumper bar,** insulated, $I_N$ 18 A, light gray



1 - 3 **2001-433** 200 (8x25)
1 - 4 **2001-434** 200 (8x25)
1 - 5 **2001-435** 100 (4x25)
: :
1 - 10 **2001-440** 100 (4x25)

**Push-in type wire jumper,** insulated, $I_N$ 16 A,
wire size 1.5 mm²/AWG 16



60 mm **2009-412** 100 (10x10)
110 mm **2009-414** 100 (10x10)
250 mm **2009-416** 100 (10x10)

**Insulation stop,**



5 pcs/strip,
0.25 – 0.5 mm²
light gray **2001-171** 200 (8x25)

**Protective warning marker,** with high-voltage symbol,
for 5 terminal blocks



yellow **2001-115** 100 (4x25)

**TOPJOB®S connector,** modular,
for jumper contact slot



gray **2001-511** 100 (4x25)

**Spacer module**
gray **2001-549** 100 (4x25)

**WMB Multi marking system,**



10 strips with 10 markers per card,
stretchable 4 – 4.2 mm
plain **793-4501** 5

Suitable for Ex i applications
Suitable for Ex e II applications
550 V, 17 A

**Operating tool with partially insulated shaft,**



type 1, (2.5 x 0.4) mm blade
**210-719** 1

**Marking strip,** plain,



11 mm wide,
50m roll
white **2009-110** 1

**Insulated ferrules,** extra long,



for TOPJOB®S terminal blocks
see page 195

❷ Approvals are available online at: www.wago.com.

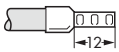
For technical explanations and abbreviations, see technical section.

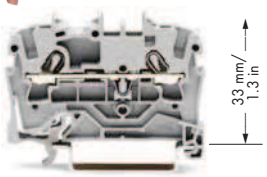
# TOPJOB®S
# Through/Ground Conductor and Ex Terminal Blocks 2.5 (4) mm²
# 2002 Series

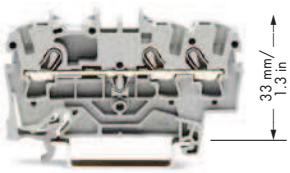
CAGE CLAMP®S

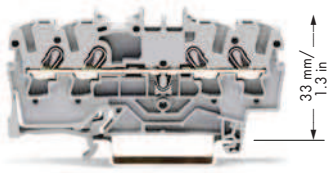
| | | |
|---|---|---|
| 0.25 - 2.5 (4) mm² ❶<br>800 V/8 kV/3<br>$I_N$ 24 A (32 A)<br>AWG 22 - 12<br>600 V, 20 A<br>600 V, 20 A<br>Terminal block width 5.2 mm / 0.205 in<br>10 - 12 mm / 0.43 in.<br>❷ Approvals | 0.25 - 2.5 (4) mm² ❶<br>800 V/8 kV/3<br>$I_N$ 24 A (32 A)<br>AWG 22 - 12<br>600 V, 20 A<br>600 V, 20 A<br>Terminal block width 5.2 mm / 0.205 in<br>10 - 12 mm / 0.43 in.<br>❷ Approvals | 0.25 - 2.5 (4) mm² ❶<br>800 V/8 kV/3<br>$I_N$ 24 A (32 A)<br>AWG 22 - 12<br>600 V, 20 A<br>600 V, 20 A<br>Terminal block width 5.2 mm / 0.205 in<br>10 - 12 mm / 0.43 in.<br>❷ Approvals |

❶ Conductor sizes: 0.25 – 4 mm² "s + f-st";
Push-in conductor sizes: 0.75 – 4 mm² "s" and
0.75 – 2.5 mm² "insulated ferrule, 12 mm"




| Color | Item No. | Pack. Unit |
|---|---|---|
| **2-conductor through terminal block** | | |
| gray (Ex) | **2002-1201** | 100 |
| blue (Ex) | **2002-1204** | 100 |
| orange (Ex) | **2002-1202** | 100 |
| red (Ex) | **2002-1203** | 100 |
| black (Ex) | **2002-1205** | 100 |
| yellow (Ex) | **2002-1206** | 100 |
| **2-conductor ground terminal block** | | |
| green-yellow (Ex) | **2002-1207** | 100 |
| **Other terminal blocks with the same profile:** | | |
| Diode | **2002-1211/1000-411** | Page 42 |

| Color | Item No. | Pack. Unit |
|---|---|---|
| **3-conductor through terminal block** | | |
| gray (Ex) | **2002-1301** | 100 |
| blue (Ex) | **2002-1304** | 100 |
| orange (Ex) | **2002-1302** | 100 |
| red (Ex) | **2002-1303** | 100 |
| black (Ex) | **2002-1305** | 100 |
| yellow (Ex) | **2002-1306** | 100 |
| **3-conductor ground terminal block** | | |
| green-yellow (Ex) | **2002-1307** | 100 |
| **Other terminal blocks with the same profile:** | | |
| Diode | **2002-1311/1000-411** | Page 42 |
| LED | **2002-1321/1000-434** | Page 42 |

| Color | Item No. | Pack. Unit |
|---|---|---|
| **4-conductor through terminal block** | | |
| gray (Ex) | **2002-1401** | 100 |
| blue (Ex) | **2002-1404** | 100 |
| orange (Ex) | **2002-1402** | 100 |
| red (Ex) | **2002-1403** | 100 |
| black (Ex) | **2002-1405** | 100 |
| yellow (Ex) | **2002-1406** | 100 |
| **4-conductor ground terminal block** | | |
| green-yellow (Ex) | **2002-1407** | 100 |
| **Other terminal blocks with the same profile:** | | |
| Diode | **2002-1411/1000-411** | Page 42 |
| Diode | **2002-1411/1000-434** | Page 42 |
| Double-potential | **2002-1441** | Volume 1 |

## Item-Specific Accessories

Separator for Ex e/Ex i applications, see page 30

**End and intermediate plate,** 0.8 mm thick



| | | |
|---|---|---|
| orange | **2002-1292** | 100 (4x25) |
| gray | **2002-1291** | 100 (4x25) |

**End and intermediate plate,** 0.8 mm thick



| | | |
|---|---|---|
| orange | **2002-1392** | 100 (4x25) |
| gray | **2002-1391** | 100 (4x25) |

**End and intermediate plate,** 0.8 mm thick



| | | |
|---|---|---|
| orange | **2002-1492** | 100 (4x25) |
| gray | **2002-1491** | 100 (4x25) |

**Separator,** oversized, 0.8 mm thick



| | | |
|---|---|---|
| orange | **2002-1294** | 100 (4x25) |
| gray | **2002-1293** | 100 (4x25) |

**Separator,** oversized, 0.8 mm thick



| | | |
|---|---|---|
| orange | **2002-1394** | 100 (4x25) |
| gray | **2002-1393** | 100 (4x25) |

**Separator,** oversized, 0.8 mm thick



| | | |
|---|---|---|
| orange | **2002-1494** | 100 (4x25) |
| gray | **2002-1493** | 100 (4x25) |

## 2002 Series Accessories

Appropriate marking systems: **WMB/Marking Strips/WMB Inline/Mini-WSB**

**Push-in type jumper bar,** insulated, $I_N$ 25 A, light gray



| | | |
|---|---|---|
| 2-way | **2002-402** | 200 (8x25) |
| 3-way | **2002-403** | 200 (8x25) |
| 4-way | **2002-404** | 200 (8x25) |
| : | : | |
| 10-way | **2002-410** | 100 (4x25) |

**Push-in type jumper bar,** insulated, $I_N$ 25 A, light gray



| | | |
|---|---|---|
| 1 - 3 | **2002-433** | 200 (8x25) |
| 1 - 4 | **2002-434** | 200 (8x25) |
| 1 - 5 | **2002-435** | 100 (4x25) |
| : | : | |
| 1 - 10 | **2002-440** | 100 (4x25) |

**Staggered jumper,** insulated, $I_N$ 25 A, light gray



| | | |
|---|---|---|
| 2-way | **2002-472** | 100 (4x25) |
| 3-way | **2002-473** | 100 (4x25) |
| 4-way | **2002-474** | 100 (4x25) |
| : | : | |
| 12-way | **2002-482** | 50 (2x25) |

**Insulation stop,** 5 pcs/strip 200 strips



| | | |
|---|---|---|
| light gray | **2002-171** | 0.25–0.5 mm² |
| dark gray | **2002-172** | 0.75–1 mm² |

**Protective warning marker,** with high-voltage symbol, for 5 terminal blocks



| | | |
|---|---|---|
| yellow | **2002-115** | 100 (4x25) |

**TOPJOB®S connector,** modular,



for jumper contact slot

| | | |
|---|---|---|
| gray | **2002-511** | 100 (4x25) |

**Spacer module**

| | | |
|---|---|---|
| gray | **2002-549** | 100 (4x25) |

**WMB Multi marking system,**



10 strips with 10 markers per card, stretchable 5 – 5.2 mm

| | | |
|---|---|---|
| plain | **793-5501** | 5 |

**Marking strip,** plain,



11 mm wide, 50m roll

| | | |
|---|---|---|
| white | **2009-110** | 1 |

- Suitable for Ex i applications
- (Ex) Suitable for Ex e II applications 550 V, 22 A

**Operating tool with partially insulated shaft,**



type 2, (3.5 x 0.5) mm blade

| | | |
|---|---|---|
| | **210-720** | 1 |

**Insulated ferrules,** extra long,



for TOPJOB®S terminal blocks

see page 195

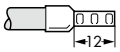
# TOPJOB®S
# Through/Ground and Ex Terminal Blocks 2.5 (4) mm², Angled Type
# 2002 Series

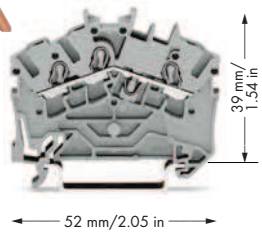
| | |
|---|---|
| 0.25 - 2.5 (4) mm² ❶<br>800 V/8 kV/3<br>$I_N$ 24 A (32 A) | AWG 22 - 12<br>600 V, 20 A<br>600 V, 20 A |
| Terminal block width 5.2 mm / 0.205 in<br>10 - 12 mm / 0.43 in. | |
| ❷ Approvals | |

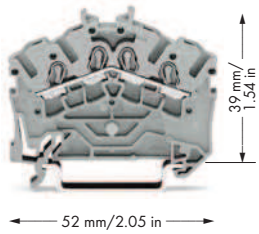
| | |
|---|---|
| 0.25 - 2.5 (4) mm² ❶<br>800 V/8 kV/3<br>$I_N$ 24 A (32 A) | AWG 22 - 12<br>600 V, 20 A<br>600 V, 20 A |
| Terminal block width 5.2 mm / 0.205 in<br>10 - 12 mm / 0.43 in. | |
| ❷ Approvals | |

❶ Conductor sizes: 0.25 – 4 mm² "s + f-st";
Push-in conductor sizes: 0.75 – 4 mm² "s" and
0.75 – 2.5 mm² "insulated ferrule, 12 mm"






| Color | Item No. | Pack. Unit |
|---|---|---|
| **3-conductor through terminal block** | | |
| gray Ex | **2002-6301** | 100 |
| blue Ex | **2002-6304** | 100 |
| orange Ex | **2002-6302** | 100 |
| Additional colors pending | | |
| **3-conductor ground terminal block** | | |
| green-yellow Ex | **2002-6307** | 100 |

| Color | Item No. | Pack. Unit |
|---|---|---|
| **4-conductor through terminal block** | | |
| gray Ex | **2002-6401** | 100 |
| blue Ex | **2002-6404** | 100 |
| orange Ex | **2002-6402** | 100 |
| Additional colors pending | | |
| **4-conductor ground terminal block** | | |
| green-yellow Ex | **2002-6407** | 100 |

**Notice: These terminal blocks cannot be commoned with push-in type jumper bars!**

## Item-Specific Accessories

**End and intermediate plate,** 0.8 mm thick



| | | |
|---|---|---|
| orange | **2002-6392** | 100 (4x25) |
| gray | **2002-6391** | 100 (4x25) |

**End and intermediate plate,** 0.8 mm thick



| | | |
|---|---|---|
| orange | **2002-6392** | 100 (4x25) |
| gray | **2002-6391** | 100 (4x25) |

## 2002 Series Accessories

Appropriate marking systems:
**WMB/Marker Strips/WMB Inline/Mini-WSB**

**Push-in type jumper bar,** insulated, $I_N$ 25 A, light gray



| | | |
|---|---|---|
| 2-way | **2002-402** | 200 (8x25) |
| 3-way | **2002-403** | 200 (8x25) |
| 4-way | **2002-404** | 200 (8x25) |
| 5-way | **2002-405** | 100 (4x25) |
| : | : | |
| 10-way | **2002-410** | 100 (4x25) |

**Push-in type jumper bars,** light gray, insulated, $I_N$ 25 A



| | | |
|---|---|---|
| 1 - 3 | **2002-433** | 200 (8x25) |
| 1 - 4 | **2002-434** | 200 (8x25) |
| 1 - 5 | **2002-435** | 100 (4x25) |
| : | : | |
| 1 - 10 | **2002-440** | 100 (4x25) |

**Staggered jumper,** insulated, $I_N$ 25 A, light gray



| | | |
|---|---|---|
| 2-way | **2002-472** | 100 (4x25) |
| 3-way | **2002-473** | 100 (4x25) |
| 4-way | **2002-474** | 100 (4x25) |
| 5-way | **2002-475** | 50 (2x25) |
| : | : | |
| 12-way | **2002-482** | 50 (2x25) |

**TOPJOB®S connector,** modular,



| | | |
|---|---|---|
| for jumper contact slot | | |
| gray | **2002-511** | 100 (4x25) |

**Spacer module**

| | | |
|---|---|---|
| gray | **2002-549** | 100 (4x25) |

**Operating tool with partially insulated shaft,**



| | | |
|---|---|---|
| type 2, (3.5 x 0.5) mm blade | | |
| | **210-720** | 1 |

**Insulated ferrules,** extra long,



for TOPJOB®S terminal blocks,
see page 195

**Insulation stop,** 5 pcs/strip 200 strips



| | | |
|---|---|---|
| light gray | **2002-171** | 0.25–0.5 mm² |
| dark gray | **2002-172** | 0.75–1 mm² |

**Protective warning marker,** with high-voltage symbol,



| | | |
|---|---|---|
| for 5 terminal blocks | | |
| yellow | **2002-115** | 100 (4x25) |

**Test plug adapter,** for test plug 4 mm Ø



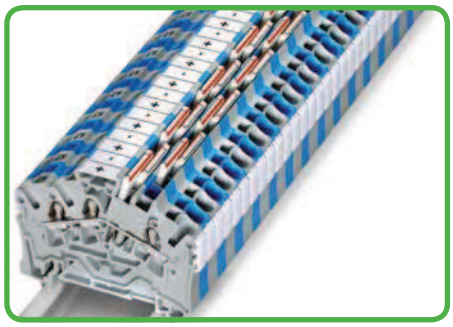
| | | |
|---|---|---|
| gray | **2009-174** | 100 (4x25) |
| **Testing tap,** for max. 2.5 mm²/AWG 14 | | |
| gray | **2009-182** | 100 (4x25) |

**Banana plugs,** only for safety extra-low voltage (42 V)



| | | |
|---|---|---|
| black | **215-311** | 50 |
| red | **215-212** | 50 |
| blue | **215-711** | 50 |

Suitable for Ex i applications
Suitable for Ex e II applications
550 V, 22 A



### 3- and 4-conductor terminal blocks

The TOPJOB®S rail-mounted terminal blocks have a 35-degree conductor entry angle permitting a very small bend radius and an extremely short wiring distance to the cable duct. For applications in switchgear and control cabinets using the LSC wiring system from Lütze, e.g., these terminal blocks are a space- and cost-saving solution. This allows the cable duct to be placed very close to the terminal blocks, keeping its height relatively low.

### Product features:

- CAGE CLAMP®S connection for all conductor types, with the additional benefit of solid and ferruled conductors being simply pushed in
- Vibration-proof, fast, maintenance-free terminations
- 3-conductor through and ground conductor terminal blocks equipped with a dual jumper slot
- 4-conductor terminal blocks permit potential multiplication – no additional jumpers or terminal blocks needed
- 3- and 4-conductor terminal blocks have **the same dimensions**

An end plate must be applied when changing from a 3-conductor terminal block to a 4-conductor terminal block and vice versa.

❷ Approvals are available online at: www.wago.com.

For technical explanations and abbreviations, see technical section.

# TOPJOB®S
# Through/Ground Conductor and Ex Terminal Blocks 4 (6) mm²
# 2004 Series

CAGE CLAMP®S

| 0.5 - 4 (6) mm² ❶ | AWG 20 - 10 |
|---|---|
| 800 V/8 kV/3 | 600 V, 30 A |
| $I_N$ 32 A (41 A) | 600 V, 30 A |

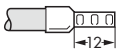
Terminal block width 6.2 mm / 0.244 in
11 - 13 mm / 0.47 in
❷ Approvals

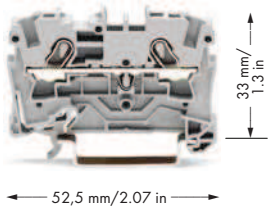
0.5 - 4 (6) mm² ❶ | AWG 20 - 10
800 V/8 kV/3 | 600 V, 30 A
$I_N$ 32 A (41 A) | 600 V, 30 A
Terminal block width 6.2 mm / 0.244 in
11 - 13 mm / 0.47 in
❷ Approvals

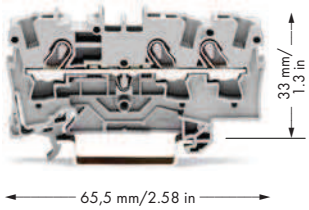
0.5 - 4 (6) mm² ❶ | AWG 20 - 10
800 V/8 kV/3 | 600 V, 30 A
$I_N$ 32 A (41 A) | 600 V, 30 A
Terminal block width 6.2 mm / 0.244 in
11 - 13 mm / 0.47 in
❷ Approvals

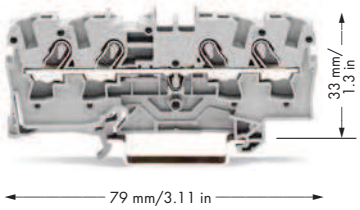


❶ Conductor sizes: 0.5 – 6 mm² "s + f-st";
Push-in conductor sizes: 1 – 6 mm² "s" and
0.75 – 4 mm² "insulated ferrule, 12 mm"




| Color | Item No. | Pack. Unit |
|---|---|---|
| **2-conductor through terminal block** | | |
| gray Ex | **2004-1201** | 100 |
| blue Ex | **2004-1204** | 100 |
| orange Ex | **2004-1202** | 100 |
| red Ex | **2004-1203** | 100 |
| black Ex | **2004-1205** | 100 |
| yellow Ex | **2004-1206** | 100 |
| **2-conductor ground terminal block** | | |
| green-yellow Ex | **2004-1207** | 100 |

| Color | Item No. | Pack. Unit |
|---|---|---|
| **3-conductor through terminal block** | | |
| gray Ex | **2004-1301** | 100 |
| blue Ex | **2004-1304** | 100 |
| orange Ex | **2004-1302** | 100 |
| red Ex | **2004-1303** | 100 |
| black Ex | **2004-1305** | 100 |
| yellow Ex | **2004-1306** | 100 |
| **3-conductor ground terminal block** | | |
| green-yellow Ex | **2004-1307** | 100 |

| Color | Item No. | Pack. Unit |
|---|---|---|
| **4-conductor through terminal block** | | |
| gray Ex | **2004-1401** | 100 |
| blue Ex | **2004-1404** | 100 |
| orange Ex | **2004-1402** | 100 |
| red Ex | **2004-1403** | 100 |
| black Ex | **2004-1405** | 100 |
| yellow Ex | **2004-1406** | 100 |
| **4-conductor ground terminal block** | | |
| green-yellow Ex | **2004-1407** | 100 |

## Item-Specific Accessories

Separator for Ex e/Ex i applications, see page 30

**End and intermediate plate,** 1 mm thick



| | | |
|---|---|---|
| orange | **2004-1292** | 100 (4x25) |
| gray | **2004-1291** | 100 (4x25) |

**End and intermediate plate,** 1 mm thick



| | | |
|---|---|---|
| orange | **2004-1392** | 100 (4x25) |
| gray | **2004-1391** | 100 (4x25) |

**End and intermediate plate,** 1 mm thick



| | | |
|---|---|---|
| orange | **2004-1492** | 100 (4x25) |
| gray | **2004-1491** | 100 (4x25) |

**Separator,** oversized, 0.8 mm thick



| | | |
|---|---|---|
| orange | **2004-1294** | 100 (4x25) |
| gray | **2004-1293** | 100 (4x25) |

**Separator,** oversized, 0.8 mm thick



| | | |
|---|---|---|
| orange | **2004-1394** | 100 (4x25) |
| gray | **2004-1393** | 100 (4x25) |

**Separator,** oversized, 0.8 mm thick



| | | |
|---|---|---|
| orange | **2004-1494** | 100 (4x25) |
| gray | **2004-1493** | 100 (4x25) |

## 2004 Series Accessories

Appropriate marking systems: **WMB/Marking strips/Mini-WSB**

**Push-in type jumper bar,** insulated, $I_N$ 32 A, light gray



| | | |
|---|---|---|
| 2-way | **2004-402** | 200 (8x25) |
| 3-way | **2004-403** | 200 (8x25) |
| 4-way | **2004-404** | 100 (4x25) |
| : | : | |
| 10-way | **2004-410** | 100 (4x25) |

**Push-in type jumper bar,** insulated, $I_N$ 32 A, light gray



| | | |
|---|---|---|
| 1 - 3 | **2004-433** | 200 (8x25) |
| 1 - 4 | **2004-434** | 200 (8x25) |
| 1 - 5 | **2004-435** | 100 (4x25) |
| : | : | |
| 1 - 10 | **2004-440** | 100 (4x25) |

**Star point jumper,** insulated,



$I_N$ = $I_N$ terminal block, light gray
1–3–5 **2004-405/011-000** 100 (4x25)

**Step-down jumper,** insulated,



$I_N$ 32 A
light gray **2006-499** 50 (2x25)

**Insulation stop,** 5 pcs/strip 200 strips



| | | |
|---|---|---|
| light gray | **2004-171** | 0.25–0.5 mm² |
| dark gray | **2004-172** | 0.75–1 mm² |

**Protective warning marker,** with high-voltage symbol, for 5 terminal blocks



yellow **2004-115** 100 (4x25)

**TOPJOB®S connector,** modular,



for jumper contact slot
gray **2004-511** 100 (4x25)

**Spacer module**

gray **2004-549** 100 (4x25)

**WMB Multi marking system,**



10 strips with 10 markers per card, stretchable 5 – 5.2 mm
plain **793-5501** 5

**Marking strip,** plain,



11 mm wide,
50m roll
white **2009-110** 1

Suitable for Ex i applications
Ex Suitable for Ex e II applications
550 V, 30 A

**Operating tool with partially insulated shaft,**



type 2, (3.5 x 0.5) mm blade
**210-720** 1

**Insulated ferrules,** extra long,



for TOPJOB®S terminal blocks
see page 195

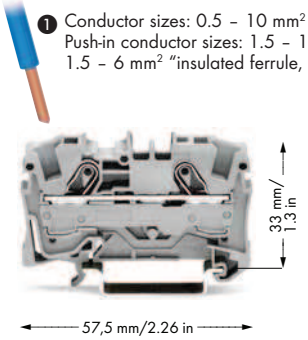
# TOPJOB®S
# Through/Ground Conductor and Ex Terminal Blocks 6 (10) mm²
# 2006 Series

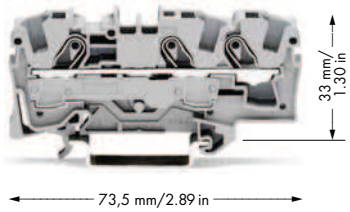
**0.5 - 6 (10) mm²** ❶ | **AWG 20 - 8**
**800 V/8 kV/3** | **600 V, 50 A**
**$I_N$ 41 A (57 A)** | **600 V, 50 A**
**Terminal block width 7.5 mm / 0.295 in**
**13 - 15 mm / 0.55 in**
❷ **Approvals**

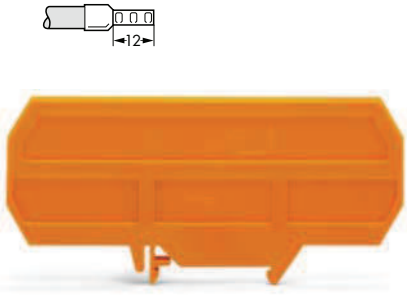
**0.5 - 6 (10) mm²** ❶ | **AWG 20 - 8**
**800 V/8 kV/3** | **600 V, 50 A**
**$I_N$ 41 A (57 A)** | **600 V, 50 A**
**Terminal block width 7.5 mm / 0.295 in**
**13 - 15 mm / 0.55 in**
❷ **Approvals**

**Separator for Ex e/Ex i applications**

❶ Conductor sizes: 0.5 – 10 mm² "s + f-st";
Push-in conductor sizes: 1.5 – 10 mm² "s" and
1.5 – 6 mm² "insulated ferrule, 12 mm"




| Color | Item No. | Pack. Unit |
|---|---|---|
| **2-conductor through terminal block** | | |
| gray Ⓔx | **2006-1201** | 50 |
| blue Ⓔx | **2006-1204** | 50 |
| orange Ⓔx | **2006-1202** | 50 |
| **2-conductor ground terminal block** | | |
| green-yellow Ⓔx | **2006-1207** | 50 |

| Color | Item No. | Pack. Unit |
|---|---|---|
| **3-conductor through terminal block** | | |
| gray Ⓔx | **2006-1301** | 25 |
| blue Ⓔx | **2006-1304** | 25 |
| orange Ⓔx | **2006-1302** | 25 |
| **3-conductor ground terminal block** | | |
| green-yellow Ⓔx | **2006-1307** | 25 |

| | Item No. | Pack. Unit |
|---|---|---|
| **Separator for Ex e/Ex i applications,** 3 mm thick, | | |
| orange | | |
| 90 mm wide | **209-190** | 50 (2x25) |
| 120 mm wide | **209-191** | 50 (2x25) |

## Item-Specific Accessories

**End and intermediate plate,** 1 mm thick



| | | |
|---|---|---|
| orange | **2006-1292** | 100 (4x25) |
| gray | **2006-1291** | 100 (4x25) |

**End and intermediate plate,** 1 mm thick



| | | |
|---|---|---|
| orange | **2006-1392** | 100 (4x25) |
| gray | **2006-1391** | 100 (4x25) |

## 2006 Series Accessories
Appropriate marking systems: **WMB/Marking strips/Mini-WSB**

**Push-in type jumper bar,** insulated, $I_N$ 41 A, light gray



| | | |
|---|---|---|
| 2-way | **2006-402** | 50 (2x25) |
| 3-way | **2006-403** | 50 (2x25) |
| 4-way | **2006-404** | 50 (2x25) |
| 5-way | **2006-405** | 50 (2x25) |

**Push-in type jumper bar,** insulated, $I_N$ 41 A, light gray



| | | |
|---|---|---|
| 1 - 3 | **2006-433** | 50 (2x25) |
| 1 - 4 | **2006-434** | 50 (2x25) |
| 1 - 5 | **2006-435** | 50 (2x25) |

**Star point jumper,** insulated,



$I_N$ = $I_N$ terminal block,
light gray
1–3–5 **2004-405/011-000**
100 (4x25)

**Step-down jumper,** insulated,



$I_N$ 32 A
light gray **2006-499** 50 (2x25)

**Protective warning marker,** with high-voltage symbol,



for 5 terminal blocks
yellow **2006-115** 100 (4x25)

**Operating tool with partially insulated shaft,**



type 3, (5.5 x 0.8) mm blade
**210-721** 1

**Test plug adapter,** for test plug 4 mm Ø



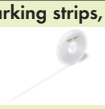
| | | |
|---|---|---|
| gray | **2009-174** | 100 (4x25) |
| **Testing tap,** for max. 2.5 mm²/AWG 14 | | |
| gray | **2009-182** | 100 (4x25) |

**Banana plugs,** only for safety extra-low voltage (42 V)



| | | |
|---|---|---|
| black | **215-311** | 50 |
| red | **215-212** | 50 |
| blue | **215-711** | 50 |

**Marking strips,** plain,



11 mm wide,
50m roll
white **2009-110** 1

**WMB Multi marking system,**



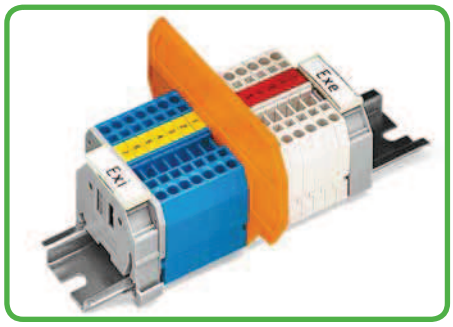
10 strips with 10 markers per card,
stretchable 5 – 5.2 mm
plain **793-5501** 50 (10x5)

**Insulated ferrules,** extra long,



for TOPJOB®S terminal blocks
see page 195

Ⓔx Suitable for Ex e II applications
550 V, 38 A (2-conductor terminal blocks)
550 V, 36 A (3-conductor terminal blocks)




**Separator for Ex e/Ex i applications**
According to EN 50020, a minimum distance of 50 mm must be kept between live parts of Ex e and Ex i circuits. The use of Ex e/Ex i separators is a space-saving solution when Ex e and Ex i terminal blocks are mounted on a common carrier rail.

Suitable for Series: 279 to 282, 2001, 2002 and 2004.

209-190 for 2-conductor terminal blocks.
209-191 for 2-, 3-, 4-conductor terminal blocks.

❷ Approvals are available online at: www.wago.com.

For technical explanations and abbreviations, see technical section.