

**Data Sheet | Item Number: 727-228/022-000**  
4-level same potential terminal block; without locking clips; all clamping units internally commoned; with 2.3 mm Ø test port; marking: a-b-c-d--d-c-b-a; for 35 x 7.5 mounting rail; 1.5 mm²; 1,50 mm²; light gray  
<https://www.wago.com/727-228/022-000>



Color: ■ light gray                      Similar to illustration

**Electrical data**

| Ratings per IEC/EN            |                                                           |
|-------------------------------|-----------------------------------------------------------|
| Nominal voltage (III/3)       | 250 V                                                     |
| Rated impulse voltage (III/3) | 4 kV                                                      |
| Rated current                 | 18 A                                                      |
| Legend (ratings)              | (III / 3) ≙ Overvoltage category III / Pollution degree 3 |

**Connection data**

|                            |    |
|----------------------------|----|
| Connection points          | 16 |
| Total number of potentials | 1  |
| Number of levels           | 4  |

| Connection 1                    |                                    |
|---------------------------------|------------------------------------|
| Connection technology           | CAGE CLAMP®                        |
| Actuation type                  | Operating tool                     |
| Connectable conductor materials | Copper                             |
| Solid conductor                 | 0.08 ... 1.5 mm² / 28 ... 16 AWG   |
| Fine-stranded conductor         | 0.08 ... 1.5 mm² / 28 ... 16 AWG   |
| Strip length                    | 8 ... 10 mm / 0.31 ... 0.39 inches |
| Wiring direction                | Front-entry wiring                 |

**Physical data**

|                                   |                        |
|-----------------------------------|------------------------|
| Width                             | 7.62 mm / 0.3 inches   |
| Height                            | 126 mm / 4.961 inches  |
| Depth from upper-edge of DIN-rail | 44.5 mm / 1.752 inches |



| Mechanical data |  |                  |
|-----------------|--|------------------|
| Marking         |  | a-b-c-d--d-c-b-a |
| Design          |  | horizontal type  |
| Mounting type   |  | DIN-35 rail      |
| Marking level   |  | Center marking   |

| Material data               |  |                                                                                                                        |
|-----------------------------|--|------------------------------------------------------------------------------------------------------------------------|
| Note (material data)        |  | <a href="https://www.wago.com/us/material-specifications">Information on material specifications can be found here</a> |
| Color                       |  | light gray                                                                                                             |
| Material group              |  | I                                                                                                                      |
| Insulation material         |  | Polyamide (PA66)                                                                                                       |
| Flammability class per UL94 |  | V0                                                                                                                     |
| Fire load                   |  | 0.555 MJ                                                                                                               |
| Weight                      |  | 29.6 g                                                                                                                 |

| Environmental requirements       |  |                 |
|----------------------------------|--|-----------------|
| Processing temperature           |  | -35 ... +85 °C  |
| Continuous operating temperature |  | -60 ... +105 °C |

| Commercial data       |  |               |
|-----------------------|--|---------------|
| eCl@ss 10.0           |  | 27-14-11-20   |
| eCl@ss 9.0            |  | 27-14-11-20   |
| ETIM 8.0              |  | EC000897      |
| ETIM 7.0              |  | EC000897      |
| PU (SPU)              |  | 50 pcs        |
| Packaging type        |  | Box           |
| Country of origin     |  | DE            |
| GTIN                  |  | 4045454189198 |
| Customs tariff number |  | 85369010000   |

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

Approvals / Certificates

| General approvals                                                                                                                                                                                                                                          |               |                  | Declarations of conformity and manufacturer's declarations |          |                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|------------------|------------------------------------------------------------|----------|------------------|
|    |               |                  | Approval                                                   | Standard | Certificate Name |
| Approval                                                                                                                                                                                                                                                   | Standard      | Certificate Name | EU-Declaration of Confor-<br>mity<br>WAGO GmbH & Co. KG    | -        | -                |
| CSA<br>DEKRA Certification B.V.                                                                                                                                                                                                                            | C22.2 No. 158 | 70048845         | UK-Declaration of Confor-<br>mity<br>WAGO GmbH & Co. KG    | -        | -                |
| KEMA/KEUR<br>DEKRA Certification B.V.                                                                                                                                                                                                                      | EN 60947      | 2192101.01       |                                                            |          |                  |



Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance  
727-228/022-000

↓

Documentation

Additional Information

Technical Section

pdf  
2240.62 KB

↓

CAD/CAE-Data

CAD data

2D/3D Models  
727-228/022-000

↓

CAE data

EPLAN Data Portal  
727-228/022-000

↓

WSCAD Universe  
727-228/022-000

↓

ZUKEN Portal  
727-228/022-000

↓

1 Compatible Products

1.1 Required Accessories

1.1.1 End plate

1.1.1.1 End plate



Item No.: 727-266  
4-level end plate; marking: a-b-c-d--d-c-b-a; 7.62 mm thick; blue



Item No.: 727-256  
4-level end plate; marking: a-b-c-d--d-c-b-a; 7.62 mm thick; gray/gray



Item No.: 727-206  
4-level end plate; marking: a-b-c-d--d-c-b-a; 7.62 mm thick; orange

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.: 210-508  
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; galvanized; similar to EN 60715; silver-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.: 210-506  
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; galvanized; 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



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 Ferrule

1.2.2.1 Ferrule



**Item No.: 216-301**  
Ferrule; Sleeve for 0.25 mm² / AWG 24; insulated; electro-tin plated; yellow



**Item No.: 216-321**  
Ferrule; Sleeve for 0.25 mm² / AWG 24; insulated; electro-tin plated; yellow



**Item No.: 216-151**  
Ferrule; Sleeve for 0.25 mm² / AWG 24; uninsulated; electro-tin plated



**Item No.: 216-131**  
Ferrule; Sleeve for 0.25 mm² / AWG 24; uninsulated; electro-tin plated; silver-colored



**Item No.: 216-302**  
Ferrule; Sleeve for 0.34 mm² / 22 AWG; insulated; electro-tin plated; light turquoise



**Item No.: 216-322**  
Ferrule; Sleeve for 0.34 mm² / 22 AWG; insulated; electro-tin plated; light turquoise



**Item No.: 216-132**  
Ferrule; Sleeve for 0.34 mm² / AWG 24; uninsulated; electro-tin plated



**Item No.: 216-152**  
Ferrule; Sleeve for 0.34 mm² / AWG 24; uninsulated; electro-tin plated



**Item No.: 216-201**  
Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; white



**Item No.: 216-221**  
Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; white



**Item No.: 216-101**  
Ferrule; Sleeve for 0.5 mm² / AWG 22; uninsulated; electro-tin plated; silver-colored



**Item No.: 216-121**  
Ferrule; Sleeve for 0.5 mm² / AWG 22; uninsulated; electro-tin plated; silver-colored



**Item No.: 216-202**  
Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; gray



**Item No.: 216-222**  
Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; gray



**Item No.: 216-102**  
Ferrule; Sleeve for 0.75 mm² / AWG 20; uninsulated; electro-tin plated; silver-colored



**Item No.: 216-122**  
Ferrule; Sleeve for 0.75 mm² / AWG 20; uninsulated; electro-tin plated; silver-colored



**Item No.: 216-203**  
Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; red



**Item No.: 216-223**  
Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; red



**Item No.: 216-103**  
Ferrule; Sleeve for 1 mm² / AWG 18; uninsulated; electro-tin plated



**Item No.: 216-123**  
Ferrule; Sleeve for 1 mm² / AWG 18; uninsulated; electro-tin plated; silver-colored



**Item No.: 216-204**  
Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; black



**Item No.: 216-224**  
Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; black



**Item No.: 216-124**  
Ferrule; Sleeve for 1.5 mm² / AWG 16; uninsulated; electro-tin plated



**Item No.: 216-104**  
Ferrule; Sleeve for 1.5 mm² / AWG 16; uninsulated; electro-tin plated; silver-colored

1.2.3 Installation

1.2.3.1 Mounting accessories



**Item No.: 249-109**  
Wire harness support; gray



1.2.4 Insulation stop

1.2.4.1 Insulation stop



**Item No.: 727-197**  
Insulation stop; 0.08 - 0.2 mm<sup>2</sup> "s" (0.14 mm<sup>2</sup> "f-st"); 8 pieces/strip; white



**Item No.: 727-199**  
Insulation stop; 0.25 - 0.5 mm<sup>2</sup> "s+f-st"; 8 pieces/strip; dark gray



**Item No.: 727-198**  
Insulation stop; 0.25 mm<sup>2</sup> "s"; 0.14 - 0.25 mm<sup>2</sup> "f-st"; 8 pieces/strip; light gray

1.2.5 Jumper

1.2.5.1 Jumper



**Item No.: 709-107**  
Wire commoning chain; 0.5 mm<sup>2</sup>; insulated; gray

1.2.6 Marking

1.2.6.1 Double marker carrier



**Item No.: 209-128**  
Adaptor; gray

1.2.6.2 Marker



**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.: 793-5501/000-007**  
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.: 793-501/000-006**  
WMB marking card; as card; not stretchable; plain; snap-on type; blue



**Item No.: 793-501/000-007**  
WMB marking card; as card; not stretchable; plain; snap-on type; gray



**Item No.: 793-501/000-023**  
WMB marking card; as card; not stretchable; plain; snap-on type; green



**Item No.: 793-501/000-017**  
WMB marking card; as card; not stretchable; plain; snap-on type; light green



**Item No.: 793-501/000-012**  
WMB marking card; as card; not stretchable; plain; snap-on type; orange



**Item No.: 793-501/000-005**  
WMB marking card; as card; not stretchable; plain; snap-on type; red



**Item No.: 793-501/000-024**  
WMB marking card; as card; not stretchable; plain; snap-on type; violet



**Item No.: 793-501**  
WMB marking card; as card; not stretchable; plain; snap-on type; white



**Item No.: 793-501/000-002**  
WMB marking card; as card; not stretchable; 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

1.2.6.2 Marker



**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.: 2009-115/000-024**  
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 Test and measurement

1.2.7.1 Testing accessories



**Item No.: 210-297**  
Step-down test plug; from 4mm socket to 2mm plug; red

1.2.8 Tool

1.2.8.1 Operating tool



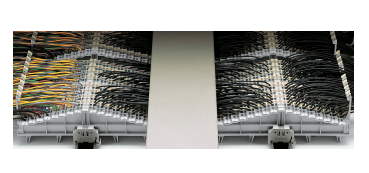
**Item No.: 210-719**  
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft



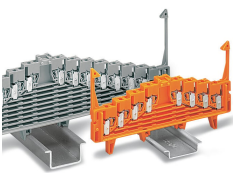
**Item No.: 210-647**  
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft; multicoloured

Installation Notes

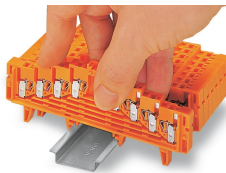
Installation



Example of matrix patching assembly  
Left: Main cables fed through locking clips on the field side  
Right: Control cables fed between locking clips  
Center: Wiring of both patching sides



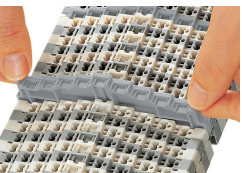
Terminal blocks for DIN-35 x 7.5 mm or DIN-35 x 15 mm rails are available.



Snap individual 4- or 8-level terminal blocks onto the DIN-rail.

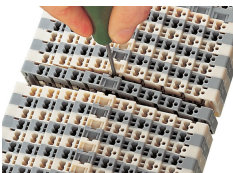


Slide terminal blocks together.

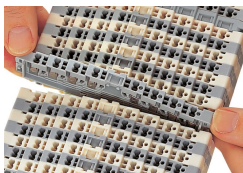


Grip end plate at both sides and:

- push down (assembly)
- pull up (removal)



Open the assembly by laterally sliding a block via operating tool (2.5 x 0.4 mm blade).



Slide terminal block and remove from the rail with a levering action.

## Conductor termination

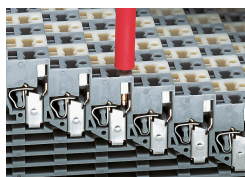


### CAGE CLAMP® connection

Inserting a conductor via 210-719 Operating Tool (2.5 x 0.4 mm blade).

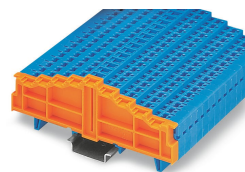
Max. cross-section for uninsulated ferrules 1 mm<sup>2</sup> (18 AWG), for insulated ferrules 0.75 mm<sup>2</sup> (20 AWG)

## Testing

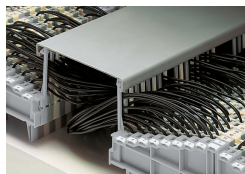


Special test contact for step-down test plug; from 4 mm socket to 2 mm plug; max. 42 V

## Ex application



Blue terminal blocks for matrix patching are suitable for Ex i applications.

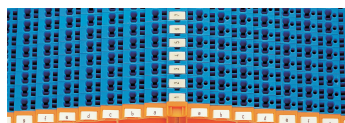


Using terminal blocks with locking clips, the wiring space between the terminal strips can be covered with a wiring duct cover.

## Marking



Connection points identified via factory-direct printing



Marking coordinates via WMB Multi Marking System.