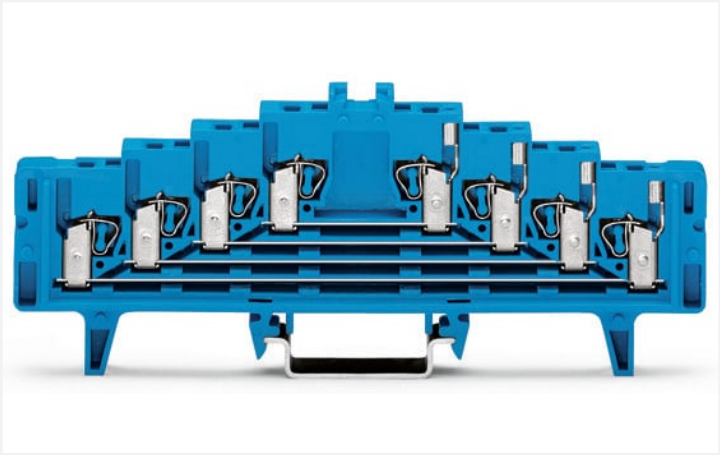
# Data Sheet | Item Number: 727-224/021-000

4-level terminal block for matrix patching; without locking clips; one potential per level; with 2.3 mm Ø test port; marking: 0-1-2-3--3-2-1-0; for 35 x 7.5 mounting rail; 1.5 mm²; 1,50 mm²; blue

https://www.wago.com/727-224/021-000



Color: blue

Similar to illustration

## Notes

| | |
|---|---|
| Safety information | 60V Ex i application = peak value (table 4, EN 50020) |
| Safety information 2 | When approved by the manufacturer's authorized inspection representative |

## Electrical data

### Ratings per IEC/EN

| | |
|---|---|
| Nominal voltage (III/3) | 250 V |
| Rated impulse voltage (III/3) | 4 kV |
| Rated current | 12 A |
| Legend (ratings) | (III / 3) ≙ Overvoltage category III / Pollution degree 3 |

## Connection data

| | |
|---|---|
| Connection points | 16 |
| Total number of potentials | 4 |
| 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 |


Continued on next page

## 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 | 0-1-2-3--3-2-1-0 |
| 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 | blue |
| Material group | I |
| Insulation material | Polyamide (PA66) |
| Flammability class per UL94 | V0 |
| Fire load | 0.55 MJ |
| Weight | 32.4 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 | 4045454188955 |
| Customs tariff number | 85369010000 |

## 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 7485 |
| CSA<br>DEKRA Certification B.V. | C22.2 No. 158 | 70048845 |
| KEMA/KEUR<br>DEKRA Certification B.V. | EN 60947 | 2192101.01 |

### 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 | - | - |

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## Downloads

### Environmental Product Compliance

**Compliance Search**

Environmental Product Compliance
727-224/021-000

### Documentation

**Additional Information**

| | | |
|---|---|---|
| Technical Section | pdf<br>2240.62 KB | |

### CAD/CAE-Data

**CAD data**

2D/3D Models
727-224/021-000

**CAE data**

EPLAN Data Portal
727-224/021-000

WSCAD Universe
727-224/021-000

ZUKEN Portal
727-224/021-000

## 1 Compatible Products

### 1.1 Required Accessories

#### 1.1.1 End plate

##### 1.1.1.1 End plate

Item No.: 727-265
4-level end plate; marking: 0-1-2-3--3-2-1-0; 7.62 mm thick; blue

Item No.: 727-255
4-level end plate; marking: 0-1-2-3--3-2-1-0; 7.62 mm thick; gray/gray

Item No.: 727-205
4-level end plate; marking: 0-1-2-3--3-2-1-0; 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

 Continued on next page

### 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

 Continued on next page

## 1.2.4 Insulation stop

### 1.2.4.1 Insulation stop

Item No.: 727-197
Insulation stop; 0.08 - 0.2 mm² "s" (0.14 mm² "f-st"); 8 pieces/strip; white

Item No.: 727-199
Insulation stop; 0.25 - 0.5 mm² "s+f-st"; 8 pieces/strip; dark gray

Item No.: 727-198
Insulation stop; 0.25 mm² “s”; 0.14 - 0.25 mm² “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 mm²; 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

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### 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

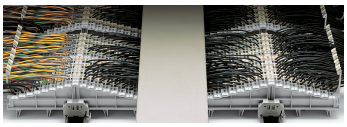
### 1.2.8.1 Operating tool

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

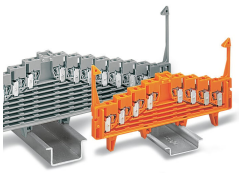
Item No.: 210-647
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft; multicoloured

## Installation Notes

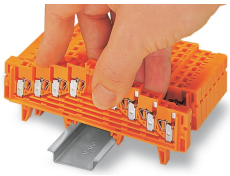
### Installation



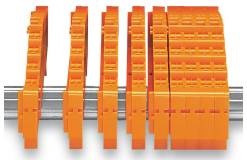
Example of matrix patching assembly
Left: Main cables fed through locking clips on the field side
Right: Control cables fed between locking clips
Center: Wiring of both patching sides



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



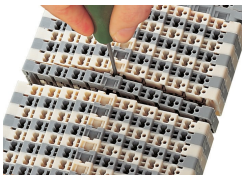
Snap individual 4- or 8-level terminal blocks onto the DIN-rail.



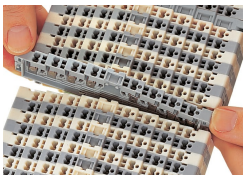
Slide terminal blocks together.

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.

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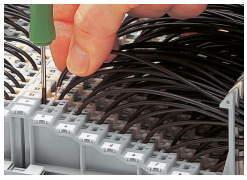
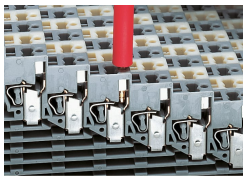
## Conductor termination



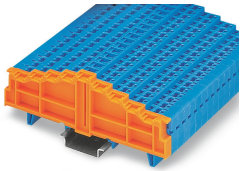
**CAGE CLAMP® connection**
Inserting a conductor via 210-719 Operating Tool (2.5 x 0.4 mm blade).
Max. cross-section for uninsulated ferrules 1 mm² (18 AWG), for insulated ferrules 0.75 mm² (20 AWG)

## Testing

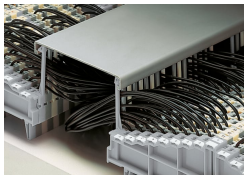


Special test contact for step-down test plug; from 4 mm socket to 2 mm plug; max. 42 V

## Ex application

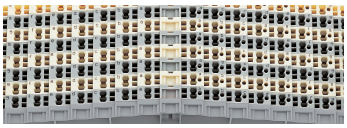


Blue terminal blocks for matrix patching are suitable for Ex i applications.

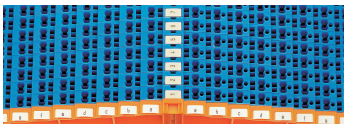


Using terminal blocks with locking clips, the wiring space between the terminal strips can be covered with a wiring duct cover.

## Marking



Connection points identified via factory-direct printing



Marking coordinates via WMB Multi Marking System.