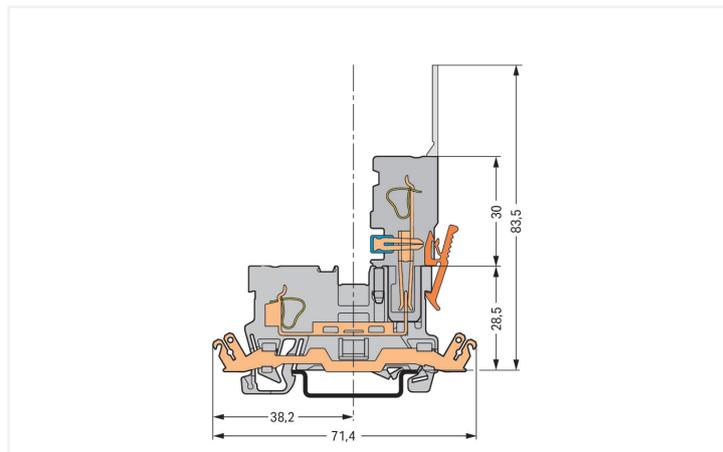


## Data Sheet | Item Number: 769-231

1-conductor/1-pin carrier terminal block; with shield contact; for DIN-rail 35 x 15 and 35 x 7.5; 4 mm<sup>2</sup>; CAGE CLAMP®; 4,00 mm<sup>2</sup>; gray

<https://www.wago.com/769-231>



Color: ■ gray

Carrier terminal block with shield contact

Through terminal block, 769 Series, CAGE CLAMP®

This through terminal block (item number 769-231) is designed for seamless electrical installations. Strip lengths must be between 8 and 9 mm when connecting conductors to this through terminal block. Pluggable rail-mount terminal blocks are primarily found in switchgear units and control systems, most notably in railroad technology. These innovative systems combine the benefits of rail-mount terminal blocks and connectors for a flexible and reliable wiring system. You also have the option of pre-assembling installations, which not only makes production but also installation, operation, and maintenance more efficient and cost-effective. The through terminal block also serves as a shield termination. This product features conductor terminals and utilizes CAGE CLAMP®. Our celebrated universal connection known as CAGE CLAMP® is the industry standard for connection technology and electrical interconnections. This through terminal block is suitable for conductor cross sections ranging from 0.08 mm<sup>2</sup> to 4 mm<sup>2</sup>.

This pluggable rail-mount terminal block is operated with an operating tool.

### Notes

Safety Information

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

### 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	32 A	-	-

### Power Loss

Power loss, per pole (potential)	1.024 W
Rated current $I_N$ for power loss specification	32 A
Resistance value for specified, current-dependent power loss	0.001 Ω

### General information

Wiring direction Front-entry wiring

### Connection Data

Clamping units	1
Total number of potentials	1
Number of levels	1

### Connection 1

Connection technology	CAGE CLAMP®
Number of connection points	1
Actuation type	Operating tool
Connectable conductor materials	Copper
Nominal cross-section	4 mm² / 12 AWG
Solid conductor	0.08 ... 4 mm² / 28 ... 12 AWG
Fine-stranded conductor	0.08 ... 4 mm² / 28 ... 12 AWG
Strip length	8 ... 9 mm / 0.31 ... 0.35 inches
Wiring direction	Front-entry wiring

### Connection 2

Number of connection points	1
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### Physical data

Width	5 mm / 0.197 inches
Height	71.5 mm / 2.815 inches
Depth from upper-edge of DIN-rail	28.5 mm / 1.122 inches

### Mechanical data

Design	horizontal type
Mounting type	DIN-35 rail
Marking level	Center marking

### Material data

Note (material data)	<a href="#">Information on material specifications can be found here</a>
Color	gray
Material group	I
Insulation material (main housing)	Polyamide (PA66)
Flammability class per UL94	V0
Fire load	0.104 MJ
Weight	7.5 g

### Environmental requirements

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

### Commercial data

Product Group	18 (X-COM-System)
PU (SPU)	50 pcs
Packaging type	Box
Country of origin	DE
GTIN	4050821107415
Customs tariff number	85366990990

**Product Classification**

UNSPSC	39121410
eCl@ss 10.0	27-14-11-20
eCl@ss 9.0	27-14-11-20
ETIM 9.0	EC000897
ETIM 10.0	EC000897
ECCN	NO US CLASSIFICATION

**Environmental Product Compliance**

RoHS Compliance Status	Compliant, No Exemption
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**Approvals / Certificates**

**General approvals** **Declarations of conformity and manufacturer's declarations**



Approval	Standard	Certificate Name
CCA DEKRA Certification B.V.	EN 60947	NTR NL-7626
CSA CSA Group	C22.2	1101144
KEMA/KEUR DEKRA Certification B.V.	EN 60947	2190419.01
UL Underwriters Laboratories Inc.	UL 1059	E45172
UL Underwriters Laboratories Inc.	UL 1977	E 45171



Approval	Standard	Certificate Name
EU-Declaration of Confor- mity WAGO GmbH & Co. KG	-	-
Railway WAGO GmbH & Co. KG	-	Z00004428.000

**Approvals for marine applications**



Approval	Standard	Certificate Name
ABS American Bureau of Ship- ping	EN 60947	24-0152298-PDA
DNV GL Det Norske Veritas, Ger- manischer Lloyd	-	TAE00001V2
PRS Polski Rejestr Statków	-	TE/1094/880590/23

<b>Downloads</b>			
<b>Environmental Product Compliance</b>			
<b>Compliance Search</b>			
Environmental Product Compliance 769-231			↓
<b>Documentation</b>			
<b>Bid Text</b>			
769-231	19.02.2019	xml 3.30 KB	↓
769-231	02.10.2017	doc 25.00 KB	↓
<b>CAD/CAE-Data</b>			
<b>CAD data</b>		<b>CAE data</b>	
2D/3D Models 769-231		EPLAN Data Portal 769-231	
↓		↓	
		WSCAD Universe 769-231	
		↓	
		ZUKEN Portal 769-231	
		↓	
<b>1 Compatible Products</b>			
<b>1.1 System counterpart</b>			
<b>1.1.1 Female connector/socket</b>			
<p><b>Item No.: 769-101/022-000</b> 1-conductor female connector, angled; CAGE CLAMP®; 4 mm²; Pin spacing 5 mm; 1-pole; coding finger; 4,00 mm²; gray</p>	<p><b>Item No.: 769-110/145-000</b> 1-conductor female connector; CAGE CLAMP®; 4 mm²; Pin spacing 5 mm; 10-pole; coding finger; Centered locking levers; Strain relief plate; 4,00 mm²; gray</p>	<p><b>Item No.: 769-111/145-000</b> 1-conductor female connector; CAGE CLAMP®; 4 mm²; Pin spacing 5 mm; 11-pole; coding finger; Centered locking levers; Strain relief plate; 4,00 mm²; gray</p>	<p><b>Item No.: 769-112/145-000</b> 1-conductor female connector; CAGE CLAMP®; 4 mm²; Pin spacing 5 mm; 12-pole; coding finger; Centered locking levers; Strain relief plate; 4,00 mm²; gray</p>
<p><b>Item No.: 769-113/145-000</b> 1-conductor female connector; CAGE CLAMP®; 4 mm²; Pin spacing 5 mm; 13-pole; coding finger; Centered locking levers; Strain relief plate; 4,00 mm²; gray</p>	<p><b>Item No.: 769-114/145-000</b> 1-conductor female connector; CAGE CLAMP®; 4 mm²; Pin spacing 5 mm; 14-pole; coding finger; Centered locking levers; Strain relief plate; 4,00 mm²; gray</p>	<p><b>Item No.: 769-115/145-000</b> 1-conductor female connector; CAGE CLAMP®; 4 mm²; Pin spacing 5 mm; 15-pole; coding finger; Centered locking levers; Strain relief plate; 4,00 mm²; gray</p>	<p><b>Item No.: 769-101</b> 1-conductor female connector; CAGE CLAMP®; 4 mm²; Pin spacing 5 mm; 1-pole; coding finger; 4,00 mm²; gray</p>
<p><b>Item No.: 769-101/141-000</b> 1-conductor female connector; CAGE CLAMP®; 4 mm²; Pin spacing 5 mm; 1-pole; coding finger; Centered locking levers; Strain relief plate; 4,00 mm²; gray</p>	<p><b>Item No.: 769-102/142-000</b> 1-conductor female connector; CAGE CLAMP®; 4 mm²; Pin spacing 5 mm; 2-pole; coding finger; Centered locking levers; Strain relief plate; 4,00 mm²; gray</p>	<p><b>Item No.: 769-103/142-000</b> 1-conductor female connector; CAGE CLAMP®; 4 mm²; Pin spacing 5 mm; 3-pole; coding finger; Centered locking levers; Strain relief plate; 4,00 mm²; gray</p>	<p><b>Item No.: 769-104/143-000</b> 1-conductor female connector; CAGE CLAMP®; 4 mm²; Pin spacing 5 mm; 4-pole; coding finger; Centered locking levers; Strain relief plate; 4,00 mm²; gray</p>
<p><b>Item No.: 769-105/143-000</b> 1-conductor female connector; CAGE CLAMP®; 4 mm²; Pin spacing 5 mm; 5-pole; coding finger; Centered locking levers; Strain relief plate; 4,00 mm²; gray</p>	<p><b>Item No.: 769-106/144-000</b> 1-conductor female connector; CAGE CLAMP®; 4 mm²; Pin spacing 5 mm; 6-pole; coding finger; Centered locking levers; Strain relief plate; 4,00 mm²; gray</p>	<p><b>Item No.: 769-107/144-000</b> 1-conductor female connector; CAGE CLAMP®; 4 mm²; Pin spacing 5 mm; 7-pole; coding finger; Centered locking levers; Strain relief plate; 4,00 mm²; gray</p>	<p><b>Item No.: 769-108/144-000</b> 1-conductor female connector; CAGE CLAMP®; 4 mm²; Pin spacing 5 mm; 8-pole; coding finger; Centered locking levers; Strain relief plate; 4,00 mm²; gray</p>

1.1.1 Female connector/socket



**Item No.: 769-109/144-000**  
 1-conductor female connector; CAGE CLAMP®; 4 mm<sup>2</sup>; Pin spacing 5 mm; 9-pole; coding finger; Centered locking levers; Strain relief plate; 4,00 mm<sup>2</sup>; gray

**Item No.: 769-121**  
 2-conductor female connector; CAGE CLAMP®; 4 mm<sup>2</sup>; Pin spacing 5 mm; 1-pole; coding finger; 4,00 mm<sup>2</sup>; gray

1.2 Required Accessories

1.2.1 End plate

1.2.1.1 End plate



**Item No.: 769-307**  
 End and intermediate plate; 1.1 mm thick; gray

**Item No.: 769-308**  
 End and intermediate plate; 1.1 mm thick; orange

1.3 Optional Accessories

1.3.1 Coding

1.3.1.1 Coding



**Item No.: 769-435**  
 Coding pin; for coding of female plugs; for carrier terminal blocks / male connectors; orange

1.3.2 Cover

1.3.2.1 Cover



**Item No.: 769-438**  
 Pin cover; with marker slot for miniature WSB; gray

**Item No.: 769-439**  
 Pin cover; with marker slot for miniature WSB; orange

1.3.3 DIN-rail

1.3.3.1 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

**1.3.3.1 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

**1.3.4 Ferrule**

**1.3.4.1 Ferrule**



**Item No.: 216-301**  
Ferrule; Sleeve for 0.25 mm<sup>2</sup> / AWG 24; insulated; electro-tin plated; yellow

**Item No.: 216-302**  
Ferrule; Sleeve for 0.34 mm<sup>2</sup> / 22 AWG; insulated; electro-tin plated; light turquoise

**Item No.: 216-201**  
Ferrule; Sleeve for 0.5 mm<sup>2</sup> / 20 AWG; insulated; electro-tin plated; electrolytic copper; acc. to DIN 46228, Part 4/09.90; white

**Item No.: 216-101**  
Ferrule; Sleeve for 0.5 mm<sup>2</sup> / AWG 22; un-insulated; electro-tin plated; silver-colored



**Item No.: 216-202**  
Ferrule; Sleeve for 0.75 mm<sup>2</sup> / 18 AWG; insulated; electro-tin plated; gray

**Item No.: 216-102**  
Ferrule; Sleeve for 0.75 mm<sup>2</sup> / AWG 20; un-insulated; electro-tin plated; silver-colored

**Item No.: 216-203**  
Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; insulated; electro-tin plated; red

**Item No.: 216-103**  
Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; un-insulated; electro-tin plated



**Item No.: 216-204**  
Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; un-insulated; electro-tin plated; black

**Item No.: 216-104**  
Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; un-insulated; electro-tin plated; silver-colored

**Item No.: 216-206**  
Ferrule; Sleeve for 2.5 mm<sup>2</sup> / AWG 14; insulated; electro-tin plated; blue

**1.3.5 Installation**

**1.3.5.1 Mounting accessories**



**Item No.: 209-106**  
Mounting carrier; for isolated mounting on DIN 35 rails; gray

**Item No.: 249-116**  
Screwless end stop; 6 mm wide; for DIN-rail 35 x 15 and 35 x 7.5; gray

**1.3.6 Insulation stop**

**1.3.6.1 Insulation stop**



**Item No.: 769-470**  
Insulation stop; 0.08 - 0.2 mm<sup>2</sup> "s" (0.14 mm<sup>2</sup> "f-st"); 5 pieces/strip; white

**Item No.: 769-471**  
Insulation stop; 0.25 - 0.5 mm<sup>2</sup>; 5 pieces/strip; light gray

**Item No.: 769-472**  
Insulation stop; 0.75 - 1 mm<sup>2</sup>; 5 pieces/strip; dark gray

### 1.3.7 Jumper

#### 1.3.7.1 Jumper



**Item No.: 280-402**  
Jumper; insulated; gray



**Item No.: 280-409**  
Jumper; insulated; gray



**Item No.: 780-452**  
Staggered jumper; from 1 to 2; insulated; gray



**Item No.: 780-453**  
Staggered jumper; from 1 to 3; insulated; gray



**Item No.: 780-454**  
Staggered jumper; from 1 to 4; insulated; gray



**Item No.: 780-455**  
Staggered jumper; from 1 to 5; insulated; gray



**Item No.: 780-456**  
Staggered jumper; from 1 to 6; insulated; gray



**Item No.: 780-457**  
Staggered jumper; from 1 to 7; insulated; gray



**Item No.: 780-458**  
Staggered jumper; from 1 to 8; insulated; gray

### 1.3.8 Marking

#### 1.3.8.1 Marker



**Item No.: 2009-145**  
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white



**Item No.: 248-501**  
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; white

### 1.3.9 Protective warning marker

#### 1.3.9.1 Cover



**Item No.: 280-415**  
Protective warning marker; for 5 terminal blocks; with high-voltage symbol, black; yellow

### 1.3.10 Push-in type wire jumper

#### 1.3.10.1 Jumper



**Item No.: 249-126**  
Push-in type wire jumper; 0.75 mm<sup>2</sup>; insulated; 110 mm long; black



**Item No.: 249-123**  
Push-in type wire jumper; 0.75 mm<sup>2</sup>; insulated; 180 mm long; black



**Item No.: 249-127**  
Push-in type wire jumper; 0.75 mm<sup>2</sup>; insulated; 250 mm long; black



**Item No.: 249-125**  
Push-in type wire jumper; insulated; 60 mm long; black

### 1.3.11 Test and measurement

#### 1.3.11.1 Testing accessories



**Item No.: 280-419**

Spacer module; modular; bridging commoned terminal blocks; gray



**Item No.: 280-404**

Test plug adapter; 5 mm wide; for test plug (2.3 mm Ø); suitable for 1.5 mm<sup>2</sup> - 4 mm<sup>2</sup> tbs; gray



**Item No.: 280-418**

Test plug module; modular; suitable for all WAGO 280 and 780 Series rail-mounted terminal blocks with jumper slots in the current bar; gray



**Item No.: 210-136**

Test plug; 2 mm Ø; with 500 mm cable; red

### 1.3.12 Tool

#### 1.3.12.1 Operating tool

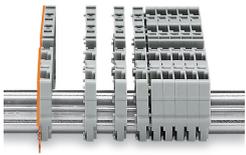


**Item No.: 210-720**

Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured

## Installation Notes

### Installation

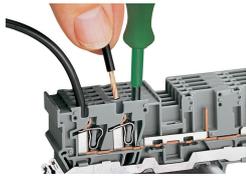


Snap individual carrier terminal blocks onto the DIN-rail and slide together.



Open the assembly by laterally sliding a block via operating tool and remove terminal block via release lever.

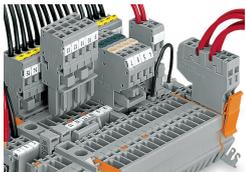
### Conductor termination



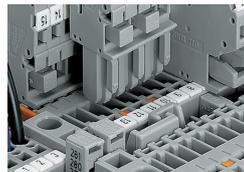
**CAGE CLAMP® connection**

Carrier terminal block: Insert/remove conductor via operating tool (3.5 x 0.5 mm blade).

### Commoning



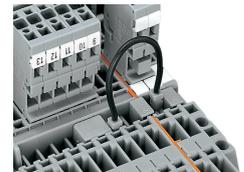
Commoning with adjacent or staggered jumpers. Push jumpers down until fully inserted.



Commoning carrier terminal blocks via staggered jumpers.

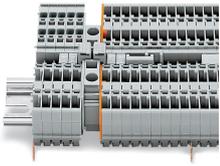


Commoning a 2-conductor female plug via staggered jumper and carrier terminal blocks via adjacent jumpers.



Commoning carrier terminal blocks via push-in type wire jumpers or adjacent jumpers – even over an intermediate plate.

## Commoning



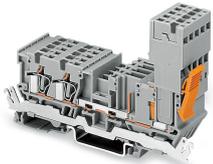
Commoning "supply terminal blocks" (up to 10 mm<sup>2</sup>/8 AWG) with carrier terminal blocks via step-down jumpers.

## Coding

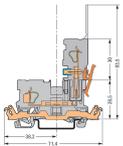


Snap coding pin in proper direction on carrier terminal block.  
Shown: Coding pin removal from carrier terminal block.

## Locking system



Securing a female plug via locking lever on the terminal block side.



Carrier terminal block with shield contact