

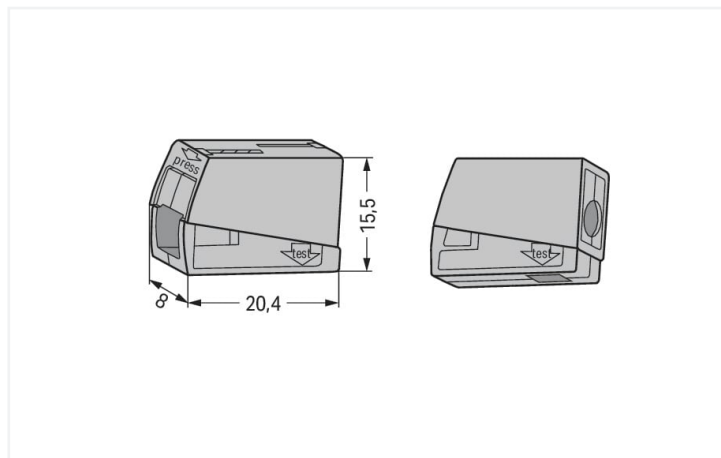
## Data Sheet | Item Number: 224-101

Lighting connector; push-button on lighting side; Lighting side: for all conductor types; Inst. side: for solid conductors; 224 Series; max. 2.5 mm<sup>2</sup>; Surrounding air temperature: max 60°C; 2,50 mm<sup>2</sup>; gray

<https://www.wago.com/224-101>



Color: ■ gray



Dimensions in mm

### Notes

Safety Information

in grounded power lines

### Electrical data

Ratings per	EN 60664		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Nominal voltage	-	-	400 V
Rated surge voltage	-	-	4 kV
Rated current	-	-	24 A

### Connection data

Clamping units	2
Total number of potentials	1

#### Connection 1

Connection type 1	Installation side
Connection technology	PUSH WIRE®
Number of connection points	1
Actuation type	Push-in
Connectable conductor materials	Copper Aluminum

### Connection 1

Connectable conductor materials (note)	<p><b>Terminating Aluminum Conductors (Not for use in North America)</b></p> <p>WAGO spring clamp terminal blocks are suitable for solid aluminum conductors up to 4 mm<sup>2</sup>/12 AWG if WAGO "Alu-Plus" Contact Paste <a href="#">249-130</a> is used for termination.</p>
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"Alu-Plus" Contact Paste Advantages:

- Automatically destroys the oxide film during clamping.
- Prevents fresh oxidation at the clamping point.
- Prevents electrolytic corrosion between aluminum and copper conductors (in the same terminal block).
- Provides long-term protection against corrosion.

Using terminal blocks with CAGE CLAMP® Spring Pressure Connection Technology, **aluminum conductors must first be cleaned with a blade** and then immediately be inserted into the clamping units filled with "Alu-Plus" Contact Paste.

For spring clamp connections with PUSH WIRE® connection technology, **WAGO recommends that the aluminum conductor first be cleaned** and then immediately inserted into the clamping unit filled with "Alu-Plus" contact paste.

It is also possible to apply WAGO "Alu-Plus" **additionally** on the whole surface of the aluminum conductor before termination.

Please note that the nominal currents must be adapted to the reduced conductivity of the aluminum conductors::  
2.5 mm<sup>2</sup> = 16 A  
4 mm<sup>2</sup> = 22 A

Solid conductor	1 ... 2.5 mm <sup>2</sup> / 14 ... 12 AWG
Strip length	9 ... 11 mm / 0.35 ... 0.43 inches
Wiring direction	Side-entry wiring

### Connection 2

Connection type 2	Lighting side
Connection technology 2	CAGE CLAMP®
Number of connection points 2	1
Solid conductor 2	0.5 ... 2.5 mm <sup>2</sup> / 20 ... 16 AWG
Fine-stranded conductor 2	0.5 ... 2.5 mm <sup>2</sup> / 20 ... 16 AWG

### Physical data

Width	8 mm / 0.315 inches
Height	15.5 mm / 0.61 inches
Depth	20.4 mm / 0.803 inches

### Material data

Note (material data)	<a href="#">Information on material specifications can be found here</a>
Color	gray
Fire load	0.04 MJ
Weight	1.8 g

### Environmental requirements

Ambient temperature (operation)	+60 °C
Continuous operating temperature	105 °C

### Commercial data

eCl@ss 10.0	27-14-11-03
eCl@ss 9.0	27-14-11-03
ETIM 8.0	EC000446
ETIM 7.0	EC000447
PU (SPU)	1000 (100) pcs
Packaging type	Box
Country of origin	CH
GTIN	4044918583817
Customs tariff number	85369010000

### Environmental Product Compliance

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

#### General approvals



Approval	Standard	Certificate Name
CSA DEKRA Certification B.V.	C22.2	1053495
UL UL International Germany GmbH	UL 486C	E69654
UL UL International Germany GmbH	EN 60998	CCA-2617-A1
UL UL International Germany GmbH	EN 60998	D-05895-A1 (EN60998-1 EN60998-2-2)
VDE VDE Prüf- und Zertifizierungsinstitut	EN 60998	40022792

#### Declarations of conformity and manufacturer's declarations

Approval	Standard	Certificate Name
EU-Declaration of Conformity WAGO GmbH & Co. KG	-	-
UK-Declaration of Conformity WAGO GmbH & Co. KG	-	-

### Approvals for marine applications



Approval	Standard	Certificate Name
ABS American Bureau of Shipping	-	18-HG1755093-PDA
BV Bureau Veritas S.A.	EN 60998	11914/D0 BV
DNV GL Det Norske Veritas, Germanischer Lloyd	EN 60998	TAE000015T
LR Lloyds Register	EN 60998	LR22207029TA

**Downloads**

**Environmental Product Compliance**

Compliance Search			
Environmental Product Compliance 224-101			↓

**Documentation**

Bid Text			
224-101	19.02.2019	xml 3.44 KB	↓
224-101	21.02.2019	docx 15.52 KB	↓

**CAD/CAE-Data**

CAD data	
2D/3D Models 224-101	↓

CAE data	
EPLAN Data Portal 224-101	↓
WSCAD Universe 224-101	↓
ZUKEN Portal 224-101	↓

**1 Compatible Products**

**1.1 Optional Accessories**

**1.1.1 Tool**

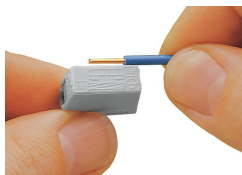
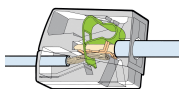
**1.1.1.1 "Alu-Plus" contact paste**



[Item No.: 249-130](#)  
Syringe; Contents: 20 ml Alu-Plus contact paste

**Installation Notes**

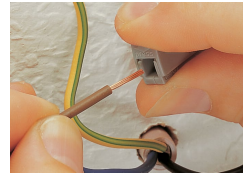
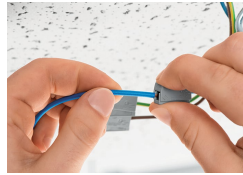
**Conductor termination**



Lighting Connectors (2.5 mm²), 224 Series

Strip conductor to 9 ... 11 mm (0.35 ... 0.43 inch).

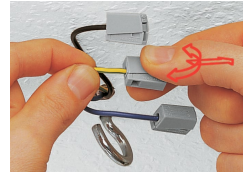
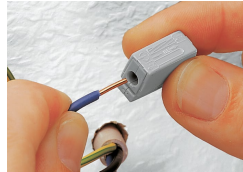
Conductor termination



To connect: Press button fully, insert stripped conductor into square entry and release.

To remove: Press button and withdraw conductor.

Conductor termination



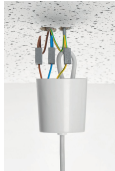
To connect: Insert stripped solid conductor into circular entry and push until it hits the backstop.

To remove: Hold conductor to be removed and twist alternately left and right while slightly pulling the connector.

Testing



Testing via separate test ports.



Connecting solid conductors with fine-stranded conductors via lighting connectors (224-101).