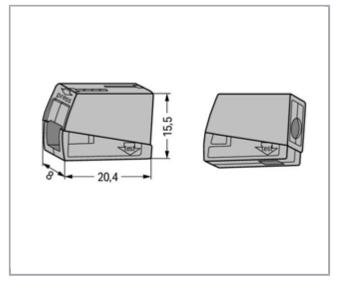
# Data sheet | Item number: 224-101

Lighting connector; push-button on lighting side; Lighting side: for all conductor types; Inst. side: for solid conductors; 224 Series; max. 2.5 mm²; Surrounding air temperature: max 60°C; 2,50 mm²; gray







#### Item description

#### Note:

#### **Terminating Aluminum Conductors**

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 is used for termination.

"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.

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::

Subject to changes. Please also observe the further product documentation!



2.5 mm² = 16 A 4 mm² = 22 A Safety information 1: in grounded power lines

# Data

#### **Electrical data**

# Ratings per IEC/EN 60664-1

Ratings per	EN 60664
Nominal voltage (II/2)	400 V
Rated surge voltage (II/2)	4 kV
Rated current	24 A
Legend (ratings)	(II / 2) ≙ Overvoltage category II / Pollution degree 2

### Connection data

Connection type (1)	Installation side
Connection technology	PUSH WIRE <sup>®</sup>
Number of connection points (connection type)	1
Actuation type	Push-in
Connectable conductor materials	Copper Aluminum
Solid conductor	1 2.5 mm² / 14 12 AWG
Strip length	9 11 mm / 0.35 0.43 inch
Connection type 2	Lighting side
Connection technology 2	CAGE CLAMP <sup>®</sup>
Number of connection points	1
Solid conductor 2	0.5 2.5 mm² / 20 16 AWG
Fine-stranded conductor 2	0.5 2.5 mm² / 20 16 AWG
Total number of connection points	2
Total number of potentials	1
Wiring type	Side-entry wiring

# **Geometrical Data**

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



### **Material Data**

Color	gray
Fire load	0.041 MJ
Weight	1.8 g

# **Environmental Requirements**

Surrounding air temperature (operation)	60 60 °C
Continuous operating temperature	105 105 ℃

## Commercial data

Packaging type	BOX
Country of origin	СН
GTIN	4044918583817
Customs tariff number	85369010000

# Approvals / Certificates

### Country specific Approvals

Logo	Approval	Additional Approval Text	Certificate name
<b>(P)</b>	CSA DEKRA Certification B.V.	C22.2	1053495



VDEEN 6099840022792VDE Prüf- und Zertifizierungsinstitut40022792

#### Ship Approvals

Logo	Approval	Additional Approval Text	Certificate name
ABS.	ABS American Bureau of Shipping	-	18- HG1755093- PDA
<b>D</b>	BV Bureau Veritas S.A.	EN 60998	11914/C0 BV

Subject to changes. Please also observe the further product documentation!





**DNV GL**Det Norske Veritas, Germanischer Lloyd

EN 60998

TAE000015T



**LR** Lloyds Register EN 60998

04/20013 (E8)

Certificate

#### **UL-Approvals**

Logo	Approval	Additional Approval Text	name
(D)	UL UL International Germany GmbH	EN 60998	D-05895- A1 (EN60998- 1 EN60998- 2-2)
CCA	UL UL International Germany GmbH	EN 60998	CCA- 2617-A1
LISTED WIRE CONNECTOR	<b>UL</b> UL International Germany GmbH	UL 486C	E69654

# Compatible products

#### General accessories



Item no.: 249-130

Syringe; Contents: 20 ml Alu-Plus contact paste

# Downloads CAD/CAE-Data

CAD data

2D/3D Models 224-101

CAE data

EPLAN Data Portal 224-101

Subject to changes. Please also observe the further product documentation!

Web: https://www.bolenscontrol.com/ - Phone: (800) 658-5241 - Email: sales@bolenscontrol.com

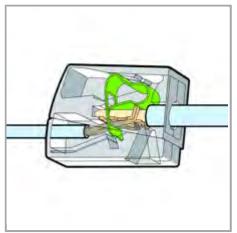


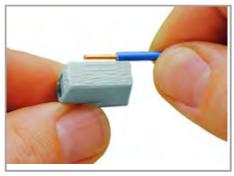
WSCAD Universe 224-101

ZUKEN Portal 224-101

# **Installation Notes**

#### Conductor termination

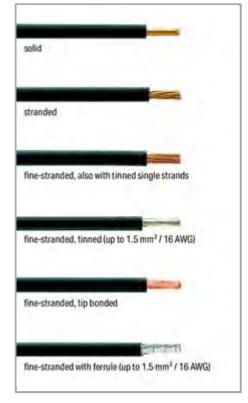




Strip conductor to 9  $\dots$  11 mm (0.35  $\dots$  0.43 inch).

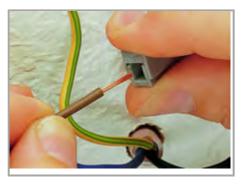
Lighting Connectors, 2.5 mm² (12 AWG), 224 Series







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

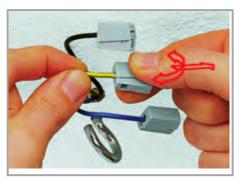


To remove: Press button and withdraw conductor.





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 finestranded conductors via lighting connectors (224-101).