

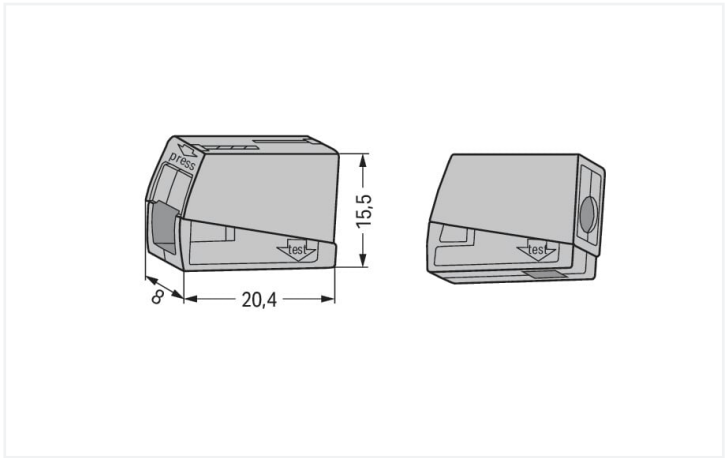
Data Sheet | Item Number: 224-101

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

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



Color: ■ gray



Dimensions in mm

Lighting connector, 224 Series, PUSH WIRE®

Our lighting connector (item number 224-101) is the perfect way to connect conductors quickly and easily. WAGO's 224 Series lighting connectors simplify the connection of fine-stranded and solid conductors. Connecting lights is a straightforward task—for quick, easy, and reliable connections. Wherever you need this type of connection, e.g., in office buildings, homes, or other locations, our 224 Series is sure to impress. Rated current and voltage are key factors to consider when selecting a splicing connector, as they determine the product's suitability for different applications. This product has a rated voltage of 400 V and a rated current of 24 A, making it suitable for high-load applications. Conductors should only be connected to this lighting connector if their strip length is between 9 mm and 11 mm. This product incorporates conductor terminals and utilizes PUSH WIRE® and CAGE CLAMP®. Our PUSH WIRE® connection uses the stiffness of the conductor to overcome the clamping spring's contact force, allowing you to clamp the conductor in place more quickly and easily. Our CAGE CLAMP® connection offers a convenient and maintenance-free way to connect all types of conductors. You do not need to prepare the conductor in any way, such as crimping ferrules. Dimensions: 8 x 15.5 x 20.4 mm (width x height x depth). Depending on the type of conductor, this lighting connector is suitable for conductor cross sections ranging from 1 mm² to 2.5 mm² on one side and for conductor cross sections from 0.5 mm² to 2.5 mm² on the other side.

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	<div>Connection 1</div> <div><div>Connection type 1</div><div>Installation side</div></div> <div><div>Connection technology</div><div>PUSH WIRE®</div></div> <div><div>Number of connection points</div><div>1</div></div> <div><div>Actuation type</div><div>Push-in</div></div> <div><div>Connectable conductor materials</div><div>Copper Aluminum</div></div>
Total number of potentials	1	



Connection 1	
Connectable conductor materials (note)	<p>Terminating Aluminum Conductors (not for use in North America) WAGO Spring-Clamp Terminal Blocks are also suitable for solid aluminum conductors up to 4 mm²/12 AWG if WAGO “Alu-Plus” Contact Paste 249-130 is used for termination.</p> <p>“Alu-Plus” Contact Paste Advantages:</p> <ul style="list-style-type: none">• 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. <p>Using terminal blocks with CAGE CLAMP® Spring Pressure Connection Technology, aluminum conductors must first be cleaned with a blade and then immediately inserted into the clamping units filled with “Alu-Plus” contact paste.</p> <p>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.</p> <p>It is also possible to apply WAGO “Alu-Plus” additionally on the whole surface of the aluminum conductor before termination.</p> <p>Please note that the nominal currents must be adapted to the reduced conductivity of the aluminum conductors:: 2.5 mm² = 16 A 4 mm² = 22 A</p>
Solid conductor	1 ... 2.5 mm² / 14 ... 12 AWG
Strip length	9 ... 11 mm / 0.35 ... 0.43 inches
Wiring direction	Side-entry wiring

Connection 2	
Connection type	Lighting side
Connection technology	CAGE CLAMP®
Number of connection points	1
Solid conductor	0.5 ... 2.5 mm² / 20 ... 16 AWG
Fine-stranded conductor	0.5 ... 2.5 mm² / 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)	Information on material specifications can be found here
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 9.0	EC000446
ETIM 8.0	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

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

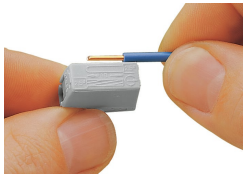
1.1.1.1 "Alu-Plus" contact paste



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

Installation Notes

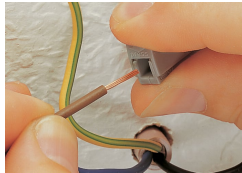
Conductor termination



Lighting Connectors (2.5 mm²), 224 Series

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

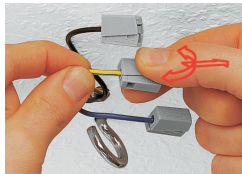
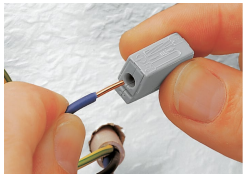
Conductor termination



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

To remove: Press button and withdraw conductor.

Conductor termination



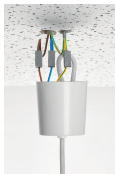
To connect: Insert stripped solid conductor into circular entry and push until it hits the backstop.

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).