Data Sheet | Item Number: 224-104

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 75°C; 2,50 mm²; black

https://www.wago.com/224-104



Color: ■ black

Lighting connector, 224 Series, Push-in

This lighting connector (item number 224-104) is designed for simple and secure connections. WAGO's 224 Series lighting connectors simplify the connection of fine-stranded and solid conductors. Connecting lights is a piece of cake—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. Ensure that the strip lengths are between 9 and 11 mm when connecting conductors to this lighting connector. Rated current and voltage are important parameters when choosing a splicing connector, as they indicate how the product can be used. This product has a rated voltage of 400 V and a rated current of 24 A, making it suitable for high-load applications. This product features conductor terminals and utilizes PUSH WIRE® as well as CAGE CLAMP®. Our PUSH WIRE® connection is the quick and simple method for connecting solid conductors. Our highly-rated and maintenance-free CAGE CLAMP® connection makes it easy to connect all conductor types without having to prepare the conductor. For example, you don't need to crimp ferrules. The dimensions are (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 impulse withstand voltage	-	-	4 kV
Rated current	-	-	24 A

General information	
Wiring direction	Side-entry wiring

Connection Data

Clamping units	2
Total number of potentials	1

Connection 1

Connection type	Installation side
Connection technology	PUSH WIRE®
Number of connection points	1
Actuation type	Push-in
Connectable conductor materials	Copper Aluminum
Connectable conductor materials (note)	**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 Aluminum Contact Paste 249-130 is used for termination. Aluminum 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 inserted into the clamping units filled with aluminum 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 aluminum contact paste. It is also possible to apply WAGO Aluminum Contact Paste **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 mm² = 16 A 4 mm² = 22 A
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

Continued on next page

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	black
Fire load	0.04 MJ
Weight	2.2 g

Environmental requirements

Ambient temperature (operation)	+75 °C
Continuous operating temperature	120 °C

Commercial data

PU (SPU)	100 pcs
Packaging type	Box
Country of origin	CH
GTIN	4044918584050
Customs tariff number	85369010000

Product Classification

UNSPSC	39121409
eCl@ss 10.0	27-14-11-03
eCl@ss 9.0	27-14-11-03
ETIM 9.0	EC000446
ETIM 10.0	EC000446
ECCN	NO US CLASSIFICATION

Environmental Product Compliance

RoHS Compliance Status	Compliant,No Exemption

Approvals / Certificates

General approvals

Approval	Standard	Certificate Name
CSA DEKRA Certification B.V.	C22.2	154112
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	-	-

Continued on next page

Approvals for marine applications



Approval	Standard	Certificate Name
ABS American Bureau of Shipping	-	23-2417173-PDA
LR Lloyds Register	EN 60998	LR22207029TA
PRS Polski Rejestr Statków	EN 60998	TE/1093/880590/23

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 224-104

Documentation

Bid Text

224-104	19.02.2019	xml 3.49 KB
224-104	21.02.2019	docx 15.52 KB

CAD/CAE-Data

CAD data

2D/3D Models 224-104

CAE data

EPLAN Data Portal 224-104

WSCAD Universe 224-104

ZUKEN Portal 224-104

Continued on next page

1 Compatible Products

1.1 Optional Accessories

1.1.1 Tool

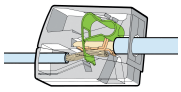
1.1.1.1 Aluminum contact paste



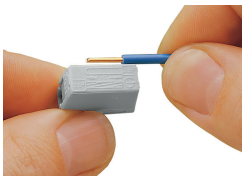
Item No.: 249-130
Syringe; Contents: Aluminum Contact Paste, 20 ml

Installation Notes

Conductor termination



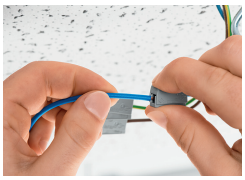
Lighting Connectors (2.5 mm²), 224 Series



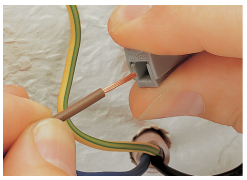
Strip conductor to 9 … 11 mm (0.35 … 0.43 inch).

Conductor termination





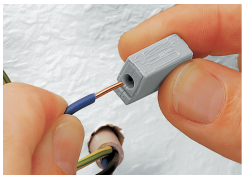
To connect: Press button fully, insert stripped conductor into square entry and release.



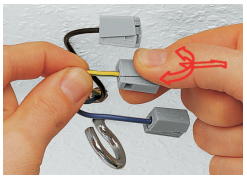
To remove: Press button and withdraw conductor.

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.

Continued on next page