

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

www.wago.com/224-104



Item description

Note:

Terminating Aluminum Conductors

WAGO spring clamp terminal blocks are suitable for solid aluminum conductors up to 4 mm²/12 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::

2.5 mm² = 16 A

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

WAGO Kontakttechnik GmbH & Co. KG
Hansastr. 27
32423 Minden
Phone: +49571 887-0 | Fax: +49571 887-169
Email: info.de@wago.com | Web: www.wago.com

Do you have any questions about our products?
We are always happy to take your call at +49 (571) 887-44222.

4 mm² = 22 A**Safety information 1:**

in grounded power lines

Data**Electrical data****Ratings per IEC/EN 60664-1**

Ratings per	EN 60664
Rated voltage (II / 2)	400 V
Rated impulse 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 [®]
Actuation type	Push-in
Connectable conductor materials	Copper Aluminum
Solid conductor	1 ... 2,5 mm ² / 14 ... 12 AWG
Strip length	9 ... 11 mm / 0.35 ... 0.43 inch
Connection type (2)	Lighting side
Connection technology 2	CAGE CLAMP [®]
Number of connection points	1
Solid conductor (2)	0,5 ... 2,5 mm ² / 20 ... 16 AWG
Fine-stranded conductor (2)	0,5 ... 2,5 mm ² / 20 ... 16 AWG
Total number of connection points	2
Total number of potentials	1
Type of wiring	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

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

WAGO Kontakttechnik GmbH & Co. KG
 Hansastr. 27
 32423 Minden
 Phone: +49571 887-0 | Fax: +49571 887-169
 Email: info.de@wago.com | Web: www.wago.com

Do you have any questions about our products?
 We are always happy to take your call at +49 (571) 887-44222.

Material Data

Color	black
Fire load	0.051 MJ
Weight	2.2 g

Environmental Requirements



Continuous operating temperature	120 °C
----------------------------------	--------

Commercial data



Packaging type	BOX
Country of origin	CH
GTIN	4044918584050
Customs Tariff No.	85369010000

Approvals / Certificates

Country specific Approvals

Logo	Approval	Additional Approval Text	Certificate name
	CSA DEKRA Certification B.V.	C22.2	1053495
	VDE VDE Prüf- und Zertifizierungsinstitut	EN 60998	40022792

Ship Approvals

Logo	Approval	Additional Approval Text	Certificate name
	ABS American Bureau of Shipping	-	18- HG1755093- PDA
	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)

UL-Approvals

Logo	Approval	Additional Approval Text	Certificate name
	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)

Counterpart

Compatible products

General accessories

Item no.: 249-130
Syringe; Contents: 20 ml Alu-Plus contact paste

www.wago.com/249-130

Downloads

Documentation

Additional Information

Technical explanations

Apr 3, 2019

pdf
2.1 MB

Download

CAD/CAE-Data

CAD data

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

WAGO Kontakttechnik GmbH & Co. KG
Hansastr. 27
32423 Minden
Phone: +49571 887-0 | Fax: +49571 887-169
Email: info.de@wago.com | Web: www.wago.com

Do you have any questions about our products?
We are always happy to take your call at +49 (571) 887-44222.

2D/3D Models 224-104

[URL](#)

[Download](#)

CAE data

EPLAN Data Portal 224-104

[URL](#)

[Download](#)

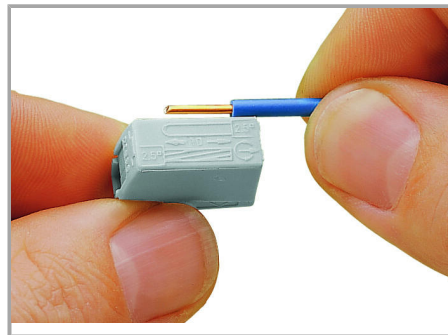
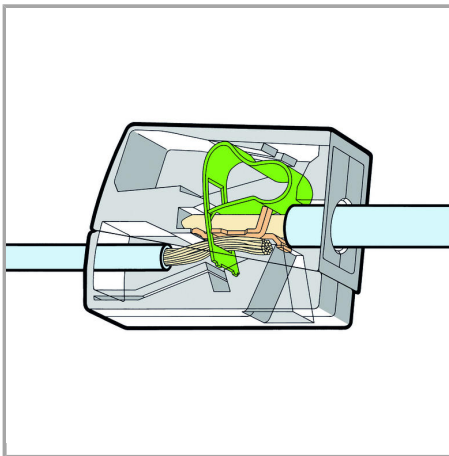
WSCAD Universe 224-104

[URL](#)

[Download](#)

Installation Notes

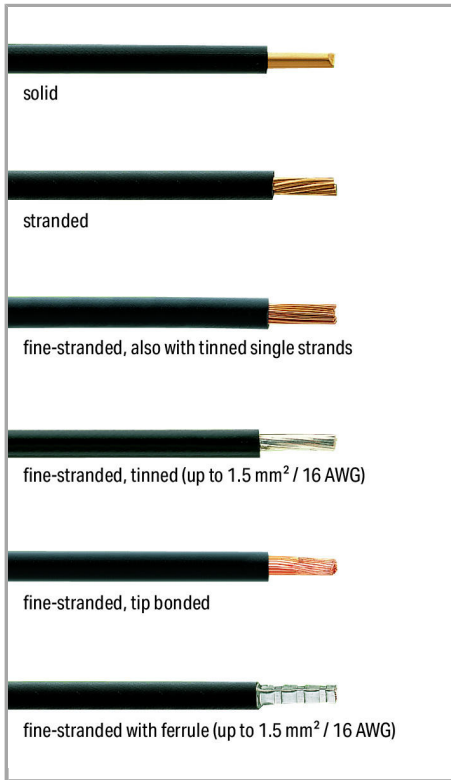
Conductor termination



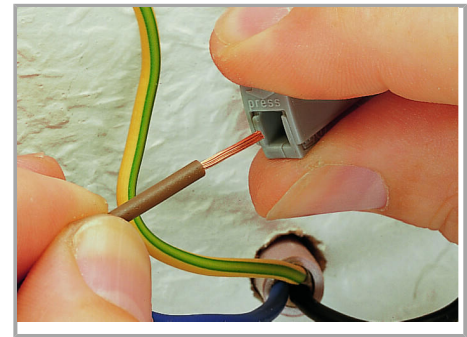
Strip conductor to 9 ... 11 mm (0.35 ... 0.43 inch).

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

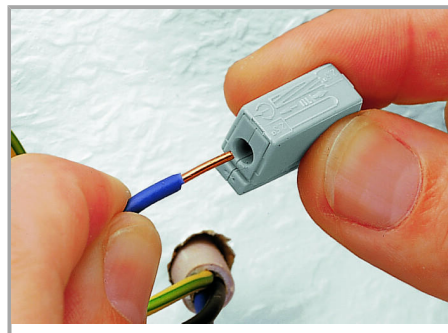
Subject to changes. Please also observe the further product documentation!



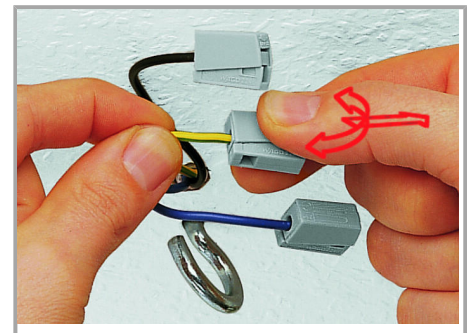
To connect: Press button fully, insert stripped conductor into square entry and release.



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

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



Testing via separate test ports.

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

WAGO Kontakttechnik GmbH & Co. KG
Hansastr. 27
32423 Minden
Phone: +49571 887-0 | Fax: +49571 887-169
Email: info.de@wago.com | Web: www.wago.com

Do you have any questions about our products?
We are always happy to take your call at +49 (571) 887-44222.