

## Data sheet | Item number: 224-114

2-conductor 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 75°C; 2,50 mm<sup>2</sup>; black

<https://www.wago.com/224-114>



### Notes

Safety information 1

in grounded power lines

### Electrical data

#### Ratings per IEC/EN

Ratings per	EN 60664
Nominal voltage (U <sub>N</sub> )	400 V
Rated surge voltage (U <sub>s</sub> )	4 kV
Rated current	24 A
Legend (ratings)	(II / 2) $\hat{=}$ Overvoltage category II / Pollution degree 2

### Connection data

Total number of connection points	3
Total number of potentials	1

#### Connection 1

Connection type 1	Installation side
Connection technology	PUSH WIRE®
Number of connection points	2
Actuation type	Push-in
Connectable conductor materials	Copper Aluminum

### Connection 1

Connectable conductor materials (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 [249-130](#) 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.

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> / 16 ... 14 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 ... 14 AWG
Fine-stranded conductor 2	0.5 ... 2.5 mm <sup>2</sup> / 20 ... 16 AWG

### Physical data

Width	9.5 mm / 0.374 inches
Height	15.5 mm / 0.61 inches
Depth	20.5 mm / 0.807 inches

### Material data

Note (material data)	<a href="#">Information on material data can be found here</a>
Color	black
Fire load	0.052 MJ
Weight	2.5 g

### Environmental requirements

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

### Commercial data

eCl@ss 10.0	27-14-11-03
eCl@ss 9.0	27-14-11-03
ETIM 8.0	EC000447
ETIM 7.0	EC000447
PU (SPU)	100 Stück
Packaging type	Box
Country of origin VKOrg Germany	CH
GTIN	4044918583787
Customs tariff number VKOrg Germany	85369010000

### Approvals and certificates

#### Country specific Approvals



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

#### Ship Approvals



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

#### UL-Approvals



Approval	Standard	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)

## Downloads

### Environmental Product Compliance

#### Compliance Search

Environmental Product Compliance 224-114



## Documentation

### Additional Information

Technical Section

pdf  
2142.18 KB



### Bid Text

224-114

19.02.2019

xml  
3.51 KB



224-114

21.02.2019

docx  
15.71 KB



## CAD/CAE-Data

### CAD data

2D/3D Models 224-114



### CAE data

EPLAN Data Portal  
224-114



WSCAD Universe  
224-114



ZUKEN Portal 224-114



## 1 Compatible products

### 1.1 Optional accessories

#### 1.1.1 Tool

##### 1.1.1.1 "Alu-Plus" contact paste

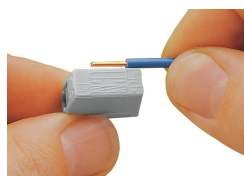
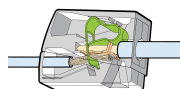


[Item no.: 249-130](#)

Syringe; Contents: 20 ml Alu-Plus contact paste

## Installation notes

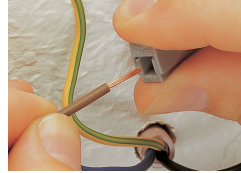
### Conductor termination



Lighting Connectors (2.5 mm<sup>2</sup>), 224 Series

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

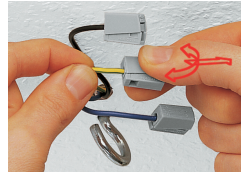
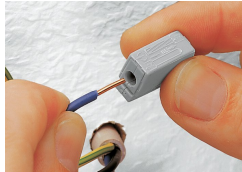
### Conductor termination



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.