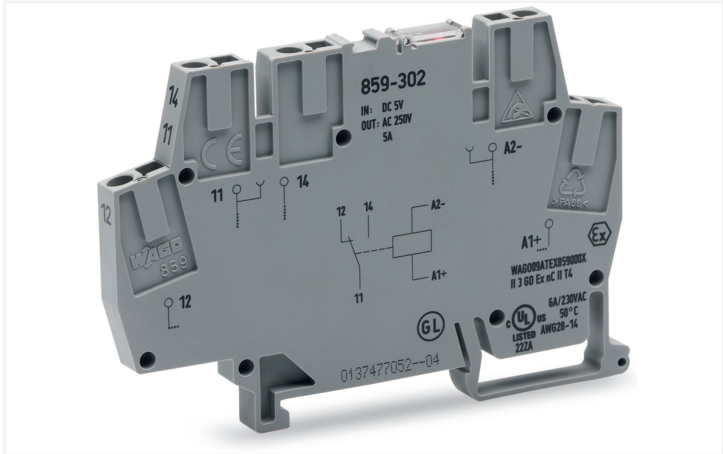


Data Sheet | Item Number: 859-304

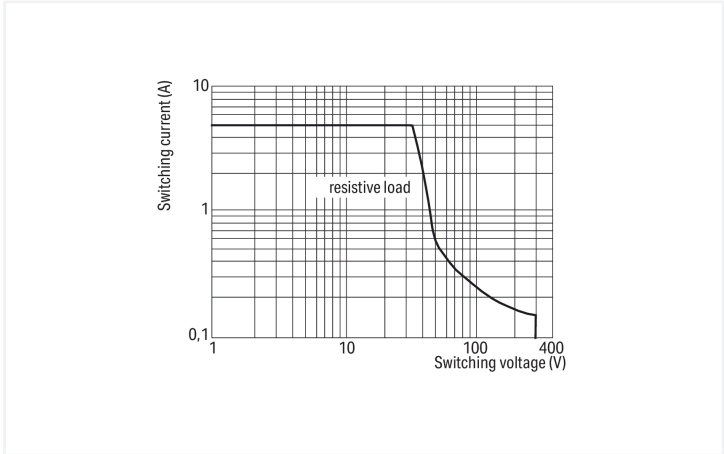
Relay module; Nominal input voltage: 24 VDC; 1 changeover contact; Red status indicator; Module width: 6 mm; 2,50 mm<sup>2</sup>; gray

<https://www.wago.com/859-304>

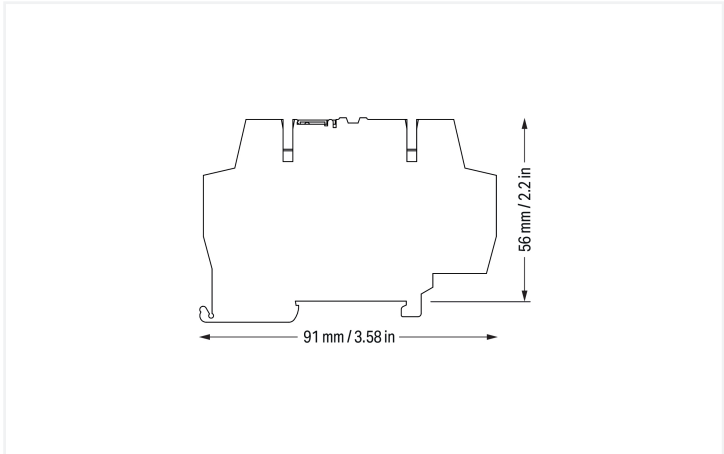
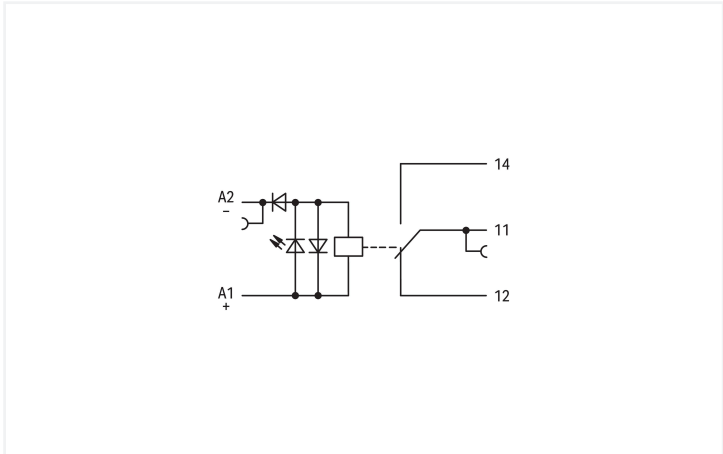


Color: ■ gray

Similar to illustration



DC load limit curve



| Notes |                                                                                                                 |
|-------|-----------------------------------------------------------------------------------------------------------------|
| Note  | To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit. |

| Technical data                 |               |                                          |                                             |
|--------------------------------|---------------|------------------------------------------|---------------------------------------------|
| Control circuit                |               | Load circuit                             |                                             |
| Nominal input voltage $U_N$    | 24 VDC        | Number of changeover/switchover contacts | 1                                           |
| Input voltage range            | -15 ... +20 % | Contact material (relay)                 | AgSnO <sub>2</sub>                          |
| Nominal input current at $U_N$ | 10 mA         | Limiting continuous current              | 5 A                                         |
|                                |               | Inrush current (resistive) max.          | (AC) 20 A / 0.02 s                          |
|                                |               | Switching Voltage, Max.                  | 250 VAC                                     |
|                                |               | Switching power (resistive) max.         | AC 1250 VA; DC (see load limit curve)       |
|                                |               | Utilization category                     | AC-15: 3 A / 250 VAC<br>DC-13: 2 A / 24 VDC |
|                                |               | Recommended minimum load                 | 10 V / 10 mA; 24 V / 1 mA                   |
|                                |               | Pull-in time (typ.)                      | 6 ms                                        |



| Load circuit                                 |                                             |
|----------------------------------------------|---------------------------------------------|
| Drop-out time (typ.)                         | 6 ms                                        |
| Bounce time (typ.)                           | 3.5 ms                                      |
| Electrical life (NO; resistive load; 23 °C)  | 50 x 10 <sup>3</sup> switching operations   |
| Mechanical life                              | 5 x 10 <sup>6</sup> switching operations    |
| Switching frequency with/without load (max.) | 6 min <sup>-1</sup> / 180 min <sup>-1</sup> |

| Signaling        |         |
|------------------|---------|
| Status indicator | Red LED |

| Safety and protection                                  |                                                          |
|--------------------------------------------------------|----------------------------------------------------------|
| Rated Voltage                                          | 300 V                                                    |
| Rated impulse withstand voltage                        | 4 kV                                                     |
| Overvoltage category                                   | III                                                      |
| Pollution degree                                       | 2                                                        |
| Dielectric strength (control/load circuit) (AC, 1 min) | 4 kVrms                                                  |
| Dielectric strength (open contact) (AC, 1 min)         | 1 kVrms                                                  |
| Insulation type (control/load circuit)                 | Reinforced insulation (safe isolation)                   |
| Insulation type (adjacent devices)                     | Reinforced insulation (safe isolation)                   |
| Protection type                                        | IP20; in connected state or when using 859-525 end plate |

| Connection Data                                 |                                              |
|-------------------------------------------------|----------------------------------------------|
| Connection technology                           | CAGE CLAMP®                                  |
| Solid conductor                                 | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 14 AWG |
| Fine-stranded conductor                         | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 14 AWG |
| Fine-stranded conductor; with insulated ferrule | 0.08 ... 1.5 mm <sup>2</sup> / 28 ... 16 AWG |
| Strip length                                    | 5 ... 6 mm / 0.2 ... 0.24 inches             |

| Physical data                     |                      |
|-----------------------------------|----------------------|
| Width                             | 6 mm / 0.236 inches  |
| Height                            | 91 mm / 3.583 inches |
| Depth from upper-edge of DIN-rail | 56 mm / 2.205 inches |

| Mechanical data   |                                       |
|-------------------|---------------------------------------|
| Mounting type     | DIN-35 rail                           |
| Mounting position | horizontal (standing/lying); vertical |

| Material data                      |                                                                          |
|------------------------------------|--------------------------------------------------------------------------|
| Note (material data)               | <a href="#">Information on material specifications can be found here</a> |
| Color                              | gray                                                                     |
| Insulation material (main housing) | Polyamide (PA66)                                                         |
| Material group                     | I                                                                        |
| Flammability class per UL94        | V0                                                                       |
| Fire load                          | 0.473 MJ                                                                 |
| Weight                             | 22.9 g                                                                   |



| Environmental requirements                         |                                          |
|----------------------------------------------------|------------------------------------------|
| Ambient temperature (operation at U <sub>N</sub> ) | -40 ... +50 °C                           |
| Ambient temperature (storage)                      | -40 ... +70 °C                           |
| Processing temperature                             | -25 ... +50 °C                           |
| Temperature range of connection cable              | ≥ (T <sub>ambient</sub> + 20 K)          |
| Relative humidity                                  | 5 ... 95 % (no condensation permissible) |
| Operating altitude (max.)                          | 2000 m                                   |

| Standards and Specifications |                                                           |
|------------------------------|-----------------------------------------------------------|
| Standards/specifications     | EN 61010-2-201<br>EN 61810-1<br>EN 61373<br>UL 508<br>DNV |

| Commercial data       |                          |
|-----------------------|--------------------------|
| Product Group         | 6 (INTERFACE ELECTRONIC) |
| PU (SPU)              | 10 pcs                   |
| Packaging type        | Box                      |
| Country of origin     | CN                       |
| GTIN                  | 4055143606769            |
| Customs tariff number | 85364900990              |

| Product Classification |                      |
|------------------------|----------------------|
| UNSPSC                 | 39122334             |
| eCl@ss 10.0            | 27-37-16-01          |
| eCl@ss 9.0             | 27-37-16-01          |
| ETIM 9.0               | EC001437             |
| ETIM 10.0              | EC001437             |
| ECCN                   | NO US CLASSIFICATION |

| Environmental Product Compliance          |                                                          |
|-------------------------------------------|----------------------------------------------------------|
| CAS-No.                                   | 7439-92-1<br>79-94-7                                     |
| REACH Candidate List Substance            | 2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol<br>Lead |
| RoHS Compliance Status                    | Compliant, No Exemption                                  |
| SCIP notification number (Austria)        | 4ba85e50-d96d-47e2-86d6-681a402eac2e                     |
| SCIP notification number (Belgium)        | 9fb3b5360-9804-4c3f-a0ff-3f693ec30515                    |
| SCIP notification number (Bulgaria)       | a4c119d3-9c19-43b7-956c-1c790aa5df37                     |
| SCIP notification number (Czech Republic) | f0051c41-1633-4c66-981e-032a9f1c03c5                     |
| SCIP notification number (Denmark)        | 195e4ba5-13e3-4ecc-b864-f14dc7cd986d                     |
| SCIP notification number (Finland)        | 8295361c-4356-4b4b-9fb8-867b911dc4e4                     |
| SCIP notification number (France)         | 775b0e0e-d682-4ff9-8068-1728c1ecb1de                     |
| SCIP notification number (Germany)        | c695a9f9-428d-4f51-ad30-aa93b3302780                     |
| SCIP notification number (Hungary)        | fb140cf0-9653-4fd3-8b2b-a80855f8adb0                     |
| SCIP notification number (Italy)          | ef5227da-b944-4c0d-9080-a688f01ac897                     |
| SCIP notification number (Netherlands)    | 8f2e86a0-5c4a-4e06-84e4-d96276e6b220                     |
| SCIP notification number (Poland)         | 13ede835-8ee7-473f-b850-d0d7d631f1b0                     |
| SCIP notification number (Romania)        | c08f9dd6-4168-4bd9-9607-f67cc88a7755                     |
| SCIP notification number (Sweden)         | 4eb049c8-9412-4cd0-be7d-8e6cbded6d95                     |



Approvals / Certificates

General approvals



| Approval                                                  | Standard       | Certificate Name |
|-----------------------------------------------------------|----------------|------------------|
| EAC<br>GZO Almaty Standart                                | TP TC 004/2011 | EAC CoC 03078    |
| UL<br>Underwriters Laboratories Inc. (ORDINARY LOCATIONS) | UL 508         | E175199 Sec.4    |

Declarations of conformity and manufacturer's declarations

| Approval                                           | Standard | Certificate Name |
|----------------------------------------------------|----------|------------------|
| EU-Declaration of Conformity<br>WAGO GmbH & Co. KG | -        | -                |
| UK-Declaration of Conformity<br>WAGO GmbH & Co. KG | -        | -                |

Approvals for marine applications



| Approval                | Standard             | Certificate Name |
|-------------------------|----------------------|------------------|
| DNV<br>DNV Germany GmbH | DNV-CG-0339,Aug.2021 | TAA00001D1       |

Approvals for hazardous areas



| Approval                   | Standard    | Certificate Name                      |
|----------------------------|-------------|---------------------------------------|
| CCC<br>CNEX                | CNCA-C23-01 | 2021312304000982 (Ex ec nC IIC T4 Gc) |
| UKEx<br>WAGO GmbH & Co. KG | EN 60079-0  | UKCA_WA-GO22UKEX007X_ec nC            |

Downloads

Environmental Product Compliance

| Compliance Search                        |
|------------------------------------------|
| Environmental Product Compliance 859-304 |

Documentation

| Bid Text                                      |
|-----------------------------------------------|
| 859-304<br>19.02.2019<br>xml<br>4.47 KB<br>   |
| 859-304<br>20.02.2019<br>docx<br>16.77 KB<br> |
| ausschreiben.de<br>859-304<br>                |

| Instruction Leaflet                                                                  |
|--------------------------------------------------------------------------------------|
| CCC Ex (Additional information)<br>26.04.2023<br>pdf<br>132.68 KB<br>                |
| Relay modules, Optocoupler modules<br>V 2.0.0<br>19.01.2022<br>pdf<br>2066.27 KB<br> |



| CAD/CAE-Data         |                           |
|----------------------|---------------------------|
| CAD data             | CAE data                  |
| 2D/3D Models 859-304 | EPLAN Data Portal 859-304 |
|                      | WSCAD Universe 859-304    |
|                      | ZUKEN Portal 859-304      |

1 Compatible Products

1.1 Optional Accessories

1.1.1 End plate

1.1.1.1 End plate



**Item No.: 859-525**  
End and intermediate plate; 1 mm thick; gray

1.1.1.2 Intermediate plate



**Item No.: 859-525**  
End and intermediate plate; 1 mm thick; gray

1.1.2 Ferrule

1.1.2.1 Ferrule



**Item No.: 216-321**  
Ferrule; Sleeve for 0.25 mm² / AWG 24; insulated; electro-tin plated; yellow



**Item No.: 216-322**  
Ferrule; Sleeve for 0.34 mm² / 22 AWG; insulated; electro-tin plated; light turquoise



**Item No.: 216-221**  
Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; white



**Item No.: 216-222**  
Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; gray



**Item No.: 216-223**  
Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; red



**Item No.: 216-224**  
Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; black

1.1.3 Jumper

1.1.3.1 Jumper



**Item No.: 859-410/000-006**  
Jumper; for jumper slot; 10-way; insulated; blue



**Item No.: 859-410**  
Jumper; for jumper slot; 10-way; insulated; light gray



**Item No.: 859-410/000-005**  
Jumper; for jumper slot; 10-way; insulated; red



**Item No.: 859-410/000-029**  
Jumper; for jumper slot; 10-way; insulated; yellow



**Item No.: 859-402/000-006**  
Jumper; for jumper slot; 2-way; insulated; blue



**Item No.: 859-402**  
Jumper; for jumper slot; 2-way; insulated; light gray



**Item No.: 859-402/000-005**  
Jumper; for jumper slot; 2-way; insulated; red



**Item No.: 859-402/000-029**  
Jumper; for jumper slot; 2-way; insulated; yellow



1.1.3.1 Jumper

|                                                                                                                                                                            |                                                                                                                                                                          |                                                                                                                                                                           |                                                                                                                                                                                |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <br><b>Item No.: 859-403/000-006</b><br>Jumper; for jumper slot; 3-way; insulated; blue   | <br><b>Item No.: 859-403</b><br>Jumper; for jumper slot; 3-way; insulated; light gray   | <br><b>Item No.: 859-403/000-005</b><br>Jumper; for jumper slot; 3-way; insulated; red   | <br><b>Item No.: 859-403/000-029</b><br>Jumper; for jumper slot; 3-way; insulated; yellow   |
| <br><b>Item No.: 859-404/000-006</b><br>Jumper; for jumper slot; 4-way; insulated; blue   | <br><b>Item No.: 859-404</b><br>Jumper; for jumper slot; 4-way; insulated; light gray   | <br><b>Item No.: 859-404/000-005</b><br>Jumper; for jumper slot; 4-way; insulated; red   | <br><b>Item No.: 859-404/000-029</b><br>Jumper; for jumper slot; 4-way; insulated; yellow   |
| <br><b>Item No.: 859-405/000-006</b><br>Jumper; for jumper slot; 5-way; insulated; blue   | <br><b>Item No.: 859-405</b><br>Jumper; for jumper slot; 5-way; insulated; light gray   | <br><b>Item No.: 859-405/000-005</b><br>Jumper; for jumper slot; 5-way; insulated; red   | <br><b>Item No.: 859-405/000-029</b><br>Jumper; for jumper slot; 5-way; insulated; yellow   |
| <br><b>Item No.: 859-406/000-006</b><br>Jumper; for jumper slot; 6-way; insulated; blue   | <br><b>Item No.: 859-406</b><br>Jumper; for jumper slot; 6-way; insulated; light gray   | <br><b>Item No.: 859-406/000-005</b><br>Jumper; for jumper slot; 6-way; insulated; red   | <br><b>Item No.: 859-406/000-029</b><br>Jumper; for jumper slot; 6-way; insulated; yellow   |
| <br><b>Item No.: 859-407/000-006</b><br>Jumper; for jumper slot; 7-way; insulated; blue   | <br><b>Item No.: 859-407</b><br>Jumper; for jumper slot; 7-way; insulated; light gray   | <br><b>Item No.: 859-407/000-005</b><br>Jumper; for jumper slot; 7-way; insulated; red   | <br><b>Item No.: 859-407/000-029</b><br>Jumper; for jumper slot; 7-way; insulated; yellow   |
| <br><b>Item No.: 859-408/000-006</b><br>Jumper; for jumper slot; 8-way; insulated; blue   | <br><b>Item No.: 859-408</b><br>Jumper; for jumper slot; 8-way; insulated; light gray   | <br><b>Item No.: 859-408/000-005</b><br>Jumper; for jumper slot; 8-way; insulated; red   | <br><b>Item No.: 859-408/000-029</b><br>Jumper; for jumper slot; 8-way; insulated; yellow   |
| <br><b>Item No.: 859-409/000-006</b><br>Jumper; for jumper slot; 9-way; insulated; blue | <br><b>Item No.: 859-409</b><br>Jumper; for jumper slot; 9-way; insulated; light gray | <br><b>Item No.: 859-409/000-005</b><br>Jumper; for jumper slot; 9-way; insulated; red | <br><b>Item No.: 859-409/000-029</b><br>Jumper; for jumper slot; 9-way; insulated; yellow |

1.1.4 Marking

1.1.4.1 Marker

|                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                        |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <br><b>Item No.: 2009-145</b><br>Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white      | <br><b>Item No.: 248-502</b><br>Mini-WSB marking card; as card; MARKED; 1 ... 10 (10x); not stretchable; Horizontal marking; snap-on type; white | <br><b>Item No.: 248-503</b><br>Mini-WSB marking card; as card; MARKED; 11 ... 20 (10x); not stretchable; Horizontal marking; snap-on type; white    | <br><b>Item No.: 248-504</b><br>Mini-WSB marking card; as card; MARKED; 21 ... 30 (10x); not stretchable; Horizontal marking; snap-on type; white |
| <br><b>Item No.: 248-506</b><br>Mini-WSB marking card; as card; MARKED; 41 ... 50 (10x); not stretchable; Horizontal marking; snap-on type; white | <br><b>Item No.: 248-501</b><br>Mini-WSB marking card; as card; not stretchable; plain; snap-on type; white                                      | <br><b>Item No.: 793-5501</b><br>WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; white | <br><b>Item No.: 793-501</b><br>WMB marking card; as card; not stretchable; plain; snap-on type; white                                            |

1.1.4.2 Marking device

|                                                                                                                                  |
|----------------------------------------------------------------------------------------------------------------------------------|
| <br><b>Item No.: 210-110</b><br>Fiber-tip pen |
|----------------------------------------------------------------------------------------------------------------------------------|

## 1.1.5 Test and measurement

### 1.1.5.1 Testing accessories

**Item No.: 859-500**

WAGO Test pin; 1 mm Ø; 30 V AC / 60 V DC;  
CAT0; 1 A; 10 mm uninsulated; Test lead for  
soldering up to 0,5mm<sup>2</sup>

## 1.1.6 Tool

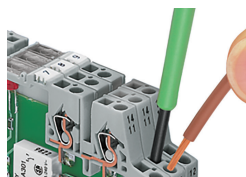
### 1.1.6.1 Operating tool

**Item No.: 210-720**

Operating tool; Blade: 3.5 x 0.5 mm; with a  
partially insulated shaft; multicoloured

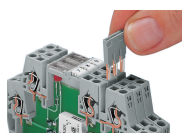
## Installation Notes

### Conductor termination



Conductor termination

### Commoning



Easy commoning using adjacent jumpers

### Marking



Marking via Mini-WSB Quick Marking System