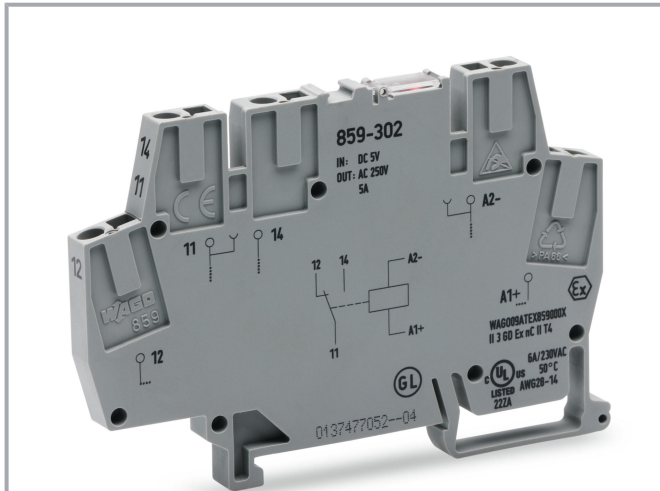


## Data sheet | Item number: 859-302

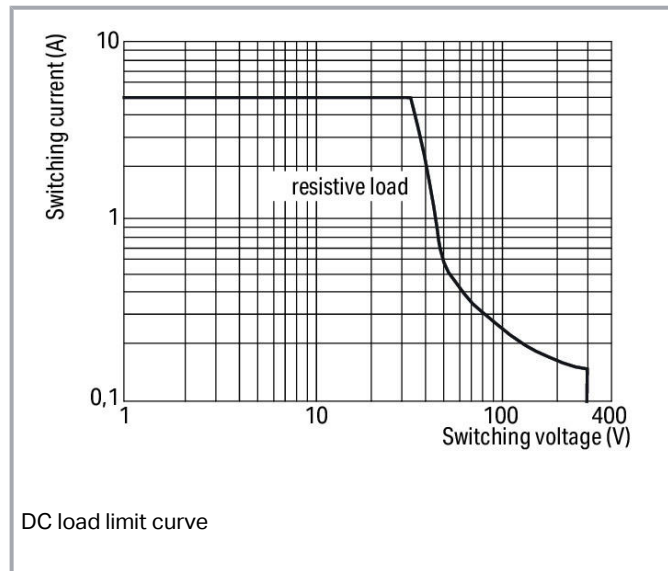
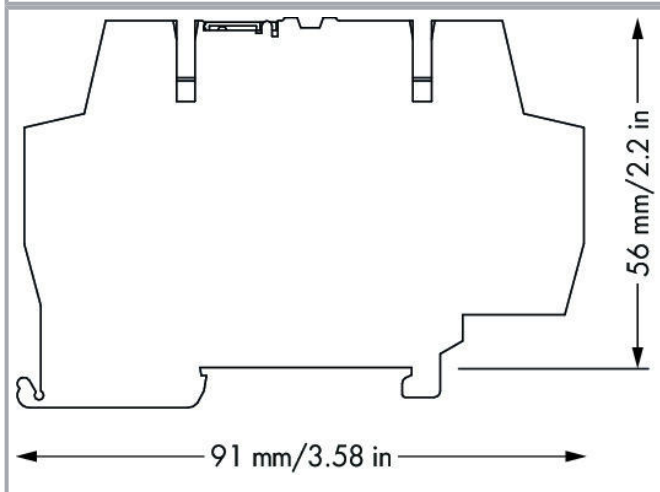
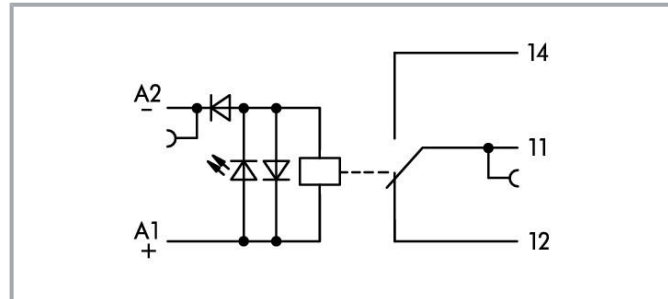
Relay module; Nominal input voltage: 5 VDC; 1 changeover contact; Red status indicator; Module width: 6 mm; 2,50 mm<sup>2</sup>; gray

[www.wago.com/859-302](http://www.wago.com/859-302)



Similar to picture

Color:



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

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## Data Notes

### Note

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

## Technical data

### Control circuit

|                                |               |
|--------------------------------|---------------|
| Nominal input voltage $U_N$    | DC 5 V        |
| Input voltage range            | -15 ... +20 % |
| Nominal input current at $U_N$ | 31 mA         |

### Load circuit

|                                              |                                             |
|----------------------------------------------|---------------------------------------------|
| Number of changeover/switchover contacts     | 1                                           |
| Contact material (relay)                     | AgSnO <sub>2</sub>                          |
| Limiting continuous current                  | 5 A                                         |
| Inrush current (resistive) (max.)            | (AC) 20 A / 0.02 s                          |
| Switching voltage (max.)                     | AC 250 V                                    |
| Switching power (resistive) (max.)           | AC 1250 VA; DC (see load limit curve)       |
| Recommended minimum load                     | 10 V / 10 mA; 24 V / 1 mA                   |
| Pull-in time (typ.)                          | 15 ms                                       |
| Drop-out time (typ.)                         | 25 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 |
|------------------|---------|

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



## Safety and protection

|                                                       |         |
|-------------------------------------------------------|---------|
| Rated voltage                                         | 250 V   |
| Rated surge voltage                                   | 4 kV    |
| Pollution degree                                      | 2       |
| Dielectric strength, control/load circuit (AC, 1 min) | 4 kVrms |
| Dielectric strength, open contact (AC, 1 min)         | 1 kVrms |

## 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 |
| Strip length            | 5 ... 6 mm / 0.2 ... 0.24 inch               |

## Physical data

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

## Mechanical data

|               |             |
|---------------|-------------|
| Mounting type | DIN-35 rail |
|---------------|-------------|

## Material data

|           |          |
|-----------|----------|
| Color     | gray     |
| Fire load | 0.313 MJ |
| Weight    | 22 g     |

## Environmental requirements

|                                                   |                                          |
|---------------------------------------------------|------------------------------------------|
| Surrounding air temperature (operation at $U_N$ ) | -40 ... 50 °C                            |
| Surrounding air temperature (storage)             | -40 ... 70 °C                            |
| Processing temperature                            | -25 ... +50 °C                           |
| Relative humidity                                 | 5 ... 95 % (no condensation permissible) |
| Operating altitude (max.)                         | 2000 m                                   |

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

## Standards and specifications

Standards/Specifications

EN 61010-2-201

EN 61810-1

EN 61373

GL

UL 508

## Commercial data

|                       |                           |
|-----------------------|---------------------------|
| Product Group         | 6 (Interface Electronics) |
| PU (SPU)              | 10 Stück                  |
| Packaging type        | box                       |
| Country of origin     | DE                        |
| GTIN                  | 4055143602587             |
| Customs tariff number | 85364900990               |

## Approvals / Certificates

### Ex-Approvals

| Logo                                                                                                      | Approval                  | Additional Approval Text | Certificate name |
|-----------------------------------------------------------------------------------------------------------|---------------------------|--------------------------|------------------|
| <br>Ex nA nC IIC T4 Gc | <b>CCCEX</b><br>CQST/CNEx | CNCA-C23-01              | 2021312304000982 |

### Ship Approvals

| Logo                                                                                | Approval                                                | Additional Approval Text | Certificate name      |
|-------------------------------------------------------------------------------------|---------------------------------------------------------|--------------------------|-----------------------|
|                                                                                     | <b>DNV GL</b><br>Det Norske Veritas, Germanischer Lloyd | -                        | TAA00001D1            |
|   | <b>NK</b><br>Nippon Kaiji Kyokai                        | -                        | TA17255M              |
|  | <b>PRS</b><br>Polski Rejestr Statków                    | -                        | TE/2186<br>/880590/18 |

### UL-Approvals

| Logo | Approval | Additional Approval Text | Certificate name |
|------|----------|--------------------------|------------------|
|------|----------|--------------------------|------------------|

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UL  
UL International Netherlands B.V. (ORDINARY  
LOCATIONS)

UL 508

E175199  
Sec.4

## Optional accessories

### Marking accessories

|                                                                                    |                                                                                                                                               |                                                                                |
|------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|
| Marking device                                                                     |                                                                                                                                               |                                                                                |
|     | <b>Item no.: 210-110</b><br>Fiber-tip pen                                                                                                     | <a href="http://www.wago.com/210-110">www.wago.com/210-110</a>                 |
| Marker                                                                             |                                                                                                                                               |                                                                                |
|    | <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      | <a href="http://www.wago.com/2009-145">www.wago.com/2009-145</a>               |
|    | <b>Item no.: 248-501</b><br>Mini-WSB marking card; as card; not stretchable; plain; snap-on type; white                                       | <a href="http://www.wago.com/248-501">www.wago.com/248-501</a>                 |
|    | <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 | <a href="http://www.wago.com/248-504">www.wago.com/248-504</a>                 |
|  | <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 | <a href="http://www.wago.com/248-503">www.wago.com/248-503</a>                 |
|  | <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 | <a href="http://www.wago.com/248-506">www.wago.com/248-506</a>                 |
|  | <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  | <a href="http://www.wago.com/248-502">www.wago.com/248-502</a>                 |
| Jumpers                                                                            |                                                                                                                                               |                                                                                |
| Jumper                                                                             |                                                                                                                                               |                                                                                |
|   | <b>Item no.: 859-408</b><br>Jumper; for jumper slot; 8-way; insulated; light gray                                                             | <a href="http://www.wago.com/859-408">www.wago.com/859-408</a>                 |
|  | <b>Item no.: 859-404/000-005</b><br>Jumper; for jumper slot; 4-way; insulated; red                                                            | <a href="http://www.wago.com/859-404/000-005">www.wago.com/859-404/000-005</a> |
|  | <b>Item no.: 859-404/000-006</b><br>Jumper; for jumper slot; 4-way; insulated; blue                                                           | <a href="http://www.wago.com/859-404/000-006">www.wago.com/859-404/000-006</a> |

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**Item no.: 859-405/000-005**

Jumper; for jumper slot; 5-way; insulated; red

[www.wago.com/859-405/000-005](http://www.wago.com/859-405/000-005)



**Item no.: 859-405/000-029**

Jumper; for jumper slot; 5-way; insulated; yellow

[www.wago.com/859-405/000-029](http://www.wago.com/859-405/000-029)



**Item no.: 859-405**

Jumper; for jumper slot; 5-way; insulated; light gray

[www.wago.com/859-405](http://www.wago.com/859-405)



**Item no.: 859-404/000-029**

Jumper; for jumper slot; 4-way; insulated; yellow

[www.wago.com/859-404/000-029](http://www.wago.com/859-404/000-029)



**Item no.: 859-406**

Jumper; for jumper slot; 6-way; insulated; light gray

[www.wago.com/859-406](http://www.wago.com/859-406)



**Item no.: 859-405/000-006**

Jumper; for jumper slot; 5-way; insulated; blue

[www.wago.com/859-405/000-006](http://www.wago.com/859-405/000-006)



**Item no.: 859-406/000-005**

Jumper; for jumper slot; 6-way; insulated; red

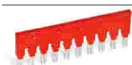
[www.wago.com/859-406/000-005](http://www.wago.com/859-406/000-005)



**Item no.: 859-409/000-029**

Jumper; for jumper slot; 9-way; insulated; yellow

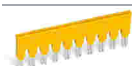
[www.wago.com/859-409/000-029](http://www.wago.com/859-409/000-029)



**Item no.: 859-410/000-005**

Jumper; for jumper slot; 10-way; insulated; red

[www.wago.com/859-410/000-005](http://www.wago.com/859-410/000-005)



**Item no.: 859-410/000-029**

Jumper; for jumper slot; 10-way; insulated; yellow

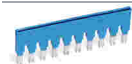
[www.wago.com/859-410/000-029](http://www.wago.com/859-410/000-029)



**Item no.: 859-410**

Jumper; for jumper slot; 10-way; insulated; light gray

[www.wago.com/859-410](http://www.wago.com/859-410)



**Item no.: 859-410/000-006**

Jumper; for jumper slot; 10-way; insulated; blue

[www.wago.com/859-410/000-006](http://www.wago.com/859-410/000-006)



**Item no.: 859-403/000-005**

Jumper; for jumper slot; 3-way; insulated; red

[www.wago.com/859-403/000-005](http://www.wago.com/859-403/000-005)



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|                                                                                    |                                                                                       |                                                                                |
|------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|
|                                                                                    | <b>Item no.: 859-402/000-029</b><br>Jumper; for jumper slot; 2-way; insulated; yellow | <a href="http://www.wago.com/859-402/000-029">www.wago.com/859-402/000-029</a> |
|    | <b>Item no.: 859-403/000-029</b><br>Jumper; for jumper slot; 3-way; insulated; yellow | <a href="http://www.wago.com/859-403/000-029">www.wago.com/859-403/000-029</a> |
|    | <b>Item no.: 859-403/000-006</b><br>Jumper; for jumper slot; 3-way; insulated; blue   | <a href="http://www.wago.com/859-403/000-006">www.wago.com/859-403/000-006</a> |
|    | <b>Item no.: 859-408/000-005</b><br>Jumper; for jumper slot; 8-way; insulated; red    | <a href="http://www.wago.com/859-408/000-005">www.wago.com/859-408/000-005</a> |
|    | <b>Item no.: 859-408/000-029</b><br>Jumper; for jumper slot; 8-way; insulated; yellow | <a href="http://www.wago.com/859-408/000-029">www.wago.com/859-408/000-029</a> |
|    | <b>Item no.: 859-409</b><br>Jumper; for jumper slot; 9-way; insulated; light gray     | <a href="http://www.wago.com/859-409">www.wago.com/859-409</a>                 |
|    | <b>Item no.: 859-408/000-006</b><br>Jumper; for jumper slot; 8-way; insulated; blue   | <a href="http://www.wago.com/859-408/000-006">www.wago.com/859-408/000-006</a> |
|  | <b>Item no.: 859-403</b><br>Jumper; for jumper slot; 3-way; insulated; light gray     | <a href="http://www.wago.com/859-403">www.wago.com/859-403</a>                 |
|  | <b>Item no.: 859-409/000-005</b><br>Jumper; for jumper slot; 9-way; insulated; red    | <a href="http://www.wago.com/859-409/000-005">www.wago.com/859-409/000-005</a> |
|  | <b>Item no.: 859-404</b><br>Jumper; for jumper slot; 4-way; insulated; light gray     | <a href="http://www.wago.com/859-404">www.wago.com/859-404</a>                 |
|  | <b>Item no.: 859-409/000-006</b><br>Jumper; for jumper slot; 9-way; insulated; blue   | <a href="http://www.wago.com/859-409/000-006">www.wago.com/859-409/000-006</a> |
|  | <b>Item no.: 859-402/000-006</b><br>Jumper; for jumper slot; 2-way; insulated; blue   | <a href="http://www.wago.com/859-402/000-006">www.wago.com/859-402/000-006</a> |
|  | <b>Item no.: 859-402</b><br>Jumper; for jumper slot; 2-way; insulated; light gray     | <a href="http://www.wago.com/859-402">www.wago.com/859-402</a>                 |
|  | <b>Item no.: 859-402/000-005</b><br>Jumper; for jumper slot; 2-way; insulated; red    | <a href="http://www.wago.com/859-402/000-005">www.wago.com/859-402/000-005</a> |

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

**Item no.: 859-406/000-006**

Jumper; for jumper slot; 6-way; insulated; blue

[www.wago.com/859-406/000-006](http://www.wago.com/859-406/000-006)**Item no.: 859-406/000-029**

Jumper; for jumper slot; 6-way; insulated; signal yellow

[www.wago.com/859-406/000-029](http://www.wago.com/859-406/000-029)**Item no.: 859-407/000-006**

Jumper; for jumper slot; 7-way; insulated; blue

[www.wago.com/859-407/000-006](http://www.wago.com/859-407/000-006)**Item no.: 859-407/000-005**

Jumper; for jumper slot; 7-way; insulated; red

[www.wago.com/859-407/000-005](http://www.wago.com/859-407/000-005)**Item no.: 859-407/000-029**

Jumper; for jumper slot; 7-way; insulated; yellow

[www.wago.com/859-407/000-029](http://www.wago.com/859-407/000-029)**Item no.: 859-407**

Jumper; for jumper slot; 7-way; insulated; light gray

[www.wago.com/859-407](http://www.wago.com/859-407)**Tool**

## Operating tool

**Item no.: 210-720**

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

[www.wago.com/210-720](http://www.wago.com/210-720)**Ferrule**

## Ferrule

**Item no.: 216-223**Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; insulated; electro-tin plated; red[www.wago.com/216-223](http://www.wago.com/216-223)**Item no.: 216-222**Ferrule; Sleeve for 0.75 mm<sup>2</sup> / 18 AWG; insulated; electro-tin plated; gray[www.wago.com/216-222](http://www.wago.com/216-222)**Item no.: 216-221**Ferrule; Sleeve for 0.5 mm<sup>2</sup> / 20 AWG; insulated; electro-tin plated; white[www.wago.com/216-221](http://www.wago.com/216-221)**Item no.: 216-224**Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; insulated; electro-tin plated; black[www.wago.com/216-224](http://www.wago.com/216-224)**Item no.: 216-321**Ferrule; Sleeve for 0.25 mm<sup>2</sup> / AWG 24; insulated; electro-tin plated; yellow[www.wago.com/216-321](http://www.wago.com/216-321)**Item no.: 216-322**Ferrule; Sleeve for 0.34 mm<sup>2</sup> / 22 AWG; insulated; electro-tin plated; green[www.wago.com/216-322](http://www.wago.com/216-322)**Testing and measuring**

## Testing accessories

**Item no.: 859-500**

Test pin; 1 mm Ø; with solder connection for test wire

[www.wago.com/859-500](http://www.wago.com/859-500)

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

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**End plate**

End plate



Item no.: 859-525

End and intermediate plate; 1 mm thick; gray

[www.wago.com/859-525](http://www.wago.com/859-525)**Downloads****Documentation****Bid Text**

|             |              |        |          |
|-------------|--------------|--------|----------|
| 859-302     | 2019. 2. 19. | xml    | Download |
| X81 - Datei |              | 4.6 kB |          |

|              |              |         |          |
|--------------|--------------|---------|----------|
| 859-302      | 2019. 2. 20. | docx    | Download |
| docx - Datei |              | 17.1 kB |          |

**Instruction Leaflet**

|                                    |              |        |          |
|------------------------------------|--------------|--------|----------|
| Relay modules, Optocoupler modules | V 1.2.0      | pdf    | Download |
|                                    | 2019. 8. 30. | 2.2 MB |          |

**Additional Information**

|                                                          |         |          |          |
|----------------------------------------------------------|---------|----------|----------|
| Disposal; Electrical and electronic equipment, Packaging | V 1.0.0 | pdf      | Download |
|                                                          |         | 265.8 kB |          |

**CAD/CAE-Data****CAE data**

|                           |     |          |
|---------------------------|-----|----------|
| EPLAN Data Portal 859-302 | URL | Download |
|---------------------------|-----|----------|

|                        |     |          |
|------------------------|-----|----------|
| WSCAD Universe 859-302 | URL | Download |
|------------------------|-----|----------|

|                      |     |          |
|----------------------|-----|----------|
| ZUKEN Portal 859-302 | URL | Download |
|----------------------|-----|----------|

**CAD data**

|                      |     |          |
|----------------------|-----|----------|
| 2D/3D Models 859-302 | URL | Download |
|----------------------|-----|----------|

**Environmental Product Compliance****Compliance Search**

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

Environmental Product Compliance 859-302

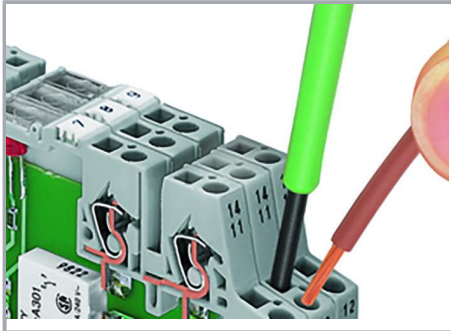
[URL](#)

[Download](#)

Relay module; Nominal input voltage: 5 VDC; 1 changeover contact; Red status indicator; Module width: 6 mm; 2,50 mm<sup>2</sup>; gray

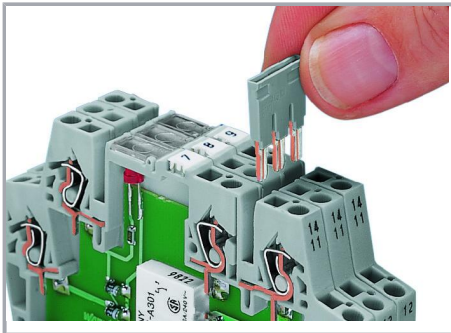
## Installation Notes

### Conductor termination



### Conductor termination

### Commoning



### Easy commoning using adjacent jumpers

### Marking

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

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Marking via Mini-WSB Quick Marking System

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