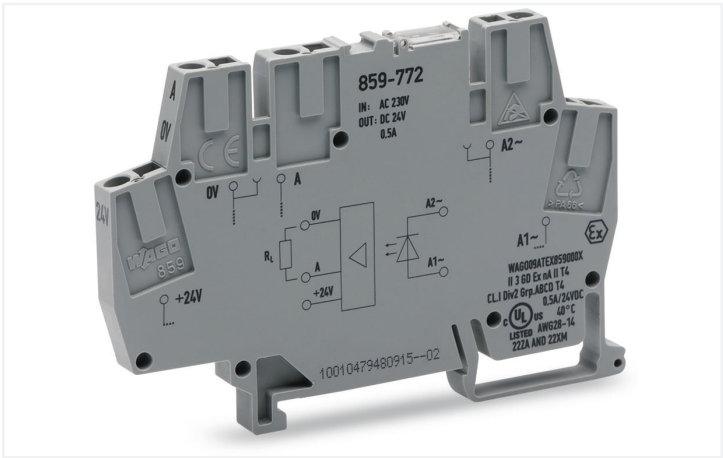


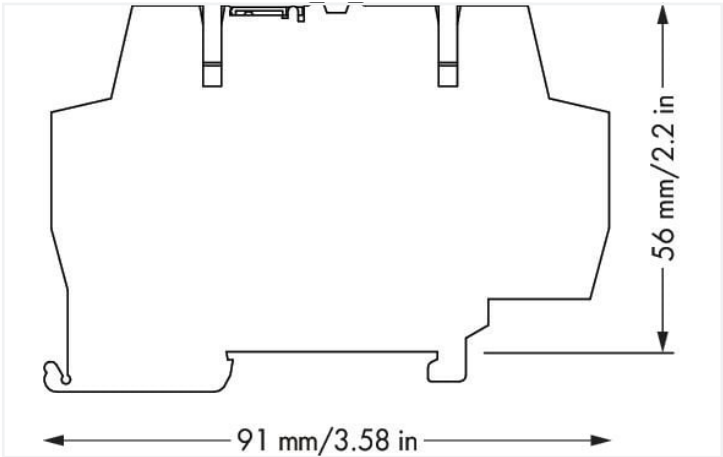
Data Sheet | Item Number: 859-772

Optocoupler module; Nominal input voltage: 230 VAC; Output voltage range: 20 ... 30 VDC; Limiting continuous current: 0.5 A; 3-wire connection/high-side switching; Red status indicator; Module width: 6 mm; gray

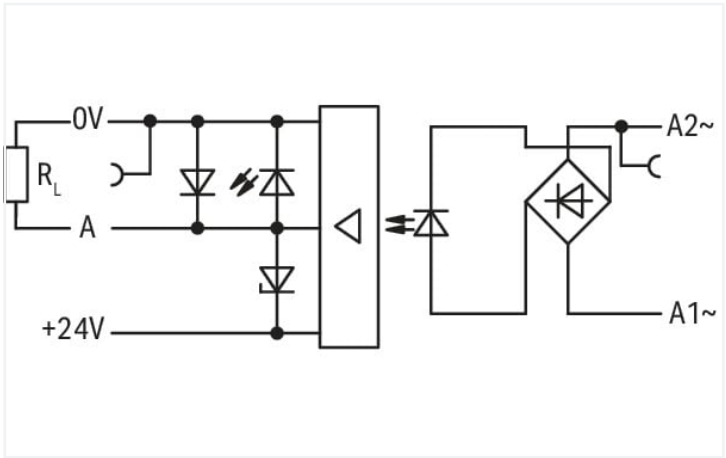
<https://www.wago.com/859-772>



Color: ■ gray



Dimensions in mm



| Notes |                                                                                                                                                          |
|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Note  | Optocouplers and solid state relays are designed for use in signal processing networks, which are not supplied by the low-voltage power supply networks. |

| Technical data                   |                  |                                                   |                                          |
|----------------------------------|------------------|---------------------------------------------------|------------------------------------------|
| Control circuit                  |                  | Load circuit                                      |                                          |
| Nominal input voltage $U_N$      | AC 230 V         | Circuit type                                      | 3-wire connection<br>High-side switching |
| Input voltage range (low level)  | AC 0 ... 90 V    | Limiting continuous current                       | 0.5 A                                    |
| Input voltage range (high level) | AC 175 ... 270 V | Nominal output voltage                            | DC 24 V                                  |
| Nominal input current at $U_N$   | 1 mA             | Output voltage range                              | DC 20 ... 30 V                           |
|                                  |                  | Voltage drop                                      | $\leq 1.2$ VDC                           |
|                                  |                  | Leakage current at rated voltage                  | $\leq 10 \mu A$                          |
|                                  |                  | Output closed-circuit current (without load) max. | 12 mA                                    |
|                                  |                  | Turn-on time                                      | $\leq 30$ ms                             |
|                                  |                  | Turn-off time                                     | $\leq 30$ ms                             |

### Signaling

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

### Safety and protection

|                                                             |                                                          |
|-------------------------------------------------------------|----------------------------------------------------------|
| Rated voltage                                               | 300 V                                                    |
| Type of circuits                                            | Mains circuits                                           |
| Overvoltage category                                        | II                                                       |
| Pollution degree                                            | 2                                                        |
| Dielectric strength (control/load circuit) (AC, 1 min)      | 3 kVrms                                                  |
| Insulation type (control/load circuit)                      | Reinforced insulation (safe isolation)                   |
| Insulation type (between adjacent devices of the same type) | Reinforced insulation (safe isolation)                   |
| Insulation type (to adjacent devices of different types)    | Basic insulation                                         |
| 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

|           |          |
|-----------|----------|
| Color     | gray     |
| Fire load | 0.338 MJ |
| Weight    | 20.4 g   |

### Environmental requirements

|                                                       |                                          |
|-------------------------------------------------------|------------------------------------------|
| Ambient temperature (operation at U <sub>N</sub> )    | -25 ... +55 °C                           |
| Ambient temperature UL (operation at U <sub>N</sub> ) | -25 ... +40 °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 61000-6-2<br>EN 61000-6-3<br>EN 61373<br>UL 508 |
|--------------------------|----------------------------------------------------------------------|

Commercial data

|                       |                          |
|-----------------------|--------------------------|
| Product Group         | 6 (INTERFACE ELECTRONIC) |
| eCl@ss 10.0           | 27-26-15-03              |
| eCl@ss 9.0            | 27-26-15-03              |
| ETIM 8.0              | EC001504                 |
| ETIM 7.0              | EC001504                 |
| PU (SPU)              | 1 pcs                    |
| Packaging type        | Box                      |
| Country of origin     | DE                       |
| GTIN                  | 4055144130225            |
| Customs tariff number | 85365005000              |

Environmental Product Compliance

|                                           |                                                                                               |
|-------------------------------------------|-----------------------------------------------------------------------------------------------|
| CAS-No.                                   | 1303-86-2<br>1317-36-8<br>7439-92-1<br>79-94-7                                                |
| REACH Candidate List Substance            | 2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol<br>Diboron trioxide<br>Lead<br>Lead monoxide |
| RoHS Compliance Status                    | Compliant,With Exemption                                                                      |
| RoHS Exemption                            | 7(a)<br>7(c)-I                                                                                |
| SCIP notification number (Austria)        | 7b7a0727-9ea7-4d73-bb6c-9ebcf112cf1e                                                          |
| SCIP notification number (Belgium)        | 30368bae-c60d-495e-8a38-b2dba867a2a9                                                          |
| SCIP notification number (Bulgaria)       | 9e510fa9-994e-4d30-8c64-41e168fc56df                                                          |
| SCIP notification number (Czech Republic) | f0459634-ef2c-496c-b525-7fcd01b3f5e8                                                          |
| SCIP notification number (Denmark)        | 81836dd0-3719-4065-8ed4-1b597e7198fb                                                          |
| SCIP notification number (Finland)        | 55c92654-b2a0-4174-86b1-b4b9962bf57f                                                          |
| SCIP notification number (France)         | 3115ce03-7a1e-4b16-ba43-e44e0271f6ea                                                          |
| SCIP notification number (Germany)        | fc45cbf7-4f81-46f1-9fd5-c05e1c2e7dac                                                          |
| SCIP notification number (Hungary)        | 83be52ec-7c2c-42db-9e49-d21d292ace72                                                          |
| SCIP notification number (Italy)          | ee6539e6-8425-4697-a652-0cece00eed03                                                          |
| SCIP notification number (Netherlands)    | 89f8de47-ce49-4608-9764-7b7036154955                                                          |
| SCIP notification number (Poland)         | 5f490b96-2513-435a-8d9e-f06517e9f229                                                          |
| SCIP notification number (Romania)        | e52d0375-0ff2-469b-88cd-8d0527781e56                                                          |
| SCIP notification number (Sweden)         | 4a224bbd-7ec5-40a8-afde-3cd169ef9249                                                          |



Approvals / Certificates

General approvals

EAC

UL

| Approval                                                          | Standard       | Certificate Name                |
|-------------------------------------------------------------------|----------------|---------------------------------|
| EAC<br>Brjansker Zertifizierungs-<br>stelle                       | TP TC 004/2011 | EAC RU C-DE.AM02.<br>B.00122/19 |
| UL<br>Underwriters Laboratories<br>Inc. (ORDINARY LOCATI-<br>ONS) | UL 508         | E175199 Sec.4                   |

Approvals for hazardous areas

UL

| Approval                                                           | Standard          | Certificate Name |
|--------------------------------------------------------------------|-------------------|------------------|
| UL<br>Underwriters Laboratories<br>Inc. (HAZARDOUS LOCA-<br>TIONS) | ANSI/ISA 12.12.01 | E198726          |

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product  
Compliance 859-772

↓

Documentation

Bid Text

|         |            |                  |   |
|---------|------------|------------------|---|
| 859-772 | 19.02.2019 | xml<br>3.91 KB   | ↓ |
| 859-772 | 20.02.2019 | docx<br>15.43 KB | ↓ |

Instruction Leaflet

|                                         |                       |                   |   |
|-----------------------------------------|-----------------------|-------------------|---|
| Relay modules, Opto-<br>coupler modules | V 2.0.0<br>19.01.2022 | pdf<br>2066.27 KB | ↓ |
|-----------------------------------------|-----------------------|-------------------|---|

CAD/CAE-Data

CAD data

2D/3D Models 859-772

↓

CAE data

EPLAN Data Portal  
859-772

↓

WSCAD Universe  
859-772

↓

ZUKEN Portal 859-772

↓

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Version 13.11.2023

Continued on next page



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



[Item No.: 859-403/000-006](#)  
Jumper; for jumper slot; 3-way; insulated; blue



[Item No.: 859-403](#)  
Jumper; for jumper slot; 3-way; insulated; light gray



[Item No.: 859-403/000-005](#)  
Jumper; for jumper slot; 3-way; insulated; red



[Item No.: 859-403/000-029](#)  
Jumper; for jumper slot; 3-way; insulated; yellow



[Item No.: 859-404/000-006](#)  
Jumper; for jumper slot; 4-way; insulated; blue



[Item No.: 859-404](#)  
Jumper; for jumper slot; 4-way; insulated; light gray



[Item No.: 859-404/000-005](#)  
Jumper; for jumper slot; 4-way; insulated; red



[Item No.: 859-404/000-029](#)  
Jumper; for jumper slot; 4-way; insulated; yellow



1.1.3.1 Jumper



**Item No.: 859-405/000-006**  
Jumper; for jumper slot; 5-way; insulated; blue



**Item No.: 859-405**  
Jumper; for jumper slot; 5-way; insulated; light gray



**Item No.: 859-405/000-005**  
Jumper; for jumper slot; 5-way; insulated; red



**Item No.: 859-405/000-029**  
Jumper; for jumper slot; 5-way; insulated; yellow



**Item No.: 859-406/000-006**  
Jumper; for jumper slot; 6-way; insulated; blue



**Item No.: 859-406**  
Jumper; for jumper slot; 6-way; insulated; light gray



**Item No.: 859-406/000-005**  
Jumper; for jumper slot; 6-way; insulated; red



**Item No.: 859-406/000-029**  
Jumper; for jumper slot; 6-way; insulated; signal yellow



**Item No.: 859-407/000-006**  
Jumper; for jumper slot; 7-way; insulated; blue



**Item No.: 859-407**  
Jumper; for jumper slot; 7-way; insulated; light gray



**Item No.: 859-407/000-005**  
Jumper; for jumper slot; 7-way; insulated; red



**Item No.: 859-407/000-029**  
Jumper; for jumper slot; 7-way; insulated; yellow



**Item No.: 859-408/000-006**  
Jumper; for jumper slot; 8-way; insulated; blue



**Item No.: 859-408**  
Jumper; for jumper slot; 8-way; insulated; light gray



**Item No.: 859-408/000-005**  
Jumper; for jumper slot; 8-way; insulated; red



**Item No.: 859-408/000-029**  
Jumper; for jumper slot; 8-way; insulated; yellow



**Item No.: 859-409/000-006**  
Jumper; for jumper slot; 9-way; insulated; blue



**Item No.: 859-409**  
Jumper; for jumper slot; 9-way; insulated; light gray



**Item No.: 859-409/000-005**  
Jumper; for jumper slot; 9-way; insulated; red



**Item No.: 859-409/000-029**  
Jumper; for jumper slot; 9-way; insulated; yellow

1.1.4 Marking

1.1.4.1 Marker



**Item No.: 2009-145**  
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white



**Item No.: 248-502**  
Mini-WSB marking card; as card; MARKED; 1 ... 10 (10x); not stretchable; Horizontal marking; snap-on type; white



**Item No.: 248-503**  
Mini-WSB marking card; as card; MARKED; 11 ... 20 (10x); not stretchable; Horizontal marking; snap-on type; white



**Item No.: 248-504**  
Mini-WSB marking card; as card; MARKED; 21 ... 30 (10x); not stretchable; Horizontal marking; snap-on type; white



**Item No.: 248-506**  
Mini-WSB marking card; as card; MARKED; 41 ... 50 (10x); not stretchable; Horizontal marking; snap-on type; white



**Item No.: 248-501**  
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; white

1.1.4.2 Marking device



**Item No.: 210-110**  
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 0,5mm²

## 1.1.6 Tool

### 1.1.6.1 Operating tool

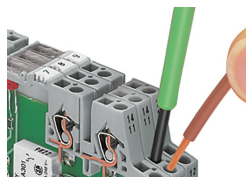


**Item No.: 210-720**

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

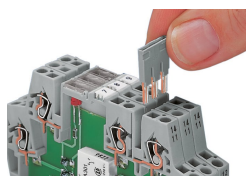
## Installation Notes

### Conductor termination



Conductor termination

### Commoning



Easy commoning using adjacent jumpers

### Marking



Marking via Mini-WSB Quick Marking System