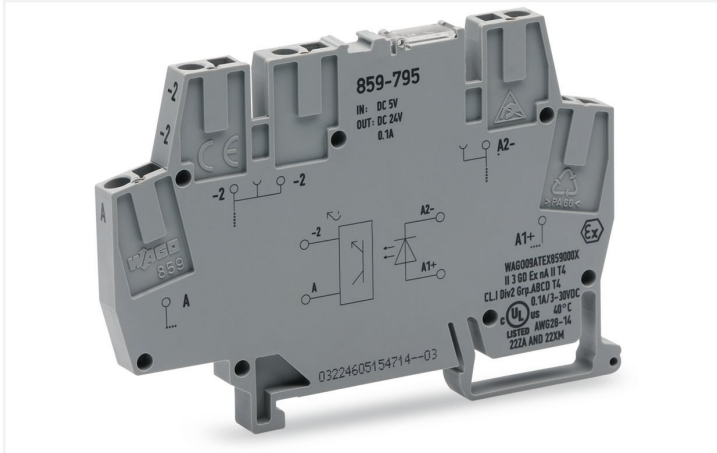


## Data Sheet | Item Number: 859-795

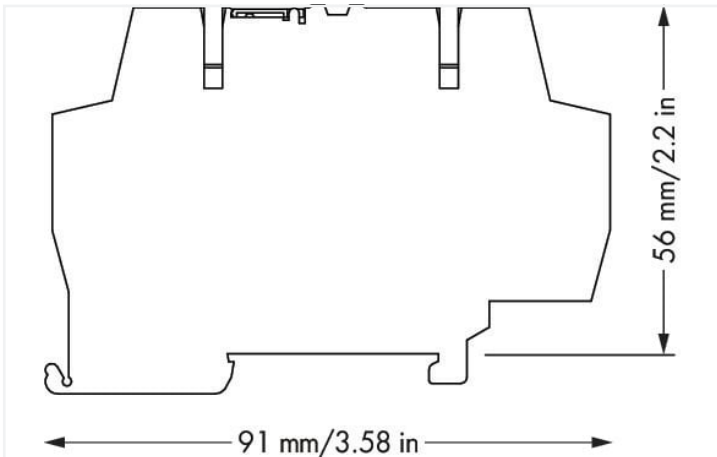
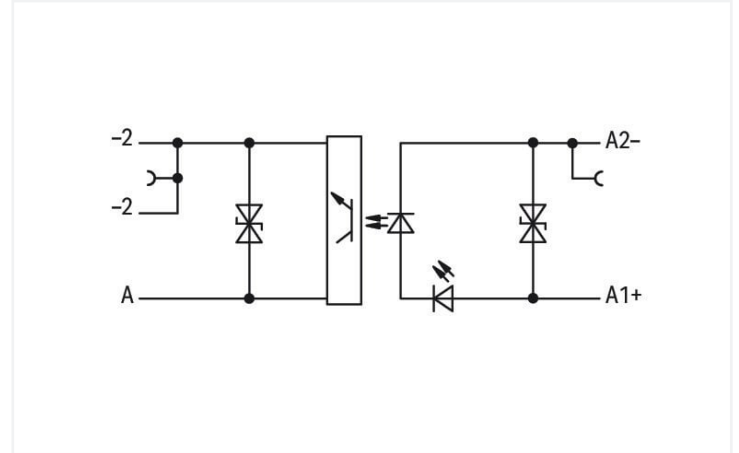
Optocoupler module; Nominal input voltage: 5 VDC; Output voltage range: 3 ... 30 VDC; Limiting continuous current: 0.1 A; 2-wire connection; Railway; Frequency: 10 kHz; Module width: 6 mm; gray



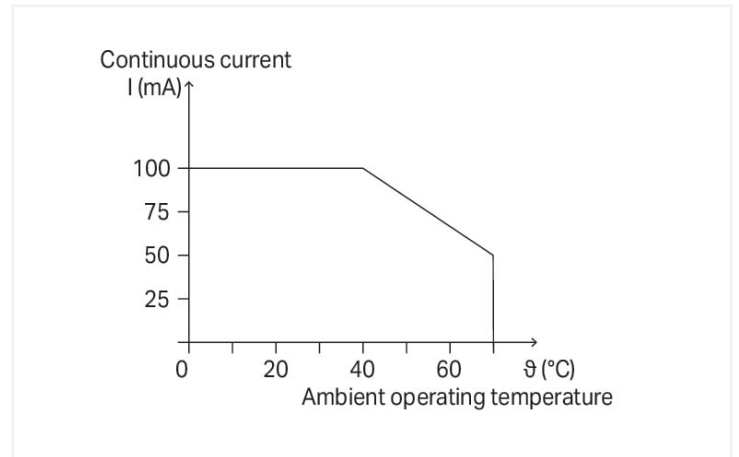
<https://www.wago.com/859-795>



Color: ■ gray



Dimensions in mm



Current-carrying capacity curve

### 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

|                                  |                 |
|----------------------------------|-----------------|
| Nominal input voltage $U_N$      | DC 5 V          |
| Input voltage range (low level)  | DC 0 ... 0.8 V  |
| Input voltage range (high level) | DC 2 ... 6.25 V |
| Nominal input current at $U_N$   | 17 mA           |

#### Load circuit

|                                  |                   |
|----------------------------------|-------------------|
| Circuit type                     | 2-wire connection |
| Limiting continuous current      | 0.1 A             |
| Nominal output voltage           | DC 24 V           |
| Output voltage range             | DC 3 ... 30 V     |
| Voltage drop                     | $\leq 1$ VDC      |
| Leakage current at rated voltage | $\leq 25$ $\mu$ A |
| Turn-on time                     | $\leq 10$ $\mu$ s |
| Turn-off time                    | $\leq 50$ $\mu$ s |
| Switching frequency              | $\leq 10$ kHz     |

### Signaling

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

### Safety and protection

|   |  |
|---|--|
| Rated voltage   | 300 V  |
| Overvoltage category  | II   |
| Pollution degree  | 2  |
| Dielectric strength (control/load circuit) (AC, 1 min)      | 2.5 kVrms  |
| Insulation type (control/load circuit)                      | Basic insulation   |
| 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    | 18.1 g   |

### Environmental requirements

|  |  |
|--|--|
| Ambient temperature (operation at U <sub>N</sub> ) | -40 ... +70 °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 61000-6-3<br>EN 61000-6-4<br>EN 50121-3-2<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)              | 10 pcs                   |
| Packaging type        | Box                      |
| Country of origin     | DE                       |
| GTIN                  | 4055143606462            |
| Customs tariff number | 85365005000              |

## 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,With Exemption                                 |
| RoHS Exemption                            | 7(a)<br>7(c)-I   |
| SCIP notification number (Austria)        | 904d968e-97bd-40c6-9217-6816dc0a06fc                     |
| SCIP notification number (Belgium)        | f224f726-d3de-43d1-8751-0262fe1f1da8                     |
| SCIP notification number (Bulgaria)       | 245eebd3-2d2c-44b9-8497-b649c2f257b0                     |
| SCIP notification number (Czech Republic) | 7229742d-30af-45f8-8ff2-81e36f7ef016                     |
| SCIP notification number (Denmark)        | 1e849c3d-9e3a-4aa8-98de-86a109fef4c9                     |
| SCIP notification number (Finland)        | c39a539e-762b-4582-b6df-daa32cc18d6e                     |
| SCIP notification number (France)         | 9a650c43-036a-48f1-92a9-80a3b36459c2                     |
| SCIP notification number (Germany)        | b4d46a2a-331b-46fb-aa14-4846babf272b                     |
| SCIP notification number (Hungary)        | 5427c49a-d945-4040-8246-379666f8d6fa                     |
| SCIP notification number (Italy)          | ac868591-758e-4caf-b717-d329a5537e42                     |
| SCIP notification number (Netherlands)    | 6c0d1e19-a6b9-4c72-9b57-b9b13dc72966                     |
| SCIP notification number (Poland)         | 5a2fc672-97ab-4edb-ae1f-896a18aae16a                     |
| SCIP notification number (Romania)        | 322ef2c9-0eea-4142-8157-274cb493ed95                     |
| SCIP notification number (Sweden)         | 8988cf29-708d-4e6e-ba22-c0d21927bc4c                     |

## Approvals / Certificates

### General approvals



| Approval  | Standard       | Certificate Name                            |
|---|----------------|---|
| EAC<br>Brjansker Zertifizierungs-<br>stelle                       | TP TC 020/2011 | EAC_Certificate_RU_C-<br>DE.AM02.B.00115_19 |
| UL<br>Underwriters Laboratories<br>Inc. (ORDINARY LOCATI-<br>ONS) | UL 508         | E175199 Sec.4                               |

### Declarations of conformity and manufacturer's declarations

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

Approvals for hazardous areas



| Approval   | Standard          | Certificate Name                   |
|--|-------------------|------------------------------------|
| CCC<br>CNEX  | CNCA-C23-01       | 2021312304000982 (Ex ec IIC T4 Gc) |
| UKEx<br>WAGO GmbH & Co. KG                                 | EN 60079-0        | WAGO22UKEX007X_ec                  |
| UL<br>Underwriters Laboratories Inc. (HAZARDOUS LOCATIONS) | ANSI/ISA 12.12.01 | E198726                            |

Downloads

Environmental Product Compliance

| Compliance Search                        |
|--|
| Environmental Product Compliance 859-795 |

Documentation

| Bid Text |            |                  |  |
|----------|------------|------------------|--|
| 859-795  | 19.02.2019 | xml<br>3.86 KB   |  |
| 859-795  | 20.02.2019 | docx<br>15.41 KB |  |

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

CAD/CAE-Data

| CAD data             |
|----------------------|
| 2D/3D Models 859-795 |

| CAE data                  |
|---------------------------|
| EPLAN Data Portal 859-795 |
| WSCAD Universe 859-795    |
| ZUKEN Portal 859-795      |

## 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 mm<sup>2</sup> / AWG 24; insulated; electro-tin plated; yellow



**Item No.: 216-322**  
Ferrule; Sleeve for 0.34 mm<sup>2</sup> / 22 AWG; insulated; electro-tin plated; light turquoise



**Item No.: 216-221**  
Ferrule; Sleeve for 0.5 mm<sup>2</sup> / 20 AWG; insulated; electro-tin plated; white



**Item No.: 216-222**  
Ferrule; Sleeve for 0.75 mm<sup>2</sup> / 18 AWG; insulated; electro-tin plated; gray



**Item No.: 216-223**  
Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; insulated; electro-tin plated; red



**Item No.: 216-224**  
Ferrule; Sleeve for 1.5 mm<sup>2</sup> / 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 0,5mm<sup>2</sup>

## 1.1.6 Tool

### 1.1.6.1 Operating tool

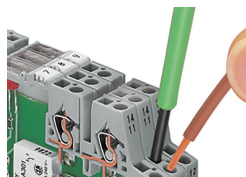


**Item No.: 210-720**

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

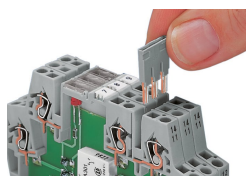
## Installation Notes

### Conductor termination



Conductor termination

### Commoning



Easy commoning using adjacent jumpers

### Marking



Marking via Mini-WSB Quick Marking System