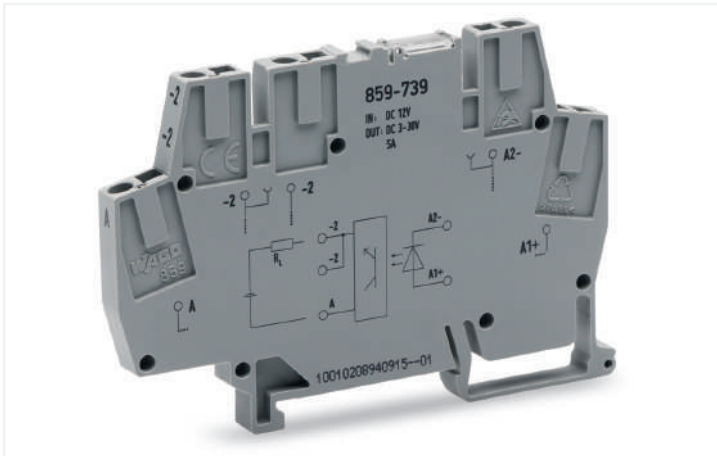


## Data Sheet | Item Number: 859-739

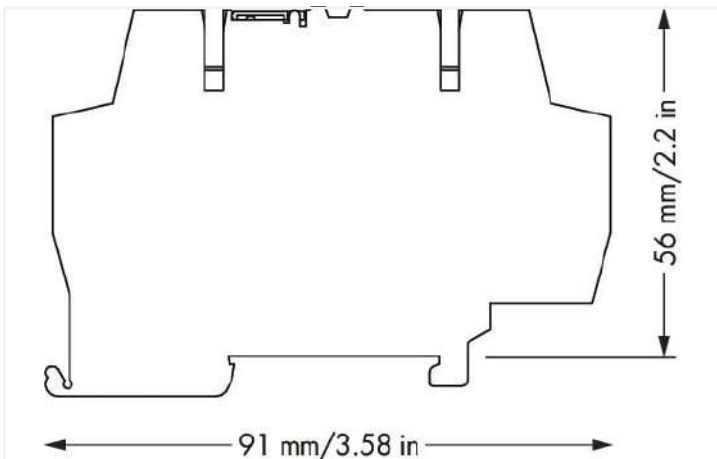
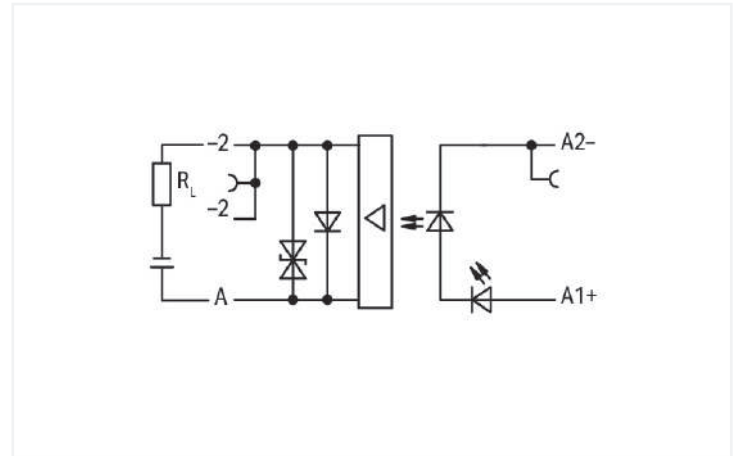
Optocoupler module; Nominal input voltage: 12 VDC; Output voltage range: 3 ... 30 VDC; Limiting continuous current: 5 A; 2-wire connection; Red status indicator; Module width: 6 mm; gray



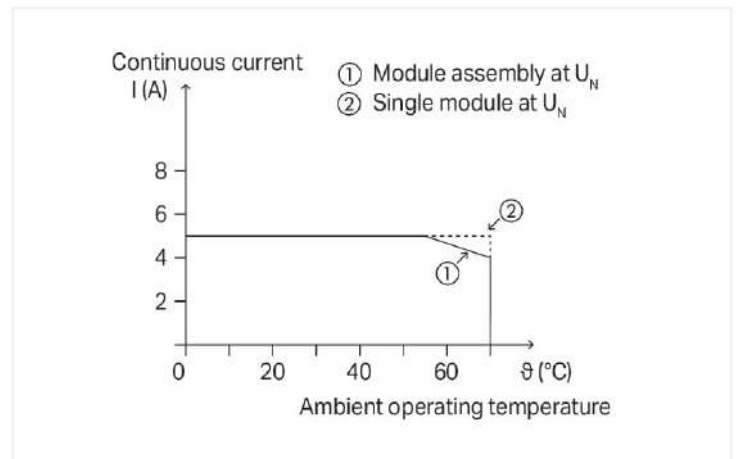
<https://www.wago.com/859-739>



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 12 V
Input voltage range (low level)	DC 0 ... 5 V
Input voltage range (high level)	DC 9.6 ... 14.4 V
Nominal input current at $U_N$	4 mA

#### Load circuit

Circuit type	2-wire connection
Limiting continuous current	5 A
Peak output current	25 A
Nominal output voltage	DC 24 V
Output voltage range	DC 3 ... 30 V
Voltage drop	$\leq 0.2$ VDC
Turn-on time	$\leq 200$ $\mu$ s
Turn-off time	$\leq 450$ $\mu$ s
Switching frequency	$\leq 100$ Hz

### Signaling

Status indicator	Red LED
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### 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	19.1 g

### Environmental requirements

Ambient temperature (operation at U <sub>N</sub> )	-25 ... +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 EN 61000-6-2 EN 61000-6-3 EN 61373
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## 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	4055143605397
Customs tariff number	85365005000

## Environmental Product Compliance

CAS-No.	7439-92-1 79-94-7
REACH Candidate List Substance	2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol Lead
RoHS Compliance Status	Compliant,With Exemption
RoHS Exemption	7(a) 7(c)-I 7(c)-II
SCIP notification number (Austria)	39f3c423-b615-4841-aff8-23d7c9121c24
SCIP notification number (Belgium)	6f4c2975-49a1-4639-be29-e53752b95fb0
SCIP notification number (Bulgaria)	bb74e391-e8c3-4041-9aeb-959a7ac3cd27
SCIP notification number (Czech Republic)	4280c7fd-438b-4b0e-965d-ee6e17b3fd3a
SCIP notification number (Denmark)	fc47b11f-b287-4a4b-a461-8c2927756c55
SCIP notification number (Finland)	c2e510f2-c813-4187-91e1-69dffe2f9819
SCIP notification number (France)	756fd24a-889f-46bd-a7d2-1f1c1d26ec5c
SCIP notification number (Germany)	463e7149-00b3-4bab-b38c-2732020c99c8
SCIP notification number (Hungary)	055de816-2613-4c2b-b7c7-6ec3393ec24a
SCIP notification number (Italy)	50028556-3f23-470b-9feb-62fd7ace9062
SCIP notification number (Netherlands)	e3075e2c-132f-42d2-bc9c-b0af024674bf
SCIP notification number (Poland)	312f46b2-60be-49c0-952c-8e69790d4d26
SCIP notification number (Romania)	82e9b537-d7a1-4cd1-bc8f-e449d081aae3
SCIP notification number (Sweden)	0e39ea5b-cf32-4042-8008-9e402cba1a55

## Approvals / Certificates

### General approvals



Approval	Standard	Certificate Name
EAC Brjansker Zertifizierungs- stelle	TP TC 020/2011	EAC_Certificate_RU_C- DE.AM02.B.00115_19

## Downloads

**Environmental Product Compliance**

Compliance Search			
Environmental Product Compliance 859-739			↓

**Documentation**

Bid Text			
859-739	19.02.2019	xml 3.79 KB	↓
859-739	20.02.2019	docx 15.37 KB	↓

Instruction Leaflet			
Relay modules, Opto-coupler modules	V 2.0.0 19.01.2022	pdf 2066.27 KB	↓

**CAD/CAE-Data**

CAD data	
2D/3D Models 859-739	↓

CAE data	
EPLAN Data Portal 859-739	↓
WSCAD Universe 859-739	↓
ZUKEN Portal 859-739	↓

**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



**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 devices



**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

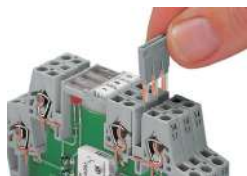
### Installation Notes

#### Conductor termination



Conductor termination

## Commoning



Easy commoning using adjacent jumpers

## Marking



Marking via Mini-WSB Quick Marking System