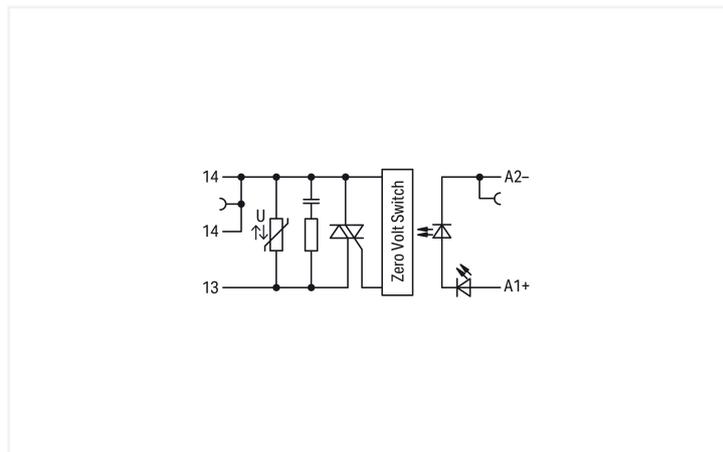
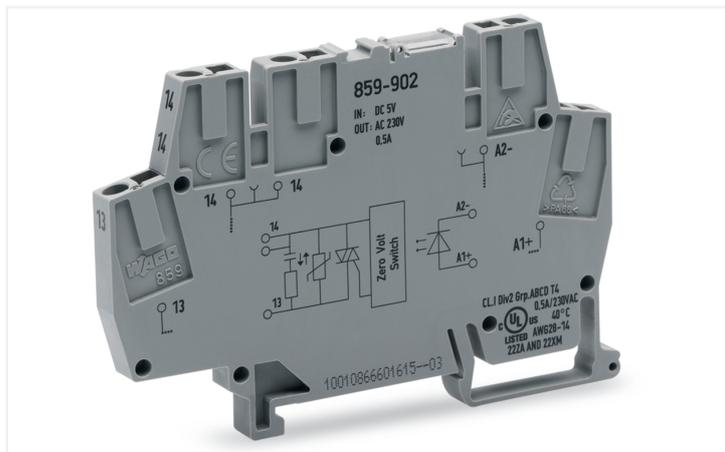


Data Sheet | Item Number: 859-902

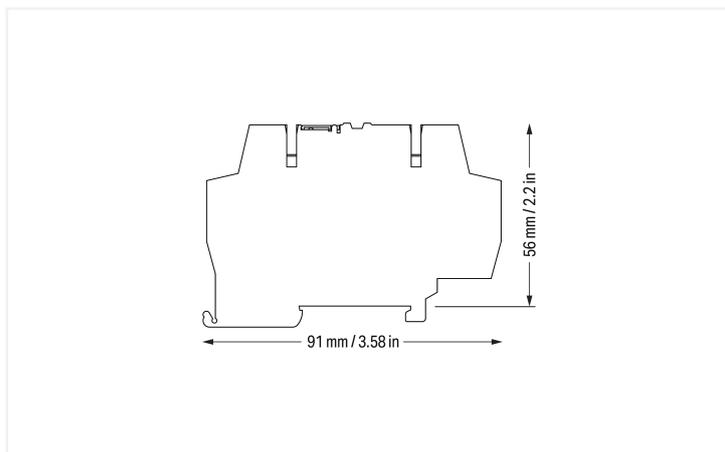
Optocoupler module; Nominal input voltage: 5 VDC; Output voltage range: 24 ... 260 VAC; Limiting continuous current: 0.5 A; 2-wire connection; zero-cross switching; Red status indicator; Module width: 6 mm; gray



<https://www.wago.com/859-902>



Color: ■ gray



Notes

Note

Optocouplers and solid state relays are designed for use in signal processing networks that are not supplied directly by the low-voltage power supply network.

Technical data

Control circuit

Nominal input voltage U_N	5 VDC
Input voltage range (low level)	0 ... 1 VDC
Input voltage range (high level)	4 ... 6.25 VDC
Nominal input current at U_N	8 mA

Load circuit

Circuit type	2-wire connection Zero-voltage switching
Limiting continuous current	0.5 A
Peak output current	30 A
Nominal output voltage	230 VAC
Output voltage range	24 ... 260 VAC (50 ... 60 Hz)
Voltage drop	≤ 1.2 VAC
Leakage current at rated voltage	≤ 1 mA
Switching current (min.)	50 mA
Turn-on time	≤ 10 ms

Load circuit

Turn-off time	≤ 10 ms
Switching frequency	50 Hz / 60 Hz

Signaling

Status indicator	Red LED
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Safety and protection

Rated Voltage	300 V
Type of circuits	Mains circuits
Overvoltage category	III
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	3.51 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)	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 ² / 28 ... 14 AWG
Fine-stranded conductor	0.08 ... 2.5 mm ² / 28 ... 14 AWG
Fine-stranded conductor; with insulated ferrule	0.08 ... 1.5 mm ² / 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)	Information on material specifications can be found here
Color	gray
Fire load	0.313 MJ
Weight	15.5 g

Environmental requirements

Ambient temperature (operation at U _N)	-25 ... +55 °C
Ambient temperature UL (operation at U _N)	-25 ... +40 °C
Ambient temperature (storage)	-40 ... +70 °C
Processing temperature	-25 ... +50 °C
Temperature range of connection cable	≥ (T _{ambient} + 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 UL 508
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Commercial data

Product Group	6 (INTERFACE ELECTRONIC)
PU (SPU)	1 pcs
Packaging type	Bag
Country of origin	DE
GTIN	4066966854923
Customs tariff number	85365011888

Product Classification

UNSPSC	39121521
eCl@ss 10.0	27-26-15-03
eCl@ss 9.0	27-26-15-03
ETIM 9.0	EC001504
ETIM 10.0	EC001504
ECCN	NO US CLASSIFICATION

Environmental Product Compliance

CAS-No.	1303-86-2 7439-92-1 79-94-7
REACH Candidate List Substance	2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol Diboron trioxide Lead
RoHS Compliance Status	Compliant,With Exemption
RoHS Exemption	7(a)
SCIP notification number (Austria)	9ac7fc48-a2ac-4908-906f-2b8cd4b37ec8
SCIP notification number (Belgium)	ef044561-9023-42f7-abe1-35525f06aaac
SCIP notification number (Bulgaria)	b5fdb4d2-f21a-445d-8e1d-72344877b87b
SCIP notification number (Czech Republic)	4f6d81b3-e526-44bc-a071-f41fdefb2f08
SCIP notification number (Denmark)	67840c7d-a36a-49f1-9ca7-921349e558da
SCIP notification number (Finland)	0b93c8a8-a04e-4fbb-b95c-d4ac7eea764d
SCIP notification number (France)	03814446-4c00-41e7-ace8-a9e1aa4b1564
SCIP notification number (Germany)	a807a295-6019-4843-afd7-c34c4dbc4c9c
SCIP notification number (Hungary)	68ad8a15-753f-456e-87b2-b80a946a1d1d
SCIP notification number (Italy)	07c64cbd-2e81-4fa8-abe1-da620760db84
SCIP notification number (Netherlands)	c650d6ea-8f2f-44a0-911d-e4c8a83fa040
SCIP notification number (Poland)	9337548c-3ccd-432b-9012-36dd5a19cb19
SCIP notification number (Romania)	54c2b9f2-9a0f-4cf6-92a8-a7a1b24f8dd8
SCIP notification number (Sweden)	5ad19771-83e3-4202-bcc0-d3bc81ca261e

Approvals / Certificates

General approvals



Approval	Standard	Certificate Name
EAC GZO Almaty Standart	TP TC 004/2011	EAC CoC 03078
EAC GZO Almaty Standart	TP TC 020/2011	EAC CoC 03081
UL 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 WAGO GmbH & Co. KG	-	-
UK-Declaration of Conformity WAGO GmbH & Co. KG	-	-

Approvals for hazardous areas



Approval	Standard	Certificate Name
UL Underwriters Laboratories Inc. (HAZARDOUS LOCATIONS)	ANSI/ISA 12.12.01	E198726

Downloads

Environmental Product Compliance

Compliance Search
Environmental Product Compliance 859-902 ↓

Documentation

Bid Text			
859-902	19.02.2019	xml 3.78 KB	↓
859-902	20.02.2019	docx 15.42 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 859-902 ↓

CAE data
EPLAN Data Portal 859-902 ↓
WSCAD Universe 859-902 ↓
ZUKEN Portal 859-902 ↓

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; 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

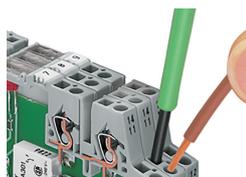


Item No.: 210-720

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

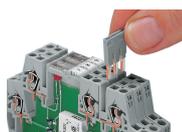
Installation Notes

Conductor termination



Conductor termination

Commoning



Easy commoning using adjacent jumpers

Marking



Marking via Mini-WSB Quick Marking System