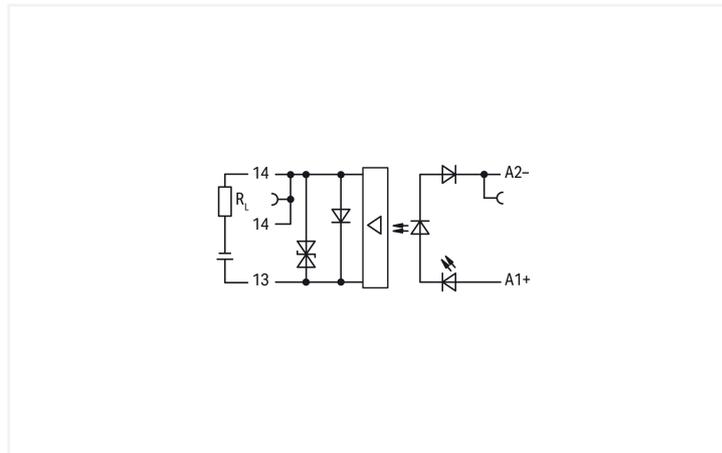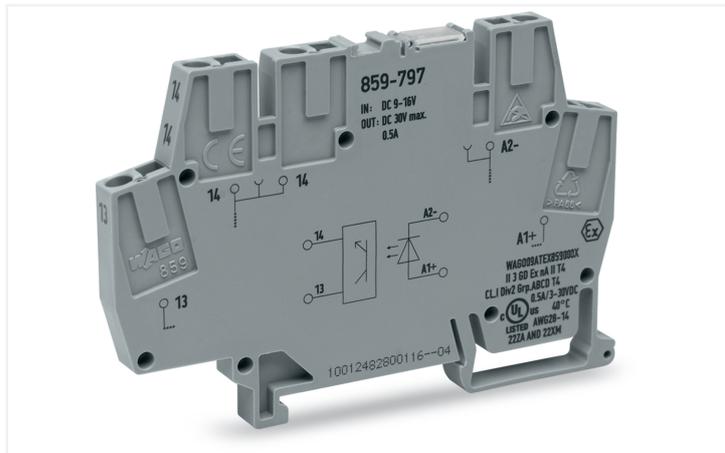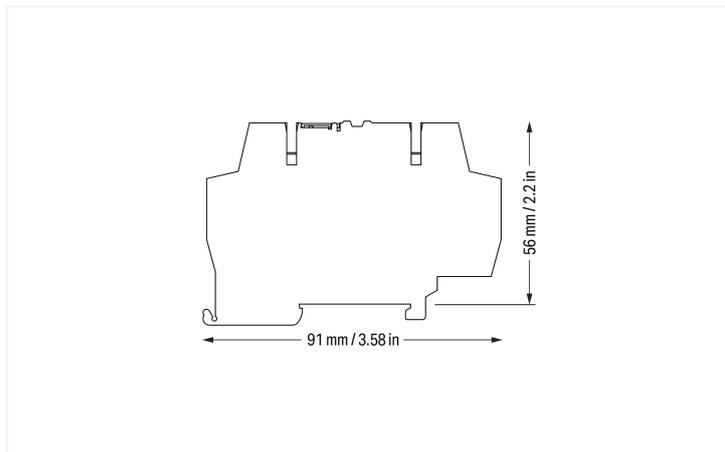# Data Sheet | Item Number: 859-797

Optocoupler module; Nominal input voltage: 12 VDC; Output voltage range: 3 … 30 VDC; Limiting continuous current: 0.5 A; 2-wire connection; Red status indicator; Module width: 6 mm; gray

https://www.wago.com/859-797

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	12 VDC
Input voltage range (low level)	0 … 5 VDC
Input voltage range (high level)	9 … 16 VDC
Nominal input current at U_N	10 mA

Load circuit

Circuit type	2-wire connection
Limiting continuous current	0.5 A
Peak output current	2.7 A
Nominal output voltage	24 VDC
Output voltage range	3 … 30 VDC
Voltage drop	≤ 0.2 VDC
Turn-on time	≤ 15 μs
Turn-off time	≤ 100 μs
Switching frequency	≤ 2.5 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)	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 mm² / 28 … 14 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 14 AWG
Fine-stranded conductor; with insulated ferrule	0.08 … 1.5 mm² / 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
Insulation material (main housing)	Polyamide (PA66)
Material group	I
Flammability class per UL94	V0
Fire load	0.313 MJ
Weight	18.6 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	$\geq (T_{ambient} + 20\ K)$
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

Commercial data

Product Group	6 (INTERFACE ELECTRONIC)
PU (SPU)	10 pcs
Packaging type	Box
Country of origin	DE
GTIN	4055143606424
Customs tariff number	85365005000

Product Classification

UNSPSC	39121524
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
	1317-36-8
	7439-92-1
	75980-60-8
	79-94-7
REACH Candidate List Substance	2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol
	Diboron trioxide
	Lead
	Lead monoxide
	Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-
RoHS Compliance Status	Compliant,With Exemption
RoHS Exemption	7(a)
SCIP notification number (Austria)	d5bb99e2-d3f0-4258-bd9f-0de111dab5a2
SCIP notification number (Belgium)	8ce2d25e-a46f-4251-ba58-7a025a47d5ec
SCIP notification number (Bulgaria)	ee4054bc-9313-4afe-8ff8-606d92038cca
SCIP notification number (Czech Republic)	21856c07-128d-48d0-ae1e-46b324823817
SCIP notification number (Denmark)	a0b484d3-d3ef-49fa-b7fa-d13ae786dde0
SCIP notification number (Finland)	4b43ce77-22a1-483d-a4a3-a9e9aabe6662
SCIP notification number (France)	1083a402-b64d-409b-a34b-65e666a55260
SCIP notification number (Germany)	26eeaef9-7649-4e34-af78-0d797eb249b0
SCIP notification number (Hungary)	9d02a6df-0dbb-4dd4-90bc-38cda8011c2c
SCIP notification number (Italy)	f9b1bf24-706c-44d7-a5bc-75e1899966fb
SCIP notification number (Netherlands)	df4306e7-3f47-46be-9fac-f7a3e2d9e33e
SCIP notification number (Poland)	b1c77cad-7cd2-42ad-a529-5d1df1d562fb
SCIP notification number (Romania)	411aaff8-8706-4a35-b044-03174f4c0e84
SCIP notification number (Sweden)	3cb2496c-2f6d-44fa-aebb-b0c3d6e9fada

Approvals / Certificates

General approvals

Approval	Standard	Certificate Name
EAC GZO Almaty Standart	TP TC 020/2011	EAC CoC 03081
UL Underwriters Laboratories Inc. (ORDINARY LOCATI-ONS)	UL 508	E175199 Sec.4

Approvals for hazardous areas

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

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 859-797	↓

Documentation

Bid Text

859-797	19.02.2019	xml 3.79 KB	↓
859-797	20.02.2019	docx 15.36 KB	↓

Instruction Leaflet

CCC Ex (Additional information)	26.04.2023	pdf 132.68 KB	↓
Relay modules, Opto-coupler modules	V 2.0.0 19.01.2022	pdf 2066.27 KB	↓

CAD/CAE-Data

CAD data

2D/3D Models 859-797	↓

CAE data

EPLAN Data Portal 859-797	↓
WSCAD Universe 859-797	↓

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
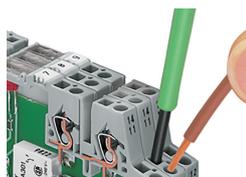
1.1.6 Tool

1.1.6.1 Operating tool

Item No.: 210-720
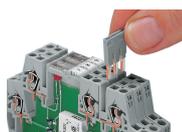Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured

Installation Notes

Conductor termination

Conductor termination

Commoning

Easy commoning using adjacent jumpers

Marking

Marking via Mini-WSB Quick Marking System

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

Current addresses can be found at:: www.wago.com