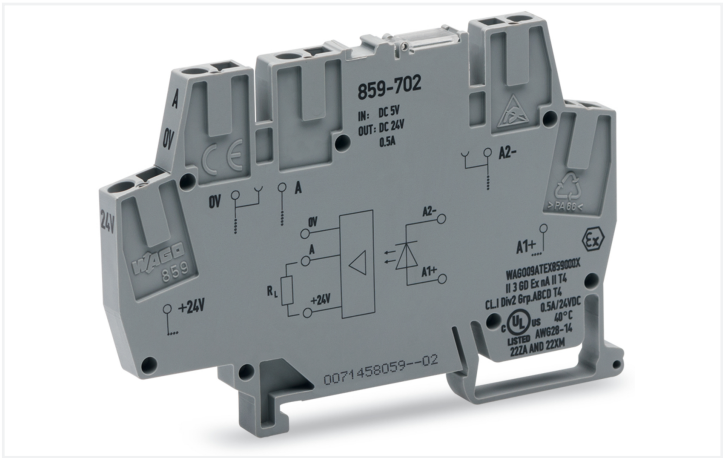


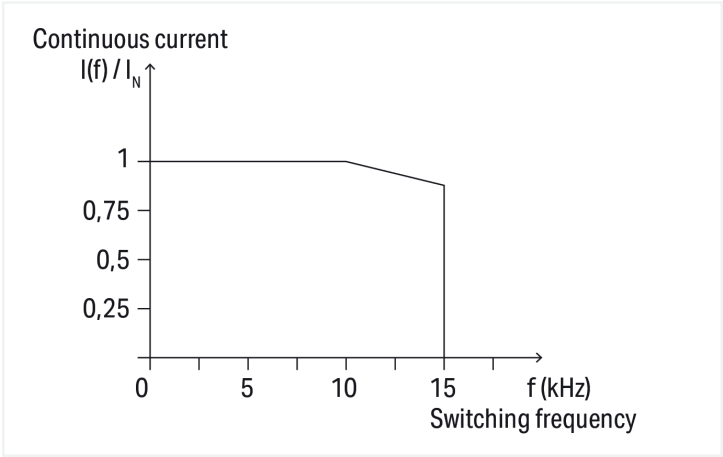
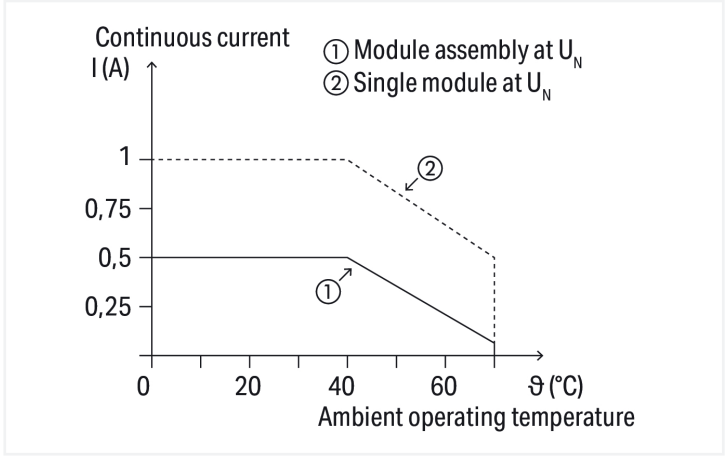
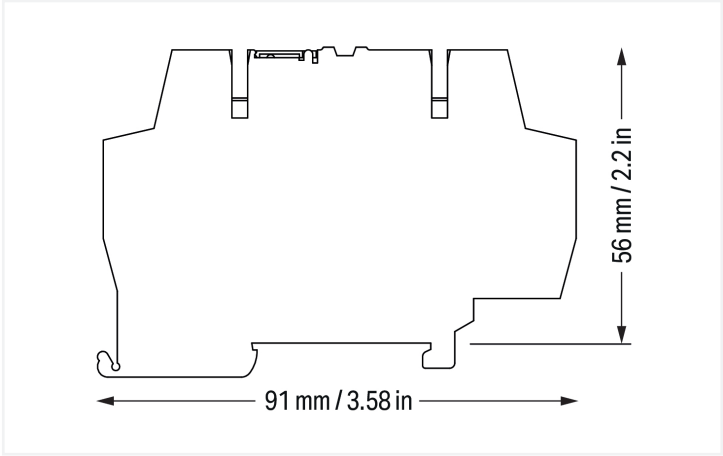
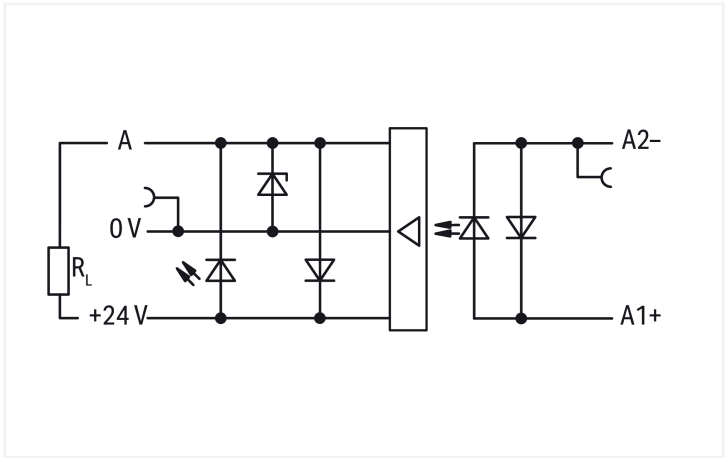
Data Sheet | Item Number: 859-702

Optocoupler module; Nominal input voltage: 5 VDC; Output voltage range: 15 ... 30 VDC; Limiting continuous current: 1 A; 3-wire connection/low-side switching; Frequency 15 kHz; Red status indicator; Module width: 6 mm; gray

<https://www.wago.com/859-702>



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		Load circuit	
Nominal input voltage U _N	5 VDC	Circuit type	3-wire connection Low-side switching
Input voltage range (low level)	0 ... 1.5 VDC	Limiting continuous current	1 A
Input voltage range (high level)	4 ... 6.25 VDC	Nominal output voltage	24 VDC
Nominal input current at U _N	11.7 mA	Output voltage range	15 ... 30 VDC
		Voltage drop	≤ 1.3 VDC
		Leakage current at rated voltage	≤ 1 µA
		Turn-on time	≤ 4 µs
		Turn-off time	≤ 17 µs
		Switching frequency	≤ 15 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	0.2 ... 2.5 mm² / 24 ... 14 AWG
Fine-stranded conductor	0.14 ... 2.5 mm² / 26 ... 14 AWG
Fine-stranded conductor; with insulated ferrule	0.14 ... 1.5 mm² / 26 ... 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	0.338 MJ
Weight	18.3 g

Environmental requirements	
Ambient temperature (operation at U _N)	-40 ... +70 °C
Ambient temperature UL (operation at U _N)	-40 ... +40 °C
Ambient temperature (storage)	-40 ... +85 °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 EN 61373 UL 508

Commercial data	
Product Group	6 (INTERFACE ELECTRONIC)
PU (SPU)	1 pcs
Packaging type	Box
Country of origin	DE
GTIN	4055143604673
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 8.0	EC001504
ECCN	NO US CLASSIFICATION



Environmental Product Compliance	
CAS-No.	1303-86-2 1317-36-8 7439-92-1 79-94-7
REACH Candidate List Substance	2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol Diboron trioxide Lead Lead monoxide
RoHS Compliance Status	Compliant,With Exemption
RoHS Exemption	7(a) 7(c)-I
SCIP notification number (Austria)	c0c429b8-b963-4033-9eb6-a83265999ee3
SCIP notification number (Belgium)	473cf9fe-19a6-4aff-91ee-0f528d956901
SCIP notification number (Bulgaria)	6ffc8186-6a2e-4cc2-ac47-4be7d8c98d14
SCIP notification number (Czech Republic)	32c0f01a-cd18-4e25-87c7-6e2528a5b2a9
SCIP notification number (Denmark)	c722c36f-29ab-4449-b503-31e55ab70764
SCIP notification number (Finland)	d9fe71bb-90de-41ea-a3ab-0c7456c7e350
SCIP notification number (France)	1f633d51-1540-4ec9-941b-c9d778efd901
SCIP notification number (Germany)	46013965-4536-4ff8-9010-303bf6dacc26
SCIP notification number (Hungary)	b1073416-4fb3-4d9a-af15-dcc19afc7652
SCIP notification number (Italy)	0d6933b0-8d26-4036-95db-15ca3764efb8
SCIP notification number (Netherlands)	82534054-3721-42ea-b0dc-460d8fdbcbe5
SCIP notification number (Poland)	0a5ac87f-063e-4241-b55d-6675bf946d30
SCIP notification number (Romania)	80fa5b2e-b632-4e60-9d3c-fd81e5993956
SCIP notification number (Sweden)	b97515fe-c12b-44d4-a29e-0619ea1fbdde

Approvals / Certificates		
General approvals		Approvals for hazardous areas
		
Approval	Standard	Certificate Name
EAC GZO Almaty Standart	TP TC 020/2011	EAC CoC 03081
UL Underwriters Laboratories Inc. (ORDINARY LOCATIONS)	UL 508	E175199 Sec.4
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 LOCATIONS)	ANSI/ISA 12.12.01	E198726

Downloads	
Environmental Product Compliance	
Compliance Search	
Environmental Product Compliance 859-702	



Documentation				
Bid Text				Instruction Leaflet
859-702	20.02.2019	docx 15.26 KB		CCC Ex (Additional information) 26.04.2023 pdf 132.68 KB
859-702	19.02.2019	xml 3.77 KB		Relay modules, Opto-coupler modules V 2.0.0 19.01.2022 pdf 2066.27 KB

CAD/CAE-Data	
CAD data	CAE data
2D/3D Models 859-702 	EPLAN Data Portal 859-702
	WSCAD Universe 859-702
	ZUKEN Portal 859-702

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



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

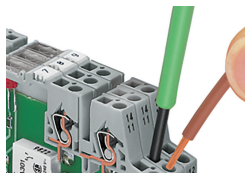


Item No.: 210-720

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

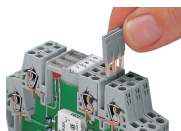
Installation Notes

Conductor termination



Conductor termination

Commoning



Easy commoning using adjacent jumpers

Marking



Marking via Mini-WSB Quick Marking System