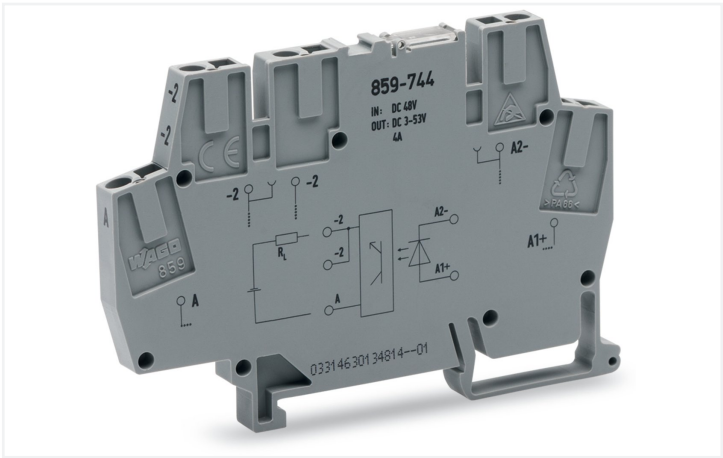


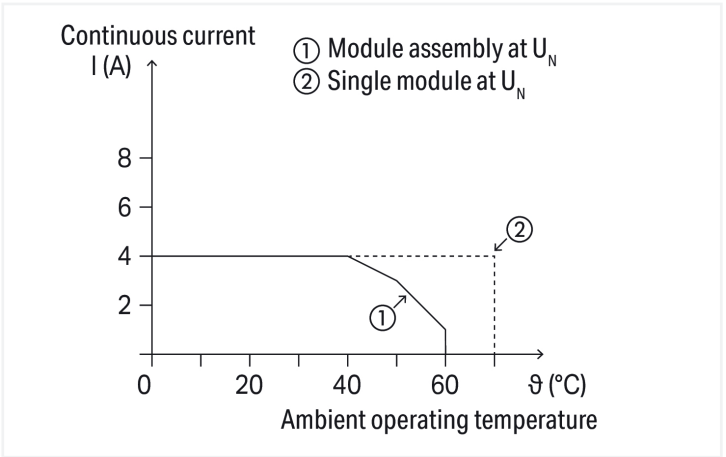
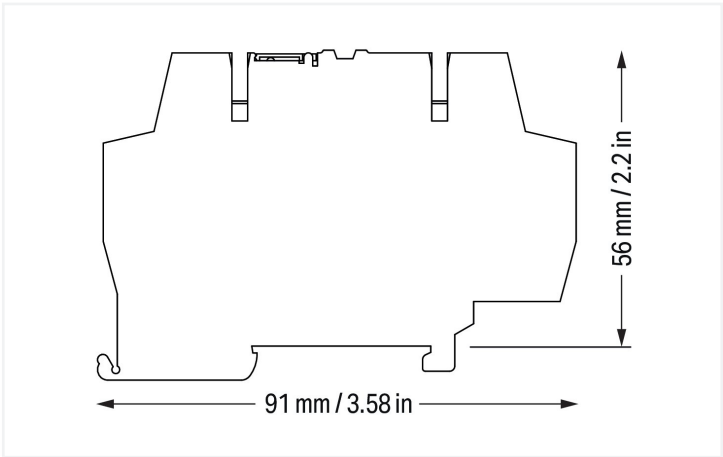
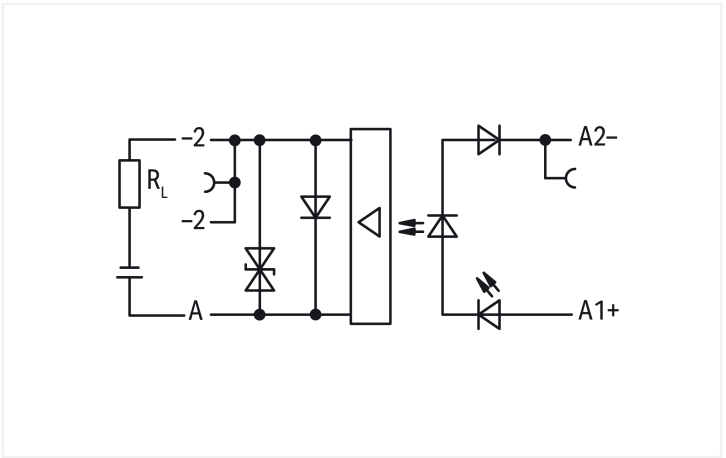
Data Sheet | Item Number: 859-744

Optocoupler module; Nominal input voltage: 12 ... 48 VDC; Output voltage range: 10 ... 53 VDC; Limiting continuous current: 4 A; 2-wire connection; Module width: 6 mm; gray

<https://www.wago.com/859-744>



Color: ■ gray



Current-carrying capacity curve

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	DC 12 ... 48 V	Circuit type	2-wire connection
Input voltage range (low level)	DC 0 ... 4 V	Limiting continuous current	4 A
Input voltage range (high level)	DC 10 ... 53 V	Peak output current	30 A
Nominal input current at U_N	5 mA	Output voltage range	DC 3 ... 53 V
		Voltage drop	≤ 0.2 VDC
		Turn-on time	≤ 200 μ s
		Turn-off time	≤ 420 μ s
		Switching frequency	≤ 100 Hz



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 (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	0.338 MJ
Weight	19.3 g

Environmental requirements	
Ambient temperature (operation at U _N)	-40 ... +70 °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 EN 61373

Commercial data	
Product Group	6 (INTERFACE ELECTRONIC)
eCl@ss 10.0	27-26-15-03
eCl@ss 9.0	27-26-15-03
ETIM 9.0	EC001504
ETIM 8.0	EC001504
PU (SPU)	10 pcs
Packaging type	Box
Country of origin	DE
GTIN	4055143605458
Customs tariff number	85365005000

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	6(c) 7(a) 7(c)-I 7(c)-II
SCIP notification number (Austria)	3c5ae91d-3dbd-47fe-ba95-831f3d0ae746
SCIP notification number (Belgium)	ee379b01-b66c-49de-8871-6c3ace50d6e7
SCIP notification number (Bulgaria)	5d98808b-3c3c-453a-9d5c-5dd2603e77c8
SCIP notification number (Czech Republic)	78d8ffd8-b8e3-4c75-923e-292ba881a9c3
SCIP notification number (Denmark)	ffd6563d-fd6e-4e02-b2d8-b11c5438db60
SCIP notification number (Finland)	f2c5bd8b-07d9-4d80-bbd3-01b6ff376fce
SCIP notification number (France)	9f84d13f-4e6f-4215-8b5d-adc883494d63
SCIP notification number (Germany)	90204e81-23c3-491d-bdfe-8bc653cfef2f
SCIP notification number (Hungary)	13b3e647-e5b2-4699-aaa3-7d7773feb5c8
SCIP notification number (Italy)	88a674a7-888f-442e-9f55-7d19bf03705c
SCIP notification number (Netherlands)	040bf4f5-5d5a-41e6-a48b-3d5c45b4fe2e
SCIP notification number (Poland)	c6ab1053-0506-4ff9-97a1-89685d5f8c35
SCIP notification number (Romania)	4deaca40-f499-4e29-a025-3ba7ab2f01db
SCIP notification number (Sweden)	10c93826-46fb-4fa6-86ca-a24b9fb4b9f5

Approvals / Certificates		
General approvals		Declarations of conformity and manufacturer's declarations
Approval	Standard	Certificate Name
EAC GZO Almaty Standart	TP TC 020/2011	EAC CoC 03081
		EU-Declaration of Confor- mity WAGO GmbH & Co. KG



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

Downloads

Environmental Product Compliance

Compliance Search
Environmental Product Compliance 859-744

Documentation

Bid Text			
859-744	19.02.2019	xml 3.83 KB	↓
859-744	20.02.2019	docx 15.43 KB	↓

Instruction Leaflet			
CCC Ex (Additional in- formation)	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 859-744

CAE data
EPLAN Data Portal 859-744
WSCAD Universe 859-744
ZUKEN Portal 859-744

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



1.1.3.1 Jumper



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

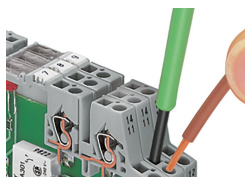
1.1.6.1 Operating tool



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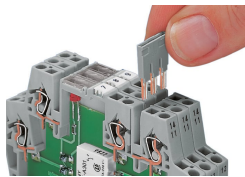
Installation Notes

Conductor termination



Conductor termination

Commoning



Easy commoning using adjacent jumpers

Marking



Marking via Mini-WSB Quick Marking System