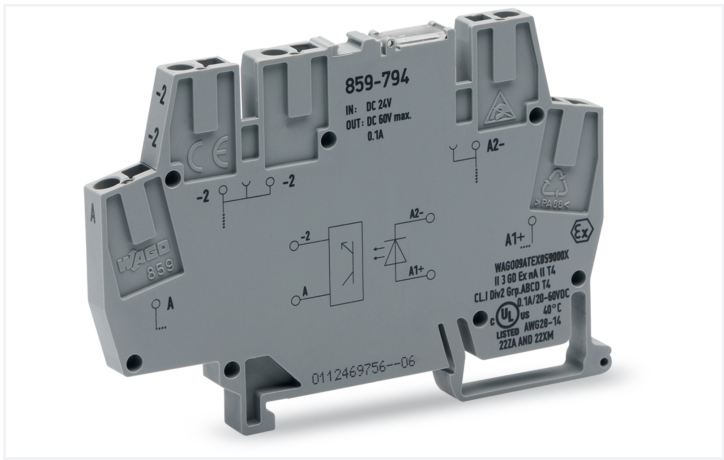


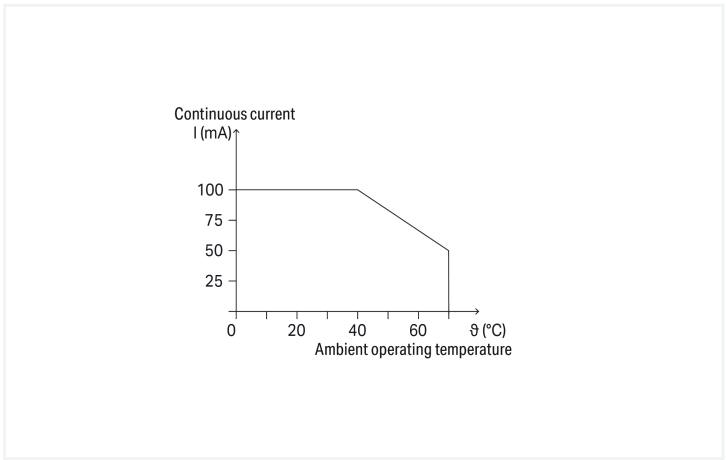
Data Sheet | Item Number: 859-794

Optocoupler module; Nominal input voltage: 24 VDC; Output voltage range: 9 ... 60 VDC; Limiting continuous current: 0.1 A; 2-wire connection; Railway; Red status indicator; Module width: 6 mm; gray

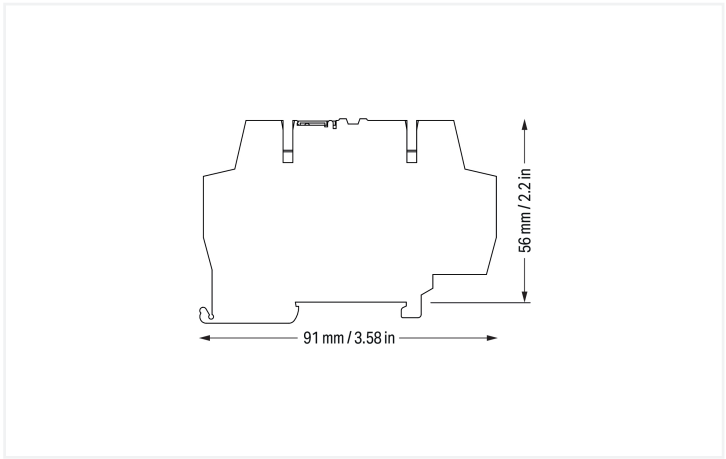
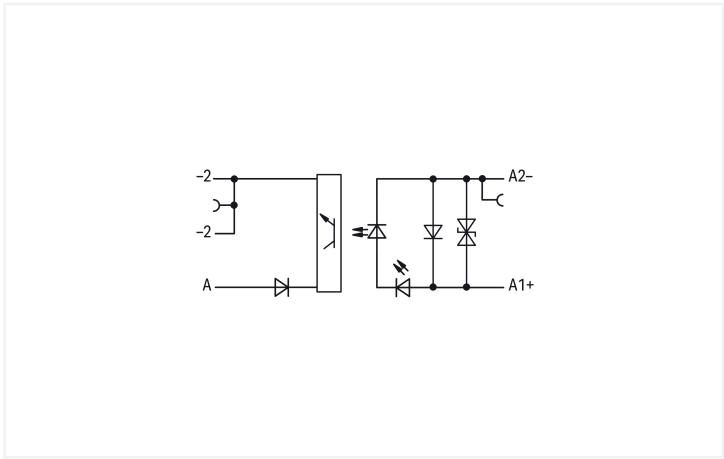
<https://www.wago.com/859-794>



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	24 VDC	Circuit type	2-wire connection
Input voltage range (low level)	0 ... 5 VDC	Limiting continuous current	0.1 A
Input voltage range (high level)	16 ... 30 VDC	Output voltage range	9 ... 60 VDC
Nominal input current at U_N	5 mA	Voltage drop	≤ 2 VDC
		Leakage current at rated voltage	$\leq 25 \mu A$
		Turn-on time	$\leq 20 \mu s$
		Turn-off time	$\leq 120 \mu s$
		Switching frequency	≤ 1.5 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)	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 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
Insulation material (main housing)	Polyamide (PA66)
Material group	I
Flammability class per UL94	V0
Fire load	0.283 MJ
Weight	18.2 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 50121-3-2 EN 61373 UL 508

Commercial data	
Product Group	6 (INTERFACE ELECTRONIC)
PU (SPU)	1 pcs
Packaging type	Bag
Country of origin	CN
GTIN	4066966779240
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) 7(c)-I 7(c)-II
SCIP notification number (Austria)	97e20fec-7ef8-4308-9df4-b9beadf1ef91
SCIP notification number (Belgium)	afaadc22-038e-4c5d-ac39-69df25e85c26
SCIP notification number (Bulgaria)	93632ac1-b492-4946-9ed7-377e0daaed60
SCIP notification number (Czech Republic)	b9cd1975-f211-470e-b780-095c63e5f498
SCIP notification number (Denmark)	dee75a1a-c78d-4336-b2de-81d6bff7d37a
SCIP notification number (Finland)	f2bcdbd1-947a-4580-b997-80bd91b96611
SCIP notification number (France)	efa2c40b-aac0-4647-8b02-79ce02e41cee
SCIP notification number (Germany)	cc674ec4-4da2-402f-872f-414caffff011
SCIP notification number (Hungary)	ba812f41-53db-45a6-b453-93d6ef534a9b
SCIP notification number (Italy)	e7f6eb14-bc4e-46df-b8d3-7fbecbba411b7
SCIP notification number (Netherlands)	81e30e1d-6dcd-47c8-a3c3-d049af7b1761
SCIP notification number (Poland)	02b6ce32-a5c5-4957-be86-6b44c3b6f522
SCIP notification number (Romania)	15bbf093-9f9b-4fb4-be0c-e91eb4f3f17f
SCIP notification number (Sweden)	9a68c8aa-c768-4c87-a1ea-e685293e288d

Approvals / Certificates

General approvals



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

Declarations of conformity and manufacturer's declarations

Approval	Standard	Certificate Name
EU-Declaration of Conformity 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
UL Underwriters Laboratories Inc. (HAZARDOUS LOCATIONS)	ANSI/ISA 12.12.01	E198726

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 859-794

↓

Documentation

Bid Text

859-794	19.02.2019	xml 3.86 KB	↓
859-794	20.02.2019	docx 15.42 KB	↓

Instruction Leaflet

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



CAD/CAE-Data	
CAD data	CAE data
2D/3D Models 859-794 	EPLAN Data Portal 859-794 
	WSCAD Universe 859-794 
	ZUKEN Portal 859-794 

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



1.1.3.1 Jumper

 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
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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

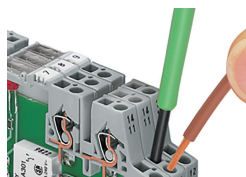
1.1.6.1 Operating tool

**Item No.: 210-720**

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

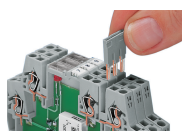
Installation Notes

Conductor termination



Conductor termination

Commoning



Easy commoning using adjacent jumpers

Marking



Marking via Mini-WSB Quick Marking System