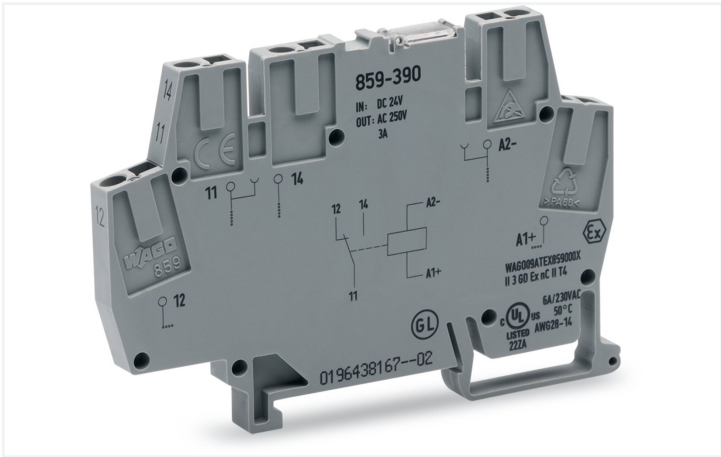


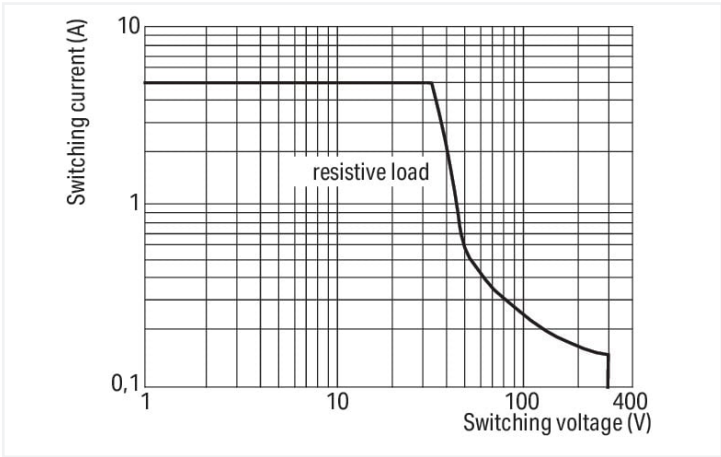
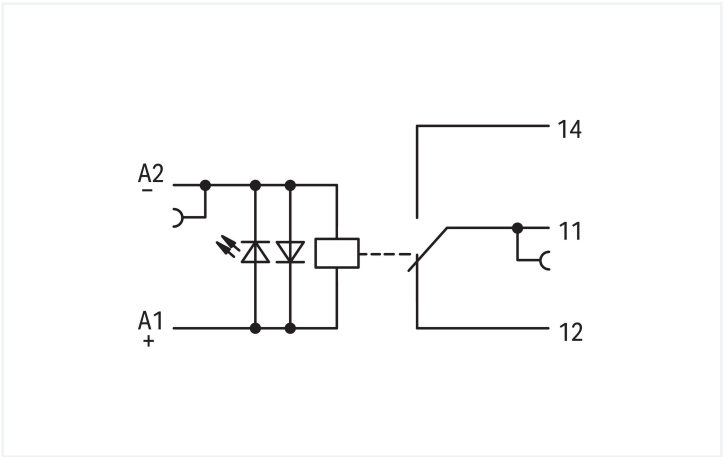
Data Sheet | Item Number: 859-390

Relay module; Nominal input voltage: 24 VDC; 1 changeover contact; Railway; Red status indicator; Module width: 6 mm; 2,50 mm²; gray

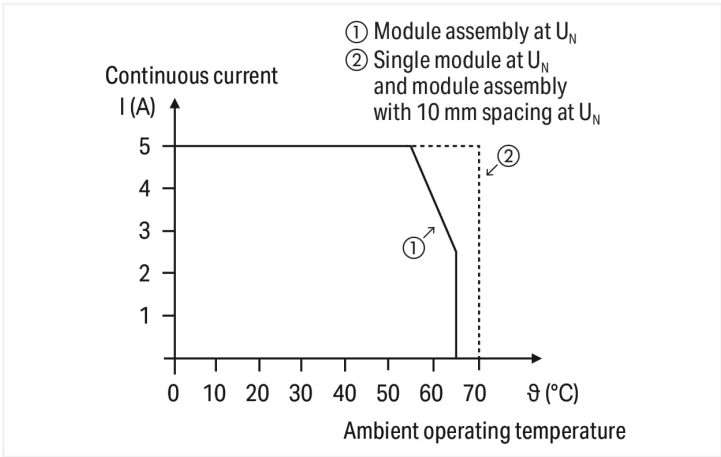
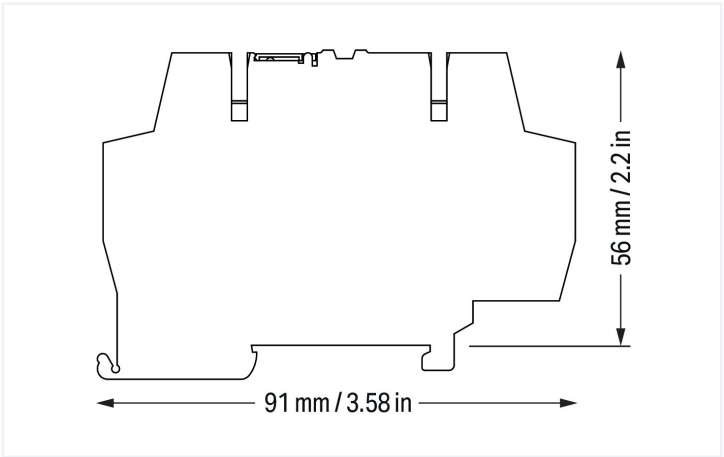
<https://www.wago.com/859-390>



Color: ■ gray



DC load limit curve



Current-carrying capacity curve



Notes		
Note		To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.

Technical data

Control circuit	
Nominal input voltage U _N	24 VDC
Input voltage range	-30 ... +25 %
Nominal input current at U _N	12 mA

Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	AgSnO ₂
Limiting continuous current	5 A
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1250 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / 250 VAC; DC-13: 2 A / 24 VDC
Recommended minimum load	10 V / 10 mA; 24 V / 1 mA
Pull-in time (typ.)	6 ms
Drop-out time (typ.)	6 ms
Bounce time (typ.)	3.5 ms
Electrical life (NO; resistive load; 23 °C)	50 x 10 ³ switching operations
Mechanical life	5 x 10 ⁶ switching operations
Switching frequency with/without load (max.)	6 min ⁻¹ / 180 min ⁻¹

Signaling	
Status indicator	Red LED

Safety and protection		
Rated Voltage		300 V
Rated impulse withstand voltage		4 kV
Overvoltage category		III
Pollution degree		2
Dielectric strength (control/load circuit) (AC, 1 min)		4 kVrms
Dielectric strength (open contact) (AC, 1 min)		1 kVrms
Insulation type (control/load circuit)		Reinforced insulation (safe isolation)
Insulation type (adjacent devices)		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	1.274 MJ
Weight	22.9 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 61810-1 EN 61373 UL 508 DNV

Commercial data	
Product Group	6 (INTERFACE ELECTRONIC)
eCl@ss 10.0	27-37-16-01
eCl@ss 9.0	27-37-16-01
ETIM 9.0	EC001437
ETIM 8.0	EC001437
PU (SPU)	10 pcs
Packaging type	Box
Country of origin	CN
GTIN	4055143607629
Customs tariff number	85364900990



Environmental Product Compliance	
CAS-No.	7439-92-1 79-94-7
REACH Candidate List Substance	2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol Lead
RoHS Compliance Status	Compliant,With Exemption
RoHS Exemption	7(a)
SCIP notification number (Austria)	b80ae32e-17e3-494b-bd67-c82e462fb581
SCIP notification number (Belgium)	7bca437d-7163-4314-ad00-6d5c2e89959c
SCIP notification number (Bulgaria)	b4d2cc36-ab4c-496b-9e7e-7bb7c557d2e3
SCIP notification number (Czech Republic)	4e3021bc-9521-4bc5-97ba-9760738bca56
SCIP notification number (Denmark)	00cad622-a5a6-4fb2-8481-9e7bbf96c3f4
SCIP notification number (Finland)	4c744e47-cbe4-427d-bbe2-9253e56145f5
SCIP notification number (France)	97e502b0-2db1-430e-a345-cd6118c123b2
SCIP notification number (Germany)	e8d89f4c-5b4d-4810-b2e5-eea149c4b9a4
SCIP notification number (Hungary)	5f5a0e35-6873-4a2c-bd24-e453f0c7a31e
SCIP notification number (Italy)	741e839c-bbd6-47d1-8d3d-d6c1d1bc11ce
SCIP notification number (Netherlands)	1721e0ca-aa62-442e-b50e-073d56d21186
SCIP notification number (Poland)	fffd907d-c5ea-4395-a795-4496c3dadb1f
SCIP notification number (Romania)	bb944c68-d93e-4936-a2c6-f83d009e6f49
SCIP notification number (Sweden)	6cab1041-53ac-4e56-b2f4-c32162d6086f

Approvals / Certificates			
General approvals		Declarations of conformity and manufacturer's declarations	
EAC UL			
Approval	Standard		Certificate Name
EAC	TP TC 004/2011		EAC CoC 03078
GZO Almaty Standart			
UL	UL 508	E175199 Sec.4	
Underwriters Laboratories Inc. (ORDINARY LOCATIONS)			

Approvals for marine applications		
		
Approval	Standard	Certificate Name
DNV DNV Germany GmbH	DNV-CG-0339,Aug.2021	TAA00001D1

Approvals for hazardous areas		
		
Approval	Standard	Certificate Name
CCC CNEX	CNCA-C23-01	2021312304000982 (Ex ec nC IIC T4 Gc)
UKEx WAGO GmbH & Co. KG	EN 60079-0	UKCA_WA- GO22UKEX007X_ec nC



Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 859-390

Download icon

Documentation					
Bid Text			Instruction Leaflet		
859-390	19.02.2019	xml 4.51 KB	CCC Ex (Additional information)	26.04.2023	pdf 132.68 KB
859-390	20.02.2019	docx 17.00 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 859-390

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CAE data

EPLAN Data Portal 859-390

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WSCAD Universe 859-390

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ZUKEN Portal 859-390

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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

128x64x1mm

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

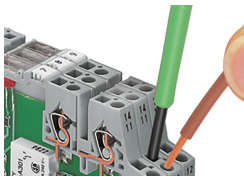
1.1.6.1 Operating tool



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

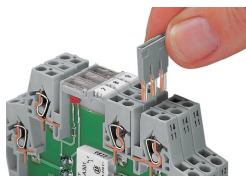
Installation Notes

Conductor termination



Conductor termination

Commoning



Easy commoning using adjacent jumpers

Marking



Marking via Mini-WSB Quick Marking System