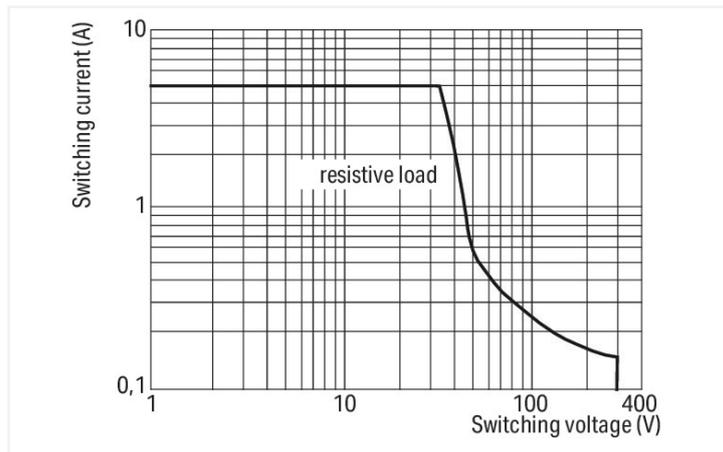
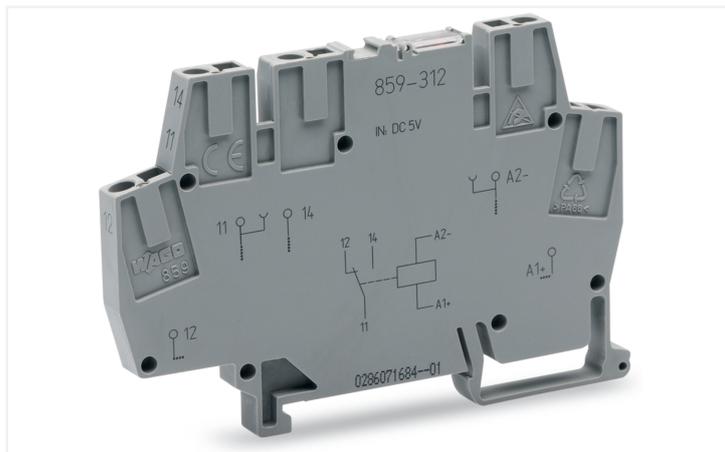


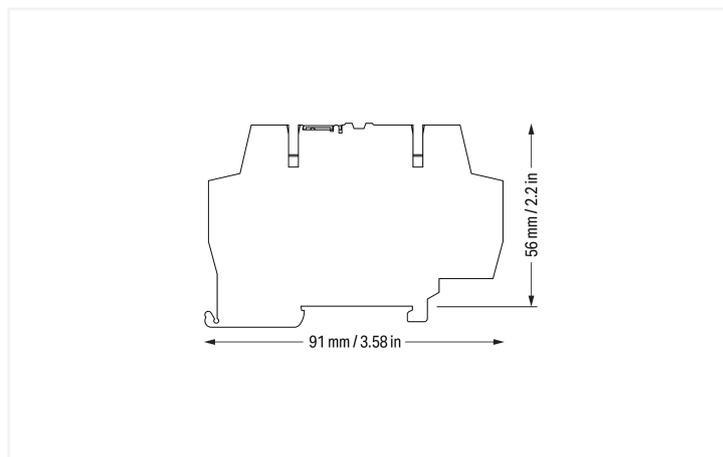
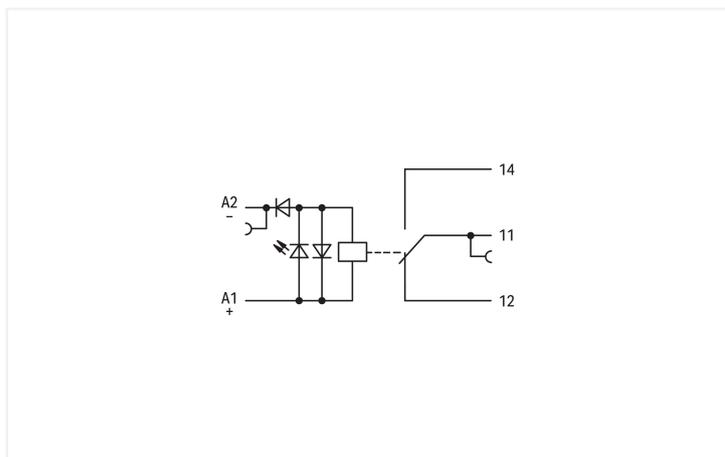
Data Sheet | Item Number: 859-312

Relay module; Nominal input voltage: 5 VDC; 1 changeover contact; with gold contacts; Red status indicator; Module width: 6 mm

<https://www.wago.com/859-312>



DC load limit curve



Notes

Note To prevent damaging the gold layer, 30 V switching voltages and 50 mA currents must not be exceeded. Higher switching power eventually evaporates the gold layer. The resulting deposits in the housing may reduce service life. 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	5 VDC
Input voltage range	-15 ... +20 %
Nominal input current at U_N	31 mA

Load circuit	
Number of changeover/switchover contacts	1
Contact material (relay)	AgNi + Au
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	1 V / 1 mA / 1 mW
Pull-in time (typ.)	15 ms

Load circuit

Drop-out time (typ.)	25 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
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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 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
Insulation material (main housing)	Polyamide (PA66)
Material group	I
Flammability class per UL94	V0
Fire load	0.313 MJ
Weight	15.4 g

Environmental requirements

Ambient temperature (operation at U_N)	-40 ... +50 °C
Ambient temperature (storage)	-40 ... +70 °C
Processing temperature	-25 ... +50 °C
Temperature range of connection cable	$\geq (T_{\text{ambient}} + 20 \text{ K})$
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 DNV UL 508
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Commercial data

Product Group	6 (INTERFACE ELECTRONIC)
PU (SPU)	1 pcs
Packaging type	Bag
Country of origin	DE
GTIN	4066966423815
Customs tariff number	85364900990

Product Classification

UNSPSC	39122334
eCl@ss 10.0	27-37-16-01
eCl@ss 9.0	27-37-16-01
ETIM 9.0	EC001437
ETIM 10.0	EC001437
ECCN	NO US CLASSIFICATION

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 (Bulgaria)	513da487-690e-4cc7-b58c-d234f3bedf3e
SCIP notification number (Czech Republic)	0a3b6135-c4df-465b-a87c-624a00570cf2

Approvals / Certificates

General approvals

Declarations of conformity and manufacturer's declarations



Approval	Standard	Certificate Name
EAC GZO Almaty Standart	TP TC 004/2011	EAC CoC 03078

Approval	Standard	Certificate Name
EU-Declaration of Confor- mity WAGO GmbH & Co. KG	-	-
UK-Declaration of Confor- mity WAGO GmbH & Co. KG	-	-

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 859-312



Documentation

Bid Text

859-312	19.02.2019	xml 4.92 KB	
859-312	20.02.2019	docx 17.15 KB	

Instruction Leaflet

Relay modules, Opto-coupler modules	V 2.0.0 19.01.2022	pdf 2066.27 KB	
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CAD/CAE-Data

CAD data

2D/3D Models 859-312



CAE data

EPLAN Data Portal 859-312	
WSCAD Universe 859-312	
ZUKEN Portal 859-312	

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

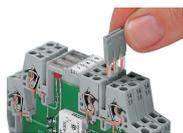
Installation Notes

Conductor termination



Conductor termination

Commoning



Easy commoning using adjacent jumpers

Marking



Marking via Mini-WSB Quick Marking System