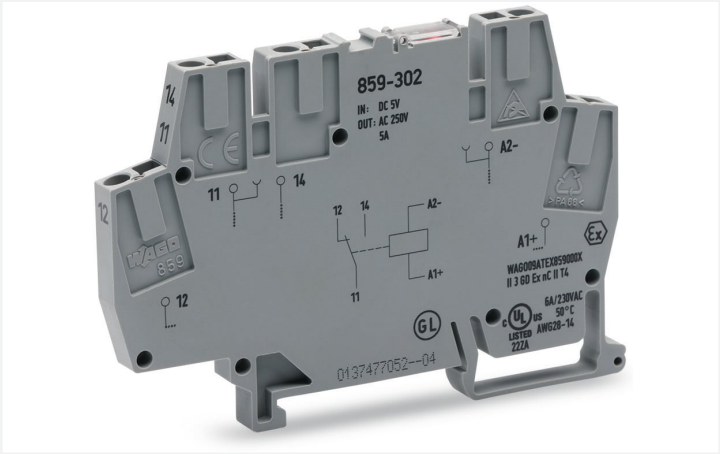
Data Sheet | Item Number: 859-305

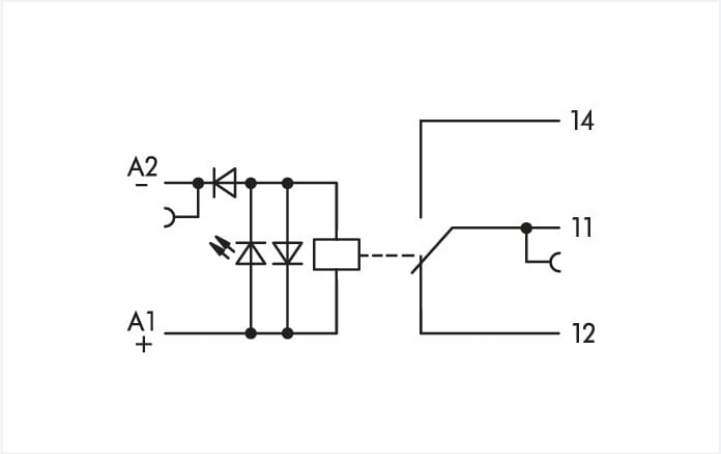
Relay module; Nominal input voltage: 48 VDC; 1 changeover contact; Red status indicator; Module width: 6 mm; 2,50 mm²; gray

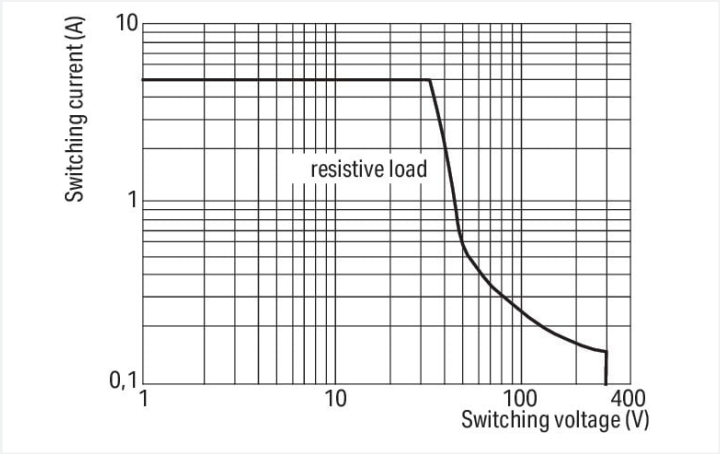
https://www.wago.com/859-305



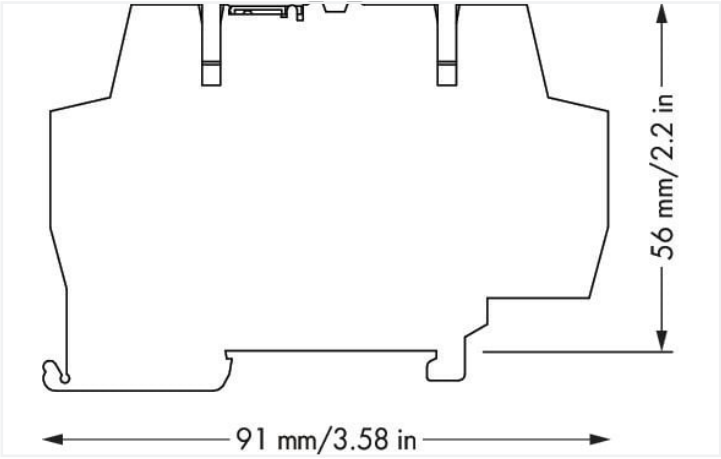
Color: gray

Similar to illustration





DC load limit curve



Dimensions in mm

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	DC 48 V
Input voltage range	-15 … +20 %
Nominal input current at U_N	7 mA

Load circuit

Number of changeover/switchover contacts	1
Contact material (relay)	$AgSnO_2$
Limiting continuous current	5 A
Inrush current (resistive) max.	(AC) 20 A / 0.02 s
Switching voltage (max.)	AC 250 V
Switching power (resistive) max.	AC 1250 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / AC 250 V; DC-13: 2 A / DC 24 V
Recommended minimum load	10 V / 10 mA; 24 V / 1 mA
Pull-in time (typ.)	15 ms
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

Load circuit

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 surge 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

Color	gray
Fire load	0.338 MJ
Weight	21.8 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	≥ ($T_{ambient}$ + 20 K)
Relative humidity	5 … 95 % (no condensation permissible)
Operating altitude (max.)	2000 m

Continued on next page

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 8.0	EC001437
ETIM 7.0	EC001437
PU (SPU)	10 pcs
Packaging type	Box
Country of origin	DE
GTIN	4055143602662
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)	dcae863c-2746-48d4-bf34-2e633e5aa306
SCIP notification number (Belgium)	ef357907-23bb-4e9d-97b5-fb3782be2290
SCIP notification number (Bulgaria)	26ccdc1f-1fc1-41d9-a810-2ce2975bce4f
SCIP notification number (Czech Republic)	61361205-cc15-436e-b1ca-097987360039
SCIP notification number (Denmark)	0669240f-8fc2-42d2-a2d9-dc502c89c14b
SCIP notification number (Finland)	948a224f-d77f-4bee-be36-3bcdd3dd5352
SCIP notification number (France)	73646a34-b80c-46a4-8a65-d429194c393d
SCIP notification number (Germany)	c9d932eb-4908-46d9-a6d9-b89e6681b469
SCIP notification number (Hungary)	54c78434-3af5-44f5-81e6-a7f1817a9605
SCIP notification number (Italy)	c67692a0-1309-4d80-8fd7-b4f108815b8a
SCIP notification number (Netherlands)	cf3afdba-71aa-4d4f-ab0a-4512e2b1cdca
SCIP notification number (Poland)	1b2b8b21-94d6-446b-bdcf-7d83ab0ec9a9
SCIP notification number (Romania)	ad4d8d42-89d4-4791-8923-8b69fc29a81a
SCIP notification number (Sweden)	d7b619fd-0d4c-4fee-b782-8b61f965fc82

Approvals / Certificates

General approvals

Approval	Standard	Certificate Name
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	-	-
UK-Declaration of Conformity WAGO GmbH & Co. KG	-	-

 Continued on next page

Approvals for marine applications

Approval	Standard	Certificate Name
DNV DNV Germany GmbH	DNV-CG-0339,Aug.2021	TAA00001D1
PRS Polski Rejestr Statków	-	TE/2186/880590/18

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 859-305

Documentation

Bid Text

859-305	19.02.2019	xml 4.47 KB
859-305	20.02.2019	docx 16.74 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

2D/3D Models 859-305

CAE data

EPLAN Data Portal 859-305

WSCAD Universe 859-305

ZUKEN Portal 859-305

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

 Continued on next page

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; signal 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

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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

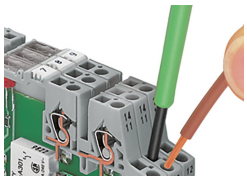


Item No.: 210-720
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured

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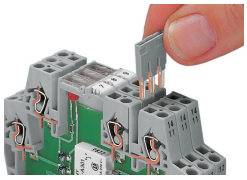
Installation Notes

Conductor termination



Conductor termination

Commoning



Easy commoning using adjacent jumpers

Marking



Marking via Mini-WSB Quick Marking System