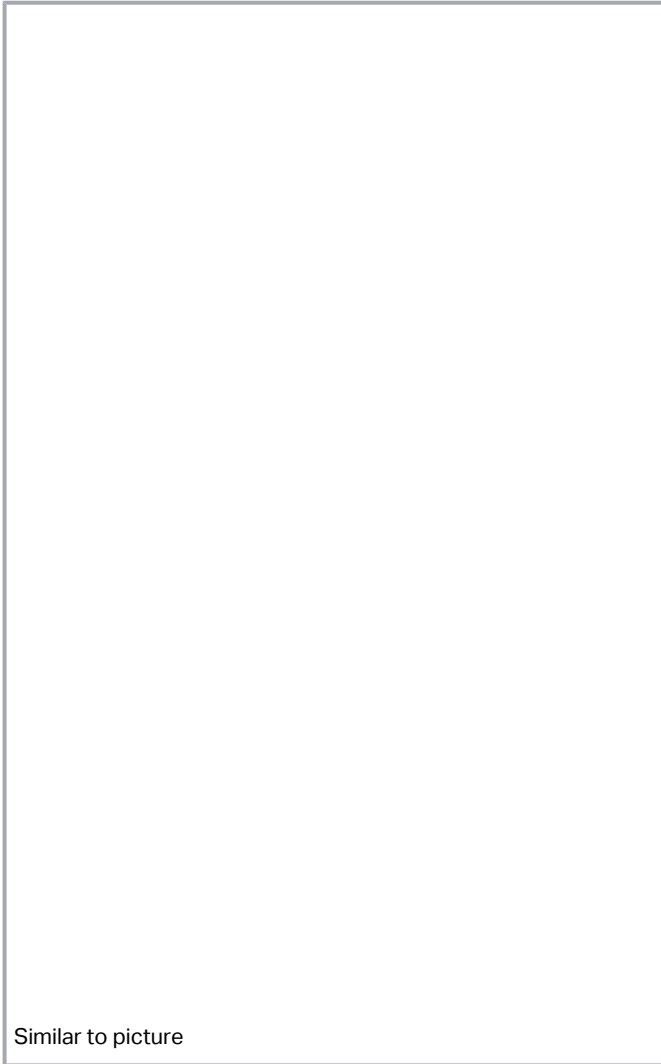


**Data sheet | Item number: 859-312**

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



[www.wago.com/859-312](http://www.wago.com/859-312)

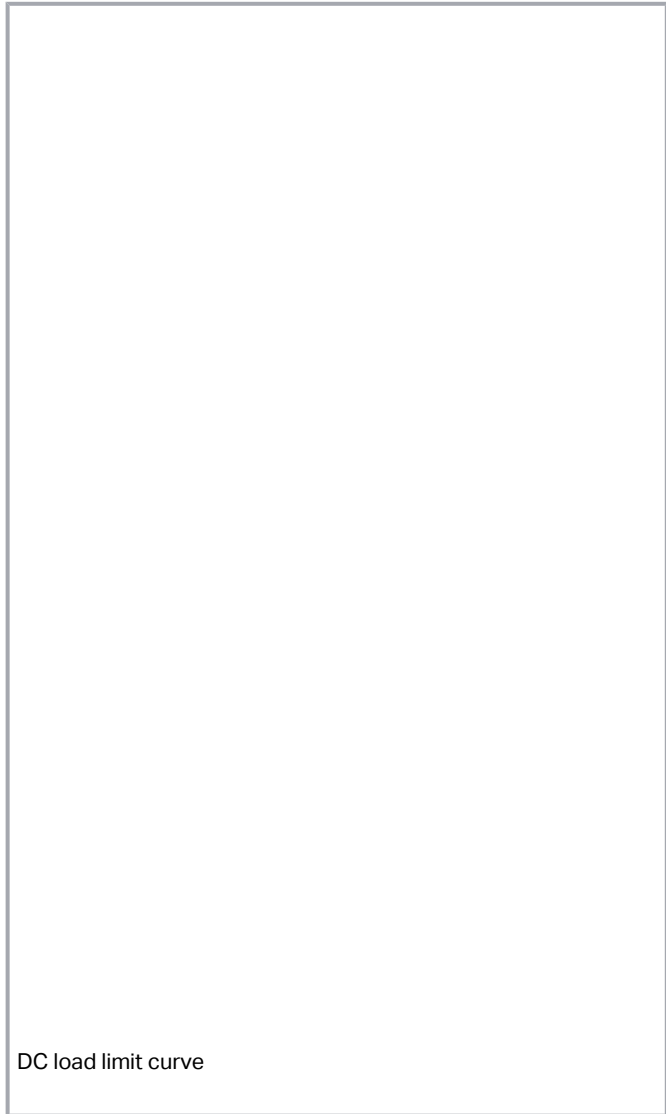


Similar to picture

Subject to changes. Please also observe the further product documentation!

WAGO GmbH & Co. KG  
Hansastr. 27  
32423 Minden  
Phone: +49571 887-0 | Fax: +49571 887-169  
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DC load limit curve

## Data

## 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.

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## Technical data

### Control Circuit

Nominal input voltage $U_N$	DC 5 V
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.)	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	1 V / 1 mA / 1 mW
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 <sup>3</sup> switching operations
Mechanical life	5 x 10 <sup>6</sup> switching operations
Switching frequency with/without load (max.)	6 min <sup>-1</sup> / 180 min <sup>-1</sup>

### Signaling

Status indicator	Red LED
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### 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

Subject to changes. Please also observe the further product documentation!



## Connection data

Connection technology	CAGE CLAMP®
Solid conductor	0.08 ... 2.5 mm <sup>2</sup> / 28 ... 14 AWG
Fine-stranded conductor	0.08 ... 2.5 mm <sup>2</sup> / 28 ... 14 AWG
Fine-stranded conductor; with insulated ferrule	0.08 ... 1.5 mm <sup>2</sup> / 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

Fire load	0.338 MJ
Weight	15.3 g

## Environmental requirements

Ambient temperature (operation at U <sub>N</sub> )	-40 ... +50 °C
Ambient temperature (storage)	-40 ... +70 °C
Processing temperature	-25 ... +50 °C
Temperature range of connection cable	≥ (T <sub>ambient</sub> + 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 DNV UL 508
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## 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)	1 pcs
Packaging type	box
Country of origin	DE
GTIN	4066966423815
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 (Bulgaria)	513da487-690e-4cc7-b58c-d234f3bedf3e
SCIP notification number (Czech Republic)	0a3b6135-c4df-465b-a87c-624a00570cf2

## Approvals / Certificates

### General approvals

Logo	Approval	Additional Approval Text	Certificate name
	<b>EAC</b> Brjansker Zertifizierungsstelle	TP TC 004/2011	EAC RU C-DE.AM02. B.00122 /19

### Declarations of conformity and manufacturer's declarations

Logo	Approval	Additional Approval Text	Certificate name
	<b>EU-Declaration of Conformity</b> WAGO GmbH & Co. KG	-	-
	<b>UK-Declaration of Conformity</b> WAGO GmbH & Co. KG	-	-

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## Optional accessories

### Testing and measuring

#### 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 0,5mm<sup>2</sup> [www.wago.com/859-500](http://www.wago.com/859-500)

### End plate

#### Intermediate plate

**Item no.: 859-525**

End and intermediate plate; 1 mm thick; gray [www.wago.com/859-525](http://www.wago.com/859-525)

### Tool

#### Operating tool

**Item no.: 210-720**

Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured [www.wago.com/210-720](http://www.wago.com/210-720)

### Jumpers

#### Jumper

**Item no.: 859-404/000-005**

Jumper; for jumper slot; 4-way; insulated; red [www.wago.com/859-404/000-005](http://www.wago.com/859-404/000-005)

**Item no.: 859-404/000-006**

Jumper; for jumper slot; 4-way; insulated; blue [www.wago.com/859-404/000-006](http://www.wago.com/859-404/000-006)

**Item no.: 859-405/000-005**

Jumper; for jumper slot; 5-way; insulated; red [www.wago.com/859-405/000-005](http://www.wago.com/859-405/000-005)

**Item no.: 859-405/000-029**

Jumper; for jumper slot; 5-way; insulated; yellow [www.wago.com/859-405/000-029](http://www.wago.com/859-405/000-029)

**Item no.: 859-405**

Jumper; for jumper slot; 5-way; insulated; light gray [www.wago.com/859-405](http://www.wago.com/859-405)

**Item no.: 859-404/000-029**

Jumper; for jumper slot; 4-way; insulated; yellow [www.wago.com/859-404/000-029](http://www.wago.com/859-404/000-029)

**Item no.: 859-405/000-006**

Jumper; for jumper slot; 5-way; insulated; blue [www.wago.com/859-405/000-006](http://www.wago.com/859-405/000-006)

**Item no.: 859-406/000-005**

Jumper; for jumper slot; 6-way; insulated; red [www.wago.com/859-406/000-005](http://www.wago.com/859-406/000-005)

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32423 Minden

Phone: +49571 887-0 | Fax: +49571 887-169

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**Item no.: 859-409/000-029**

Jumper; for jumper slot; 9-way; insulated; yellow

[www.wago.com/859-409/000-029](http://www.wago.com/859-409/000-029)

**Item no.: 859-410/000-005**

Jumper; for jumper slot; 10-way; insulated; red

[www.wago.com/859-410/000-005](http://www.wago.com/859-410/000-005)

**Item no.: 859-410/000-029**

Jumper; for jumper slot; 10-way; insulated; yellow

[www.wago.com/859-410/000-029](http://www.wago.com/859-410/000-029)

**Item no.: 859-410**

Jumper; for jumper slot; 10-way; insulated; light gray

[www.wago.com/859-410](http://www.wago.com/859-410)

**Item no.: 859-410/000-006**

Jumper; for jumper slot; 10-way; insulated; blue

[www.wago.com/859-410/000-006](http://www.wago.com/859-410/000-006)

**Item no.: 859-403/000-005**

Jumper; for jumper slot; 3-way; insulated; red

[www.wago.com/859-403/000-005](http://www.wago.com/859-403/000-005)

**Item no.: 859-402/000-029**

Jumper; for jumper slot; 2-way; insulated; yellow

[www.wago.com/859-402/000-029](http://www.wago.com/859-402/000-029)

**Item no.: 859-403/000-029**

Jumper; for jumper slot; 3-way; insulated; yellow

[www.wago.com/859-403/000-029](http://www.wago.com/859-403/000-029)

**Item no.: 859-403/000-006**

Jumper; for jumper slot; 3-way; insulated; blue

[www.wago.com/859-403/000-006](http://www.wago.com/859-403/000-006)

**Item no.: 859-408/000-005**

Jumper; for jumper slot; 8-way; insulated; red

[www.wago.com/859-408/000-005](http://www.wago.com/859-408/000-005)

**Item no.: 859-408/000-029**

Jumper; for jumper slot; 8-way; insulated; yellow

[www.wago.com/859-408/000-029](http://www.wago.com/859-408/000-029)

**Item no.: 859-409**

Jumper; for jumper slot; 9-way; insulated; light gray

[www.wago.com/859-409](http://www.wago.com/859-409)

**Item no.: 859-408/000-006**

Jumper; for jumper slot; 8-way; insulated; blue

[www.wago.com/859-408/000-006](http://www.wago.com/859-408/000-006)

**Item no.: 859-403**

Jumper; for jumper slot; 3-way; insulated; light gray

[www.wago.com/859-403](http://www.wago.com/859-403)

Subject to changes. Please also observe the further product documentation!

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Phone: +49571 887-0 | Fax: +49571 887-169

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**Item no.: 859-409/000-005**  
Jumper; for jumper slot; 9-way; insulated; red [www.wago.com/859-409/000-005](http://www.wago.com/859-409/000-005)

**Item no.: 859-404**  
Jumper; for jumper slot; 4-way; insulated; light gray [www.wago.com/859-404](http://www.wago.com/859-404)

**Item no.: 859-409/000-006**  
Jumper; for jumper slot; 9-way; insulated; blue [www.wago.com/859-409/000-006](http://www.wago.com/859-409/000-006)

**Item no.: 859-402/000-006**  
Jumper; for jumper slot; 2-way; insulated; blue [www.wago.com/859-402/000-006](http://www.wago.com/859-402/000-006)

**Item no.: 859-402**  
Jumper; for jumper slot; 2-way; insulated; light gray [www.wago.com/859-402](http://www.wago.com/859-402)

**Item no.: 859-402/000-005**  
Jumper; for jumper slot; 2-way; insulated; red [www.wago.com/859-402/000-005](http://www.wago.com/859-402/000-005)

**Item no.: 859-406/000-006**  
Jumper; for jumper slot; 6-way; insulated; blue [www.wago.com/859-406/000-006](http://www.wago.com/859-406/000-006)

**Item no.: 859-406/000-029**  
Jumper; for jumper slot; 6-way; insulated; signal yellow [www.wago.com/859-406/000-029](http://www.wago.com/859-406/000-029)

**Item no.: 859-407/000-006**  
Jumper; for jumper slot; 7-way; insulated; blue [www.wago.com/859-407/000-006](http://www.wago.com/859-407/000-006)

**Item no.: 859-407/000-005**  
Jumper; for jumper slot; 7-way; insulated; red [www.wago.com/859-407/000-005](http://www.wago.com/859-407/000-005)

**Item no.: 859-407/000-029**  
Jumper; for jumper slot; 7-way; insulated; yellow [www.wago.com/859-407/000-029](http://www.wago.com/859-407/000-029)

**Item no.: 859-407**  
Jumper; for jumper slot; 7-way; insulated; light gray [www.wago.com/859-407](http://www.wago.com/859-407)

**Ferrule**

Ferrule

**Item no.: 216-223**  
Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; insulated; electro-tin plated; red [www.wago.com/216-223](http://www.wago.com/216-223)

**Item no.: 216-222**  
Ferrule; Sleeve for 0.75 mm<sup>2</sup> / 18 AWG; insulated; electro-tin plated; gray [www.wago.com/216-222](http://www.wago.com/216-222)

**Item no.: 216-221**

Subject to changes. Please also observe the further product documentation!



Ferrule; Sleeve for 0.5 mm<sup>2</sup> / 20 AWG; insulated; electro-tin plated; white[www.wago.com/216-221](http://www.wago.com/216-221)**Item no.: 216-224**Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; insulated; electro-tin plated; black[www.wago.com/216-224](http://www.wago.com/216-224)**Item no.: 216-321**Ferrule; Sleeve for 0.25 mm<sup>2</sup> / AWG 24; insulated; electro-tin plated; yellow[www.wago.com/216-321](http://www.wago.com/216-321)**Item no.: 216-322**Ferrule; Sleeve for 0.34 mm<sup>2</sup> / 22 AWG; insulated; electro-tin plated; light turquoise[www.wago.com/216-322](http://www.wago.com/216-322)**Marking accessories**

## Marking device

**Item no.: 210-110**

Fiber-tip pen

[www.wago.com/210-110](http://www.wago.com/210-110)

## 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

[www.wago.com/2009-145](http://www.wago.com/2009-145)**Item no.: 248-501**

Mini-WSB marking card; as card; not stretchable; plain; snap-on type; white

[www.wago.com/248-501](http://www.wago.com/248-501)**Item no.: 248-504**

Mini-WSB marking card; as card; MARKED; 21 ... 30 (10x); not stretchable; Horizontal marking; snap-on type; white

[www.wago.com/248-504](http://www.wago.com/248-504)**Item no.: 248-503**

Mini-WSB marking card; as card; MARKED; 11 ... 20 (10x); not stretchable; Horizontal marking; snap-on type; white

[www.wago.com/248-503](http://www.wago.com/248-503)**Item no.: 248-506**

Mini-WSB marking card; as card; MARKED; 41 ... 50 (10x); not stretchable; Horizontal marking; snap-on type; white

[www.wago.com/248-506](http://www.wago.com/248-506)**Item no.: 248-502**

Mini-WSB marking card; as card; MARKED; 1 ... 10 (10x); not stretchable; Horizontal marking; snap-on type; white

[www.wago.com/248-502](http://www.wago.com/248-502)**Downloads****Documentation****Bid Text**

859-312	2019 年2月20 日	docx	Download
docx - Datei		17.6 kB	

859-312	2019 年2月19 日	xml	Download
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**Instruction Leaflet**

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32423 Minden

Phone: +49571 887-0 | Fax: +49571 887-169

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Relay modules, Optocoupler modules	V 2.0.0 2022 年1月19 日	pdf 2.1 MB	Download
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#### Additional Information

Disposal and Recycling Electrical and electronic equipment, Batteries, Packaging	V 1.1.0 2022 年8月18 日	pdf 2.2 MB	Download
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#### CAD/CAE-Data

##### CAD data

2D/3D Models 859-312	URL	Download
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##### CAE data

EPLAN Data Portal 859-312	URL	Download
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ZUKEN Portal 859-312	URL	Download
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WSCAD Universe 859-312	URL	Download
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#### Environmental Product Compliance

##### Compliance Search

Environmental Product Compliance 859-312	URL	Download
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Relay module; Nominal input voltage: 5 VDC; 1 changeover contact; with gold contacts; Red status indicator; Module width: 6 mm

#### Installation Notes

##### Conductor termination

Subject to changes. Please also observe the further product documentation!



Conductor termination

### Commoning



Easy commoning using adjacent jumpers

### Marking



Marking via Mini-WSB Quick Marking System

Subject to changes. Please also observe the further product documentation!