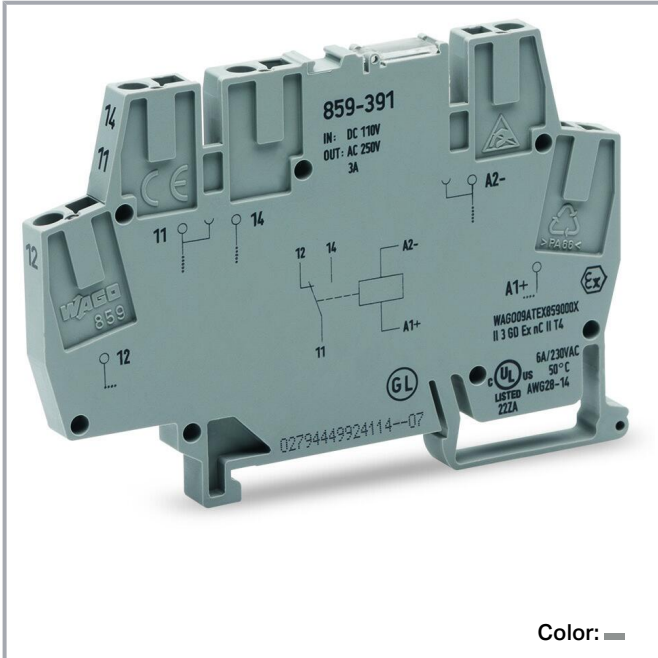


Data sheet | Item number: 859-391

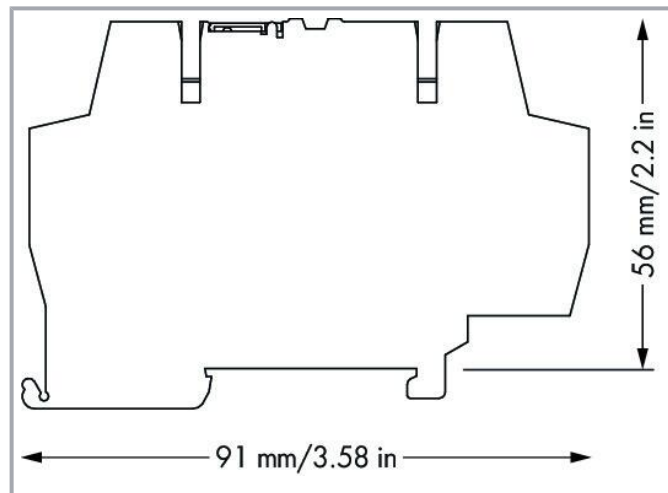
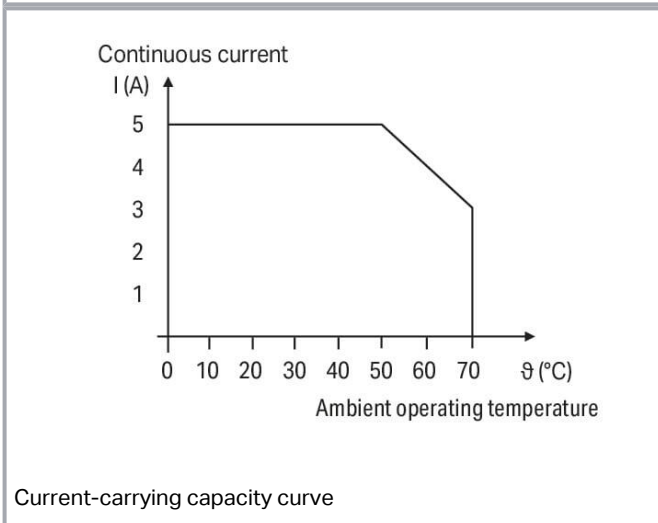
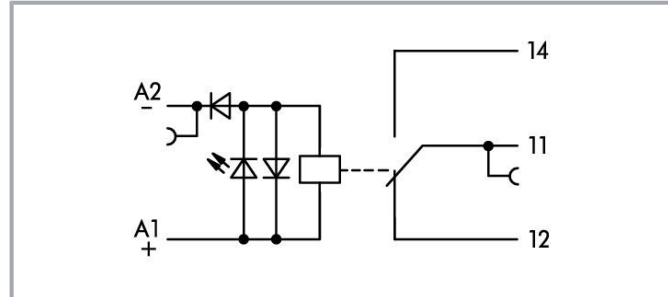
Relay module; Nominal input voltage: 110 VDC; 1 changeover contact;  
Railway; Red status indicator; Module width: 6 mm; 2,50 mm<sup>2</sup>; gray



[www.wago.com/859-391](http://www.wago.com/859-391)



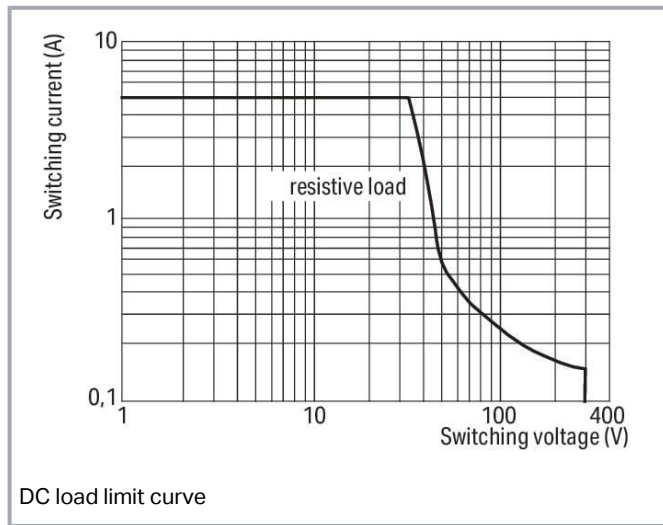
Color: —



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

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Do you have any questions about our products?  
We are always happy to take your call at +49 (571) 887-44222.



## Data

### 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 110 V
Input voltage range	$\pm 30\%$
Nominal input current at $U_N$	3 mA

### Load circuit

Number of changeover/switchover contacts	1
Contact material (relay)	AgSnO <sub>2</sub>
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	10 V / 10 mA; 24 V / 1 mA
Pull-in time (typ.)	15 ms
Drop-out time (typ.)	25 ms

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



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
------------------	---------

## 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 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

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



## Material data

Color	gray
Fire load	0.457 MJ
Weight	22.3 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	$\geq (T_{\text{ambient}} + 20 \text{ K})$
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 UL 508 DNV
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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
Recupel Type	
ECCN	NO DATA
PU (SPU)	10 pcs
Packaging type	box
Country of origin	CN
GTIN	4055143604253
Customs tariff number	85364900990

## Environmental Product Compliance

CAS-No.	7439-92-1
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Subject to changes. Please also observe the further product documentation!

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)	6d12ed06-fbf3-46a1-a654-630e8d49ec3a
SCIP notification number (Belgium)	204a505a-779b-47fd-bb86-ece19e28e6f6
SCIP notification number (Bulgaria)	52694fa5-7fde-4b35-8106-adf982eee3cc
SCIP notification number (Czech Republic)	25a17a55-10db-48ed-bd57-1f856ac46747
SCIP notification number (Denmark)	50126113-d1c1-4fed-8ff4-c751f9813eff
SCIP notification number (Finland)	e6292971-97d1-4062-99e2-1f8d520ffe86
SCIP notification number (France)	dc7b4162-3d72-47f2-a6ca-a778864afaac
SCIP notification number (Germany)	bdf824c4-0b3f-474f-b497-66278509560c
SCIP notification number (Hungary)	58a34e58-8285-4ce7-aca7-c5dd0d887a32
SCIP notification number (Italy)	f6ec7b34-e646-4dac-82b3-bc9d30a8a37e
SCIP notification number (Netherlands)	a5a1c421-7f99-42f1-971a-c6ab6f7bbcaa
SCIP notification number (Poland)	5dcd3f8d-80ba-40ba-ae3d-753b370f3f76
SCIP notification number (Romania)	c2238359-5fcc-49dd-b253-48ff3cbaac69
SCIP notification number (Sweden)	6b37fa18-396b-4c17-a57e-87c804f6fa3c

## Approvals / Certificates

### General approvals

Logo	Approval	Additional Approval Text	Certificate name
	UL Underwriters Laboratories Inc. (ORDINARY LOCATIONS)	UL 508	E175199 Sec.4

### Declarations of conformity and manufacturer's declarations



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

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



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## Approvals for marine applications

Logo	Approval	Additional Approval Text	Certificate name
	<b>DNV</b> DNV Germany GmbH	DNV-CG-0339, Aug. 2021	TAA00001D1
	<b>PRS</b> Polski Rejestr Statków	-	TE/2186 /880590/18

## Approvals for hazardous areas

Logo	Approval	Additional Approval Text	Certificate name
	<b>CCC</b> CNEX	CNCA-C23-01	2021312304000982 (Ex ec nC IIC T4 Gc)
	<b>UKEx</b> WAGO GmbH & Co. KG	EN 60079-0	UKCA_WAGO22UKEX007X_ec nC

## Optional accessories

## Jumpers

Jumper		
	<b>Item no.: 859-408</b> Jumper; for jumper slot; 8-way; insulated; light gray	<a href="http://www.wago.com/859-408">www.wago.com/859-408</a>
	<b>Item no.: 859-404/000-005</b> Jumper; for jumper slot; 4-way; insulated; red	<a href="http://www.wago.com/859-404/000-005">www.wago.com/859-404/000-005</a>
	<b>Item no.: 859-404/000-006</b> Jumper; for jumper slot; 4-way; insulated; blue	<a href="http://www.wago.com/859-404/000-006">www.wago.com/859-404/000-006</a>
	<b>Item no.: 859-405/000-005</b> Jumper; for jumper slot; 5-way; insulated; red	<a href="http://www.wago.com/859-405/000-005">www.wago.com/859-405/000-005</a>

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



**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)



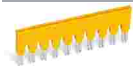
**Item no.: 859-409/000-029**  
Jumper; for jumper slot; 9-way; insulated; yellow

[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)

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

	<b>Item no.: 859-403/000-006</b> Jumper; for jumper slot; 3-way; insulated; blue	<a href="http://www.wago.com/859-403/000-006">www.wago.com/859-403/000-006</a>
	<b>Item no.: 859-408/000-005</b> Jumper; for jumper slot; 8-way; insulated; red	<a href="http://www.wago.com/859-408/000-005">www.wago.com/859-408/000-005</a>
	<b>Item no.: 859-408/000-029</b> Jumper; for jumper slot; 8-way; insulated; yellow	<a href="http://www.wago.com/859-408/000-029">www.wago.com/859-408/000-029</a>
	<b>Item no.: 859-409</b> Jumper; for jumper slot; 9-way; insulated; light gray	<a href="http://www.wago.com/859-409">www.wago.com/859-409</a>
	<b>Item no.: 859-408/000-006</b> Jumper; for jumper slot; 8-way; insulated; blue	<a href="http://www.wago.com/859-408/000-006">www.wago.com/859-408/000-006</a>
	<b>Item no.: 859-403</b> Jumper; for jumper slot; 3-way; insulated; light gray	<a href="http://www.wago.com/859-403">www.wago.com/859-403</a>
	<b>Item no.: 859-409/000-005</b> Jumper; for jumper slot; 9-way; insulated; red	<a href="http://www.wago.com/859-409/000-005">www.wago.com/859-409/000-005</a>
	<b>Item no.: 859-404</b> Jumper; for jumper slot; 4-way; insulated; light gray	<a href="http://www.wago.com/859-404">www.wago.com/859-404</a>
	<b>Item no.: 859-409/000-006</b> Jumper; for jumper slot; 9-way; insulated; blue	<a href="http://www.wago.com/859-409/000-006">www.wago.com/859-409/000-006</a>
	<b>Item no.: 859-402/000-006</b> Jumper; for jumper slot; 2-way; insulated; blue	<a href="http://www.wago.com/859-402/000-006">www.wago.com/859-402/000-006</a>
	<b>Item no.: 859-402</b> Jumper; for jumper slot; 2-way; insulated; light gray	<a href="http://www.wago.com/859-402">www.wago.com/859-402</a>
	<b>Item no.: 859-402/000-005</b> Jumper; for jumper slot; 2-way; insulated; red	<a href="http://www.wago.com/859-402/000-005">www.wago.com/859-402/000-005</a>
	<b>Item no.: 859-406/000-006</b> Jumper; for jumper slot; 6-way; insulated; blue	<a href="http://www.wago.com/859-406/000-006">www.wago.com/859-406/000-006</a>
	<b>Item no.: 859-406/000-029</b> Jumper; for jumper slot; 6-way; insulated; signal yellow	<a href="http://www.wago.com/859-406/000-029">www.wago.com/859-406/000-029</a>

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





**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)

### 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)

### 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**  
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)

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



**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)

## 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)

## 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)

## Downloads

### Documentation

#### Bid Text

859-391 docx - Datei	2019 Feb 20	docx 17.3 kB	Download
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859-391 X81 - Datei	2019 Feb 19	xml 4.6 kB	Download
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#### Instruction Leaflet

CCC Ex (Additional information) 859-***	2023 Apr 26	pdf 135.9 kB	Download
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Relay modules, Optocoupler modules	V 2.0.0 2022 Jan 19	pdf 2.1 MB	Download
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Subject to changes. Please also observe the further product documentation!



### Additional Information

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

#### CAE data

EPLAN Data Portal 859-391	URL	Download
WSCAD Universe 859-391	URL	Download
ZUKEN Portal 859-391	URL	Download

#### CAD data

2D/3D Models 859-391	URL	Download
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#### Asset Administration Shell

Asset Administration Shell 859-391	URL	Download
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### Environmental Product Compliance

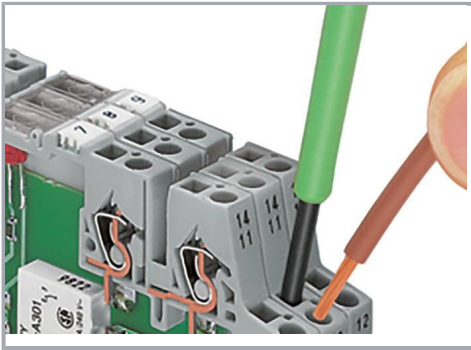
#### Compliance Search

Environmental Product Compliance 859-391 Relay module; Nominal input voltage: 110 VDC; 1 changeover contact; Railway; Red status indicator; Module width: 6 mm; 2,50 mm <sup>2</sup> ; gray	URL	Download
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### Installation Notes

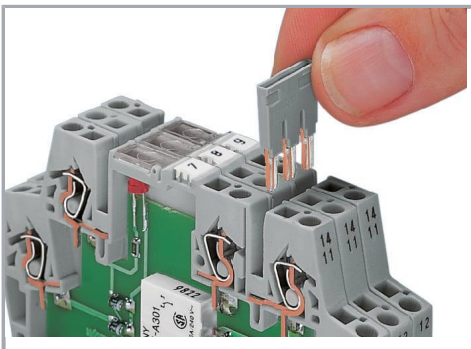
#### Conductor termination

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!