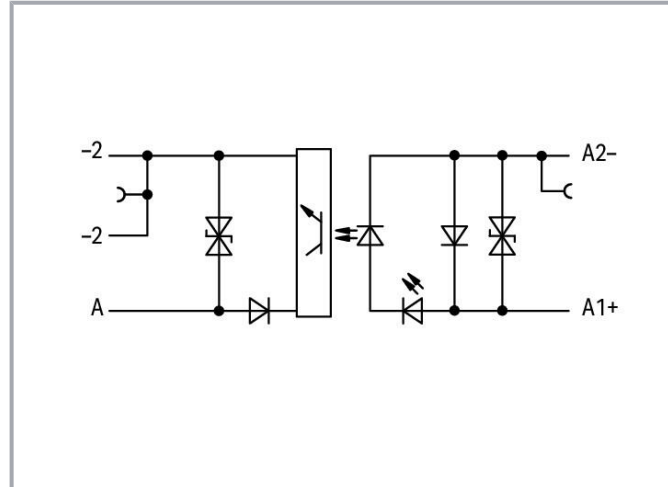
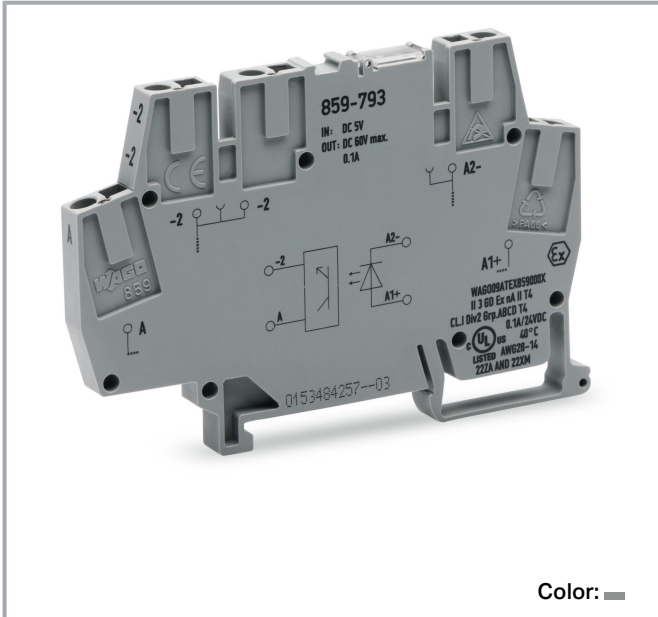


## Data sheet | Item number: 859-793

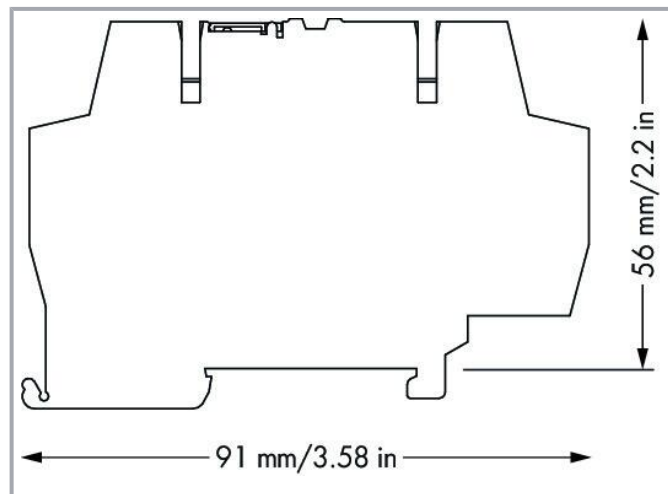
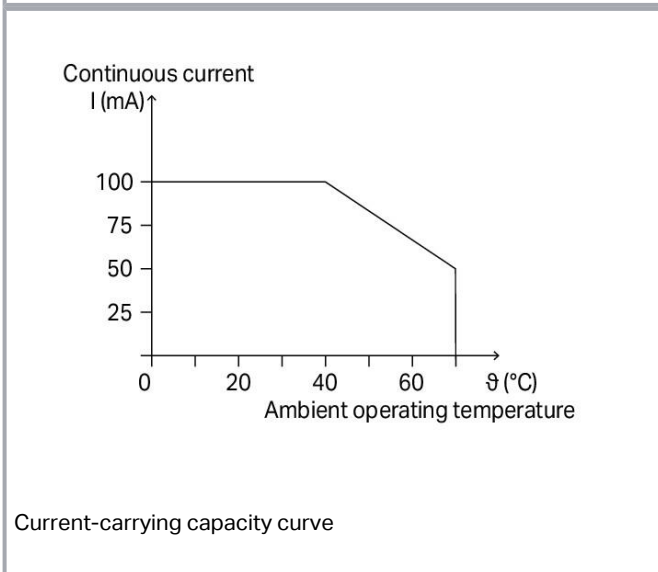
Optocoupler module; Nominal input voltage: 5 VDC; Output voltage range: 3 ... 60 VDC; Limiting continuous current: 0.1 A; 2-wire connection; Railway; Module width: 6 mm; gray



[www.wago.com/859-793](http://www.wago.com/859-793)



Color: —



## Data Notes

Note

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

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Optocouplers and solid state relays are designed for use in signal processing networks, which are not supplied by the low-voltage power supply networks.

## Technical data

### Control Circuit

Nominal input voltage $U_N$	DC 5 V
Input voltage range (low level)	DC 0 ... 0.8 V
Input voltage range (high level)	DC 2 ... 6.25 V
Nominal input current at $U_N$	8 mA

### Load circuit

Circuit type	2-wire connection
Limiting continuous current	0.1 A
Output voltage range	DC 3 ... 60 V
Voltage drop at output (max.)	≤ DC 2.5 V
Leakage current at rated voltage	≤ 25 $\mu$ A
Turn-on time	≤ 20 $\mu$ s
Turn-off time	≤ 120 $\mu$ s
Switching frequency	≤ 1.5 kHz

### Signaling

Status indicator	Red LED
------------------	---------

### Safety and protection

Rated voltage	300 V
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	2.5 kVrms
Insulation type (control/load circuit)	Basic insulation
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)
Insulation type (between adjacent devices of the same type)	Reinforced insulation (safe isolation)
Insulation type (to adjacent devices of different types)	Basic insulation

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



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

### Material Data

Color	gray
Fire load	0.338 MJ
Weight	17.7 g

### Environmental requirements

Ambient temperature (operation at U <sub>N</sub> )	-40 ... +70 °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 61000-6-2 EN 61000-6-3
--------------------------	--

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

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EN 50121-3-2  
EN 61373  
UL 508

## Commercial data

Product Group	6 (INTERFACE ELECTRONIC)
eCl@ss 10.0	27-26-15-03
eCl@ss 9.0	27-26-15-03
ETIM 8.0	EC001504
ETIM 7.0	EC001504
PU (SPU)	10 pcs
Packaging type	Box
Country of origin	DE
GTIN	4055143606271
Customs tariff number	85365005000

## 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) 7(c)-I 7(c)-II
SCIP notification number (Austria)	a3672d1d-0ba4-47b1-9b7b-6688726460d9
SCIP notification number (Belgium)	31c2280f-de9a-4e8f-b865-e81212a5a6c7
SCIP notification number (Bulgaria)	6ea30b1f-1833-4132-b15e-de9b32447dac
SCIP notification number (Czech Republic)	1e9e47f4-7452-47fb-94ce-91f99eb47bdb
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SCIP notification number (Hungary)	8a914126-0965-4f1e-a1b7-abaec3480990
SCIP notification number (Italy)	592733e7-4ad2-42ed-97ff-1b2d8089454a
SCIP notification number (Netherlands)	afecfafd-cf65-4950-a533-561efdee23b9
SCIP notification number (Poland)	b36df44c-243d-4e9a-8e15-bd2fa9a08444
SCIP notification number (Romania)	bfc7249-8950-4b5a-b2dc-229e629760e6

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SCIP notification number (Sweden)


d3705cd1-875f-4d4b-962c-f574bd23bcf1

## Approvals / Certificates




### General approvals

Logo	Approval	Additional Approval Text	Certificate name
	CCC CNEX	CNCA-C23-01	2021312304000982 (Ex ec IIC T4 Gc)
	EAC Brjansker Zertifizierungsstelle	TP TC 020/2011	EAC_Certificate_RU_C- DE.AM02.B.00115_19

### Declarations of conformity and manufacturer's declarations

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

### Approvals for hazardous areas

Logo	Approval	Additional Approval Text	Certificate name
	CCC CNEX	CNCA-C23-01	2021312304000982 (Ex ec IIC T4 Gc)
	UKEx WAGO GmbH & Co. KG	EN 60079-0	WAGO22UKEX007X_ec
	UL Underwriters Laboratories Inc. (HAZARDOUS LOCATIONS)	ANSI/ISA 12.12.01	E198726

## Optional accessories

### End plate

Intermediate plate

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

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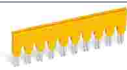













**Item no.: 859-525**  
End and intermediate plate; 1 mm thick; gray

[www.wago.com/859-525](http://www.wago.com/859-525)

**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>
	<b>Item no.: 859-405/000-029</b> Jumper; for jumper slot; 5-way; insulated; yellow	<a href="http://www.wago.com/859-405/000-029">www.wago.com/859-405/000-029</a>
	<b>Item no.: 859-405</b> Jumper; for jumper slot; 5-way; insulated; light gray	<a href="http://www.wago.com/859-405">www.wago.com/859-405</a>
	<b>Item no.: 859-404/000-029</b> Jumper; for jumper slot; 4-way; insulated; yellow	<a href="http://www.wago.com/859-404/000-029">www.wago.com/859-404/000-029</a>
	<b>Item no.: 859-406</b> Jumper; for jumper slot; 6-way; insulated; light gray	<a href="http://www.wago.com/859-406">www.wago.com/859-406</a>
	<b>Item no.: 859-405/000-006</b> Jumper; for jumper slot; 5-way; insulated; blue	<a href="http://www.wago.com/859-405/000-006">www.wago.com/859-405/000-006</a>
	<b>Item no.: 859-406/000-005</b> Jumper; for jumper slot; 6-way; insulated; red	<a href="http://www.wago.com/859-406/000-005">www.wago.com/859-406/000-005</a>
	<b>Item no.: 859-409/000-029</b> Jumper; for jumper slot; 9-way; insulated; yellow	<a href="http://www.wago.com/859-409/000-029">www.wago.com/859-409/000-029</a>
	<b>Item no.: 859-410/000-005</b> Jumper; for jumper slot; 10-way; insulated; red	<a href="http://www.wago.com/859-410/000-005">www.wago.com/859-410/000-005</a>

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

	<b>Item no.: 859-410/000-029</b> Jumper; for jumper slot; 10-way; insulated; yellow	<a href="http://www.wago.com/859-410/000-029">www.wago.com/859-410/000-029</a>
	<b>Item no.: 859-410</b> Jumper; for jumper slot; 10-way; insulated; light gray	<a href="http://www.wago.com/859-410">www.wago.com/859-410</a>
	<b>Item no.: 859-410/000-006</b> Jumper; for jumper slot; 10-way; insulated; blue	<a href="http://www.wago.com/859-410/000-006">www.wago.com/859-410/000-006</a>
	<b>Item no.: 859-403/000-005</b> Jumper; for jumper slot; 3-way; insulated; red	<a href="http://www.wago.com/859-403/000-005">www.wago.com/859-403/000-005</a>
	<b>Item no.: 859-402/000-029</b> Jumper; for jumper slot; 2-way; insulated; yellow	<a href="http://www.wago.com/859-402/000-029">www.wago.com/859-402/000-029</a>
	<b>Item no.: 859-403/000-029</b> Jumper; for jumper slot; 3-way; insulated; yellow	<a href="http://www.wago.com/859-403/000-029">www.wago.com/859-403/000-029</a>
	<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>

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

	<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>
	<b>Item no.: 859-407/000-006</b> Jumper; for jumper slot; 7-way; insulated; blue	<a href="http://www.wago.com/859-407/000-006">www.wago.com/859-407/000-006</a>
	<b>Item no.: 859-407/000-005</b> Jumper; for jumper slot; 7-way; insulated; red	<a href="http://www.wago.com/859-407/000-005">www.wago.com/859-407/000-005</a>
	<b>Item no.: 859-407/000-029</b> Jumper; for jumper slot; 7-way; insulated; yellow	<a href="http://www.wago.com/859-407/000-029">www.wago.com/859-407/000-029</a>
	<b>Item no.: 859-407</b> Jumper; for jumper slot; 7-way; insulated; light gray	<a href="http://www.wago.com/859-407">www.wago.com/859-407</a>
<b>Marking accessories</b>		
Marking devices		
	<b>Item no.: 210-110</b> Fiber-tip pen	<a href="http://www.wago.com/210-110">www.wago.com/210-110</a>
Marker		
	<b>Item no.: 2009-145</b> Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white	<a href="http://www.wago.com/2009-145">www.wago.com/2009-145</a>
	<b>Item no.: 248-501</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type; white	<a href="http://www.wago.com/248-501">www.wago.com/248-501</a>
	<b>Item no.: 248-504</b>	

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





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)

## 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)

## 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

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



859-793 docx - Datei	2019 Feb 20	docx 15.6 kB	Download
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859-793 X81 - Datei	2019 Feb 19	xml 4.0 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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### 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

#### CAD data

2D/3D Models 859-793		URL	Download
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#### CAE data

EPLAN Data Portal 859-793		URL	Download
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WSCAD Universe 859-793		URL	Download
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ZUKEN Portal 859-793		URL	Download
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### Environmental Product Compliance

#### Compliance Search

Environmental Product Compliance 859-793		URL	Download
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Optocoupler module; Nominal input voltage: 5 VDC; Output voltage range: 3 ... 60 VDC; Limiting continuous current: 0.1 A; 2-wire connection; Railway; Module width: 6 mm; gray

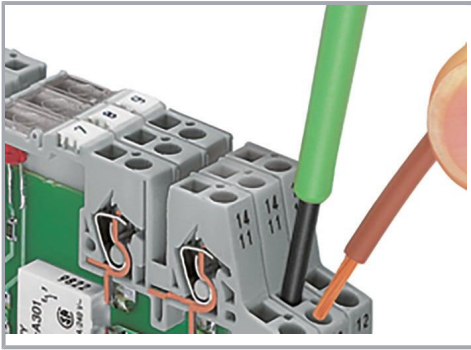
Subject to changes. Please also observe the further product documentation!

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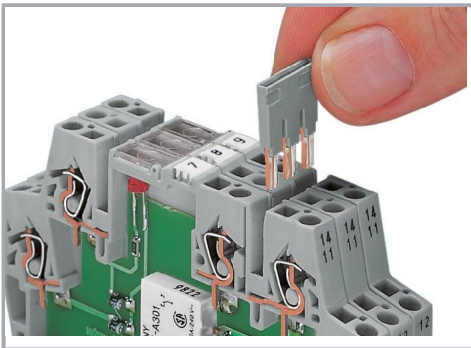
## Installation Notes

### Conductor termination



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!