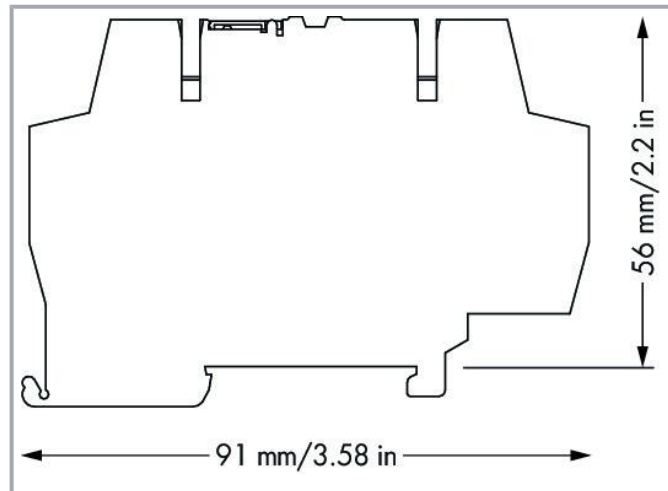
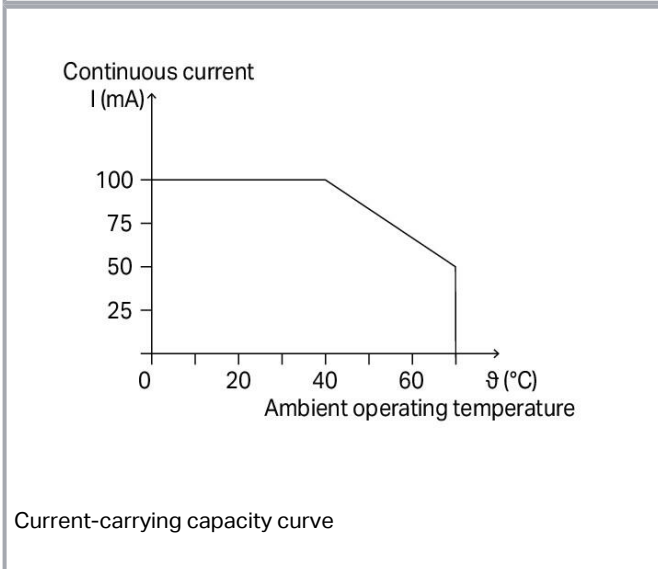
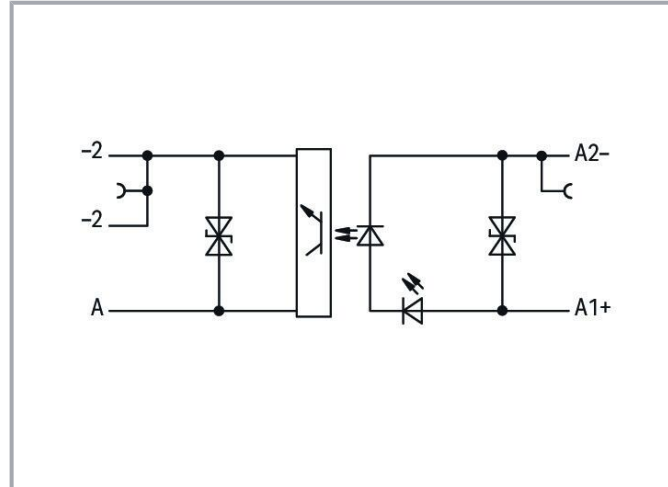
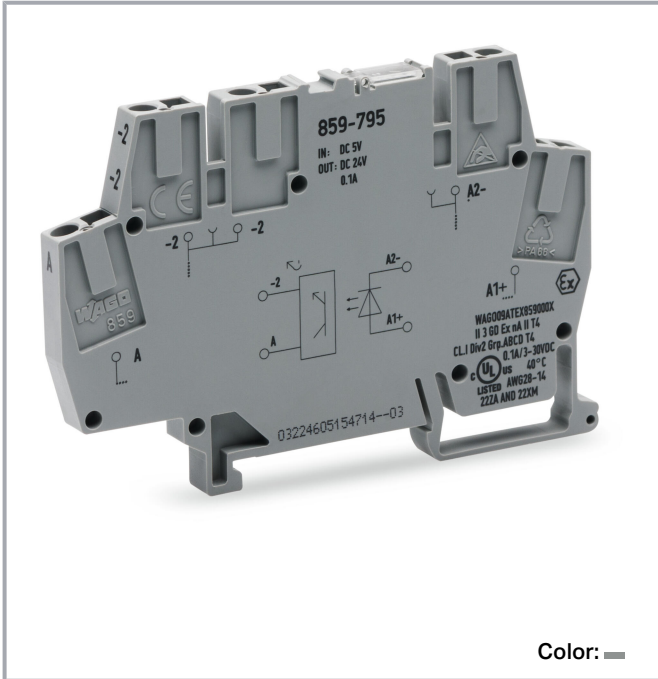


**Data sheet | Item number: 859-795**

Optocoupler module; Nominal input voltage: 5 VDC; Output voltage range: 3 ... 30 VDC; Limiting continuous current: 0.1 A; 2-wire connection; Railway; Frequency: 10 kHz; Module width: 6 mm; gray



[www.wago.com/859-795](http://www.wago.com/859-795)



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

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**Data****Notes**

## Note

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 $U_N$	17 mA

**Load circuit**

Circuit type	2-wire connection
Limiting continuous current	0.1 A
Nominal output voltage	DC 24 V
Output voltage range	DC 3 ... 30 V
Voltage drop at output (max.)	$\leq$ DC 1 V
Voltage drop	$\leq$ 1 VDC
Leakage current at rated voltage	$\leq$ 25 $\mu$ A
Turn-on time	$\leq$ 10 $\mu$ s
Turn-off time	$\leq$ 50 $\mu$ s
Switching frequency	$\leq$ 10 kHz

**Signaling**

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

**Safety and protection**

Rated voltage	300 V
Overvoltage category	II

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



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
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	18.1 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)

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



Operating altitude (max.)	2000 m
---------------------------	--------

## Standards and specifications

Standards/specifications	EN 61010-2-201 EN 61000-6-3 EN 61000-6-4 EN 50121-3-2 EN 61373 UL 508
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## 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
Recupel Type	
PU (SPU)	10 pcs
Packaging type	Box
Country of origin	DE
GTIN	4055143606462
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)	904d968e-97bd-40c6-9217-6816dc0a06fc
SCIP notification number (Belgium)	f224f726-d3de-43d1-8751-0262fe1f1da8
SCIP notification number (Bulgaria)	245eebd3-2d2c-44b9-8497-b649c2f257b0
SCIP notification number (Czech Republic)	7229742d-30af-45f8-8ff2-81e36f7ef016
SCIP notification number (Denmark)	1e849c3d-9e3a-4aa8-98de-86a109fef4c9
SCIP notification number (Finland)	c39a539e-762b-4582-b6df-daa32cc18d6e
SCIP notification number (France)	9a650c43-036a-48f1-92a9-80a3b36459c2

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SCIP notification number (Germany)	b4d46a2a-331b-46fb-aa14-4846babf272b
SCIP notification number (Hungary)	5427c49a-d945-4040-8246-379666f8d6fa
SCIP notification number (Italy)	ac868591-758e-4caf-b717-d329a5537e42
SCIP notification number (Netherlands)	6c0d1e19-a6b9-4c72-9b57-b9b13dc72966
SCIP notification number (Poland)	5a2fc672-97ab-4edb-ae1f-896a18aae16a
SCIP notification number (Romania)	322ef2c9-0eea-4142-8157-274cb493ed95
SCIP notification number (Sweden)	8988cf29-708d-4e6e-ba22-c0d21927bc4c

## Approvals / Certificates




### General approvals

Logo	Approval	Additional Approval Text	Certificate name
	EAC Brjansker Zertifizierungsstelle	TP TC 020/2011	EAC_Certificate_RU_C-DE.AM02.B.00115_19
	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	-	-

### 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











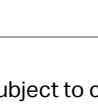
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## Optional accessories

### Jumpers

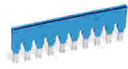
Jumper		
	<b>Item no.: 859-404/000-005</b> Jumper; for jumper slot; 4-way; insulated; red	<a href="http://www.wago.com/859-404/000-005">www.wago.com/859-404/000-005</a>
	<b>Item no.: 859-404/000-006</b> Jumper; for jumper slot; 4-way; insulated; blue	<a href="http://www.wago.com/859-404/000-006">www.wago.com/859-404/000-006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

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



**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)



**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)

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

	<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>





**Testing and measuring**

Testing accessories

	<b>Item no.: 859-500</b> 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>	<a href="http://www.wago.com/859-500">www.wago.com/859-500</a>
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**Ferrule**

Ferrule

	<b>Item no.: 216-223</b> Ferrule; Sleeve for 1 mm <sup>2</sup> / AWG 18; insulated; electro-tin plated; red	<a href="http://www.wago.com/216-223">www.wago.com/216-223</a>
	<b>Item no.: 216-222</b> Ferrule; Sleeve for 0.75 mm <sup>2</sup> / 18 AWG; insulated; electro-tin plated; gray	<a href="http://www.wago.com/216-222">www.wago.com/216-222</a>
	<b>Item no.: 216-221</b> Ferrule; Sleeve for 0.5 mm <sup>2</sup> / 20 AWG; insulated; electro-tin plated; white	<a href="http://www.wago.com/216-221">www.wago.com/216-221</a>
	<b>Item no.: 216-224</b> Ferrule; Sleeve for 1.5 mm <sup>2</sup> / AWG 16; insulated; electro-tin plated; black	<a href="http://www.wago.com/216-224">www.wago.com/216-224</a>

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



	<b>Item no.: 216-321</b> Ferrule; Sleeve for 0.25 mm <sup>2</sup> / AWG 24; insulated; electro-tin plated; yellow	<a href="http://www.wago.com/216-321">www.wago.com/216-321</a>
	<b>Item no.: 216-322</b> Ferrule; Sleeve for 0.34 mm <sup>2</sup> / 22 AWG; insulated; electro-tin plated; light turquoise	<a href="http://www.wago.com/216-322">www.wago.com/216-322</a>
<b>End plate</b>		
Intermediate plate		
	<b>Item no.: 859-525</b> End and intermediate plate; 1 mm thick; gray	<a href="http://www.wago.com/859-525">www.wago.com/859-525</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>
<b>Marker</b>		
	<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> Mini-WSB marking card; as card; MARKED; 21 ... 30 (10x); not stretchable; Horizontal marking; snap-on type; white	<a href="http://www.wago.com/248-504">www.wago.com/248-504</a>
	<b>Item no.: 248-503</b> Mini-WSB marking card; as card; MARKED; 11 ... 20 (10x); not stretchable; Horizontal marking; snap-on type; white	<a href="http://www.wago.com/248-503">www.wago.com/248-503</a>
	<b>Item no.: 248-506</b> Mini-WSB marking card; as card; MARKED; 41 ... 50 (10x); not stretchable; Horizontal marking; snap-on type; white	<a href="http://www.wago.com/248-506">www.wago.com/248-506</a>
	<b>Item no.: 248-502</b> Mini-WSB marking card; as card; MARKED; 1 ... 10 (10x); not stretchable; Horizontal marking; snap-on type; white	<a href="http://www.wago.com/248-502">www.wago.com/248-502</a>
<b>Tool</b>		
Operating tool		
	<b>Item no.: 210-720</b> Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured	<a href="http://www.wago.com/210-720">www.wago.com/210-720</a>

## Downloads

### Documentation

#### Bid Text

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



859-795 docx - Datei	Feb 20, 2019	docx 15.8 kB	Download
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859-795 X81 - Datei	Feb 19, 2019	xml 3.9 kB	Download
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**Instruction Leaflet**

CCC Ex (Additional information) 859-***			Download
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Relay modules, Optocoupler modules	V 2.0.0 Jan 19, 2022	pdf 2.1 MB	Download
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**Additional Information**

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

**CAD data**

2D/3D Models 859-795		URL	Download
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**CAE data**

EPLAN Data Portal 859-795		URL	Download
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WSCAD Universe 859-795		URL	Download
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ZUKEN Portal 859-795		URL	Download
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**Environmental Product Compliance**

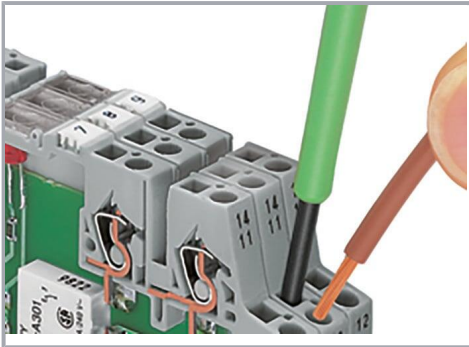
**Compliance Search**

Environmental Product Compliance 859-795 Optocoupler module; Nominal input voltage: 5 VDC; Output voltage range: 3 ... 30 VDC; Limiting continuous current: 0.1 A; 2-wire connection; Railway; Frequency: 10 kHz; Module width: 6 mm; gray		URL	Download
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Subject to changes. Please also observe the further product documentation!

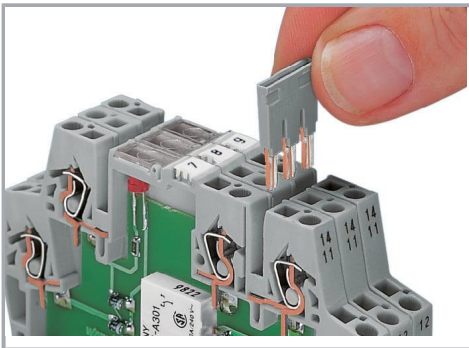
## Installation Notes

### 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!