

**Data sheet | Item number: 859-706**

Optocoupler module; Nominal input voltage: 24 VDC; Limiting continuous current: 0.5 A; Frequency: 10 kHz; Module width: 6 mm; gray

[www.wago.com/859-706](http://www.wago.com/859-706)



Color:

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.

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## Technical data

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

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## Control Circuit

Nominal input voltage $U_N$	DC 24 V
Input voltage range (low level)	DC 0 ... 5 V
Input voltage range (high level)	DC 18 ... 30 V
Nominal input current at $U_N$	11 mA

## Load circuit

Circuit type	3-wire connection Low-side switching
Limiting continuous current	0.5 A
Nominal output voltage	DC 5 V
Output voltage range	DC 4 ... 6.25 V
Voltage drop at output (max.)	$\leq$ DC 1.2 V
Voltage drop	$\leq$ 1.2 VDC
Leakage current at rated voltage	$\leq$ 10 $\mu$ A
Output closed-circuit current (without load) max.	7 mA
Turn-on time	$\leq$ 7 $\mu$ s
Turn-off time	$\leq$ 15 $\mu$ s
Switching frequency	$\leq$ 10 kHz

## Signaling

Status indicator	Red LED
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## 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
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

Color	gray
Fire load	0.338 MJ
Weight	146.9 g

## Environmental requirements

Ambient temperature (operation at U <sub>N</sub> )	-25 ... +55 °C
Ambient temperature UL (operation at U <sub>N</sub> )	-25 ... +40 °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
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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)	1 pcs
Packaging type	Box
Country of origin	DE
GTIN	4066966423686
Customs tariff number	85365005000

**Environmental Product Compliance**

CAS-No.	1303-86-2 1317-36-8 7439-92-1 75980-60-8 79-94-7
REACH Candidate List Substance	2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol Diboron trioxide Lead Lead monoxide Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-
RoHS Compliance Status	Compliant,With Exemption
RoHS Exemption	7(a) 7(c)-I
SCIP notification number (Austria)	6318c01b-0a70-48bd-9161-02957a783b8a
SCIP notification number (Belgium)	242f89b0-7912-4c88-8d23-7d5ef3f9db8a
SCIP notification number (Bulgaria)	e5d92170-3ed4-4a81-89fc-aabd25fb0b5f
SCIP notification number (Czech Republic)	7b142b70-e95d-4faa-9180-e2653b5062d9
SCIP notification number (Denmark)	652efbcb-f729-4ac5-82dd-d78b9ea8cc93
SCIP notification number (Finland)	96a0bbb5-85a8-4333-8b2d-0bee0b8ba819
SCIP notification number (France)	3075466b-8c94-4f27-a162-17f3bdff67ad
SCIP notification number (Germany)	a255cf19-b730-42a2-85b9-fc740ce38d35
SCIP notification number (Hungary)	abfb4596-d432-44d9-8ef4-09bfcce93a7b
SCIP notification number (Italy)	0a530d8e-0a15-41ed-9850-8c890a4030d4

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SCIP notification number (Netherlands)	d2a565de-f8c0-4959-9fdb-0e3ba43b9035
SCIP notification number (Poland)	c89d8b55-d35b-41c3-b023-5db40c0f0f80
SCIP notification number (Romania)	54a360b1-b5bd-4de7-86b8-5321289fe7a0
SCIP notification number (Sweden)	036ac102-5c42-4e78-843e-5c8217f85582

## Approvals / Certificates

### General approvals

Logo	Approval	Additional Approval Text	Certificate name
	<b>EAC</b> Brjansker Zertifizierungsstelle	TP TC 020/2011	EAC_Certificate_RU_C-DE.AM02.B.00115_19
	<b>UL</b> Underwriters Laboratories Inc. (ORDINARY LOCATIONS)	UL 508	E175199 Sec.4

### Approvals for hazardous areas

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

## Optional accessories

### 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>
<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>

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




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**End plate**


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## 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)


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**Marking accessories**


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## Marking device

**Item no.: 210-110**

Fiber-tip pen

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


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**Marker**


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**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)


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**Jumpers**


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## 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)


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**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)

**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)

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





<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>
<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>	

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

Jumper; for jumper slot; 7-way; insulated; light gray

[www.wago.com/859-407](http://www.wago.com/859-407)**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**

859-706 docx - Datei	2019 年2月20 日	docx 15.8 kB	Download
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859-706 X81 - Datei	2019 年2月19 日	xml 3.9 kB	Download
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**Instruction Leaflet**

CCC Ex (Additional information) 859-***	2023 年4月26 日	pdf 135.9 kB	Download
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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 859-706		URL	Download
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**CAE data**

WSCAD Universe 859-706

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	URL	Download
ZUKEN Portal 859-706	<a href="#">URL</a>	<a href="#">Download</a>
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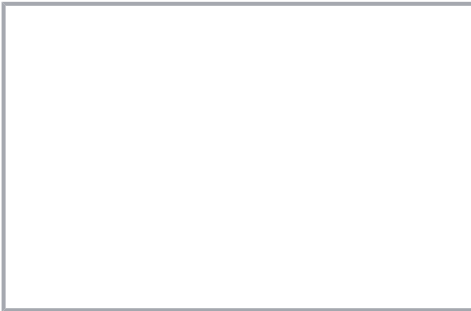
## Environmental Product Compliance

### Compliance Search

Environmental Product Compliance 859-706	<a href="#">URL</a>	<a href="#">Download</a>
Optocoupler module; Nominal input voltage: 24 VDC; Limiting continuous current: 0.5 A; Frequency: 10 kHz; Module width: 6 mm; gray		

## Installation Notes

### Conductor termination



Conductor termination

### Commoning



Easy commoning using adjacent jumpers

### Marking

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

Data sheet | Item number: 859-706

[www.wago.com/859-706](http://www.wago.com/859-706)



Marking via Mini-WSB Quick Marking System

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