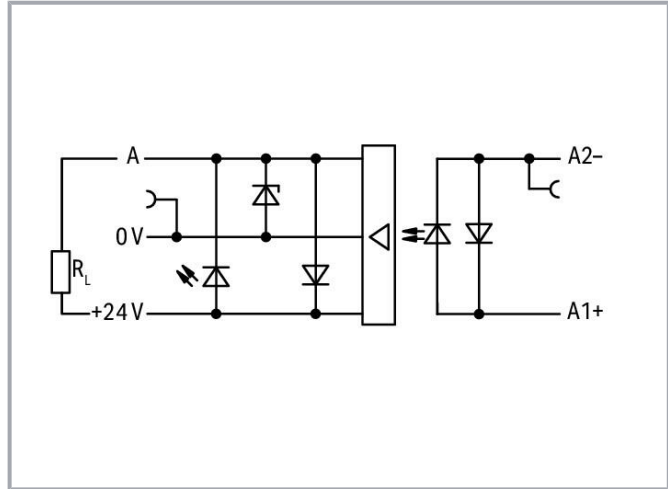
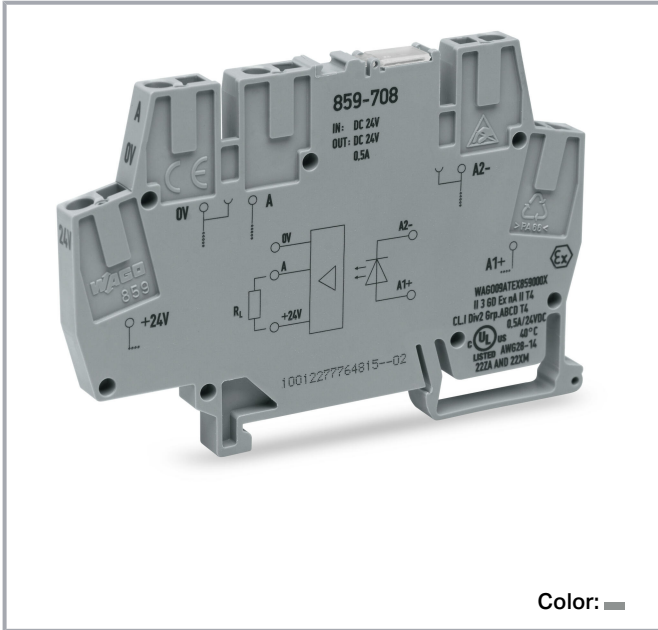


Data sheet | Item number: 859-708

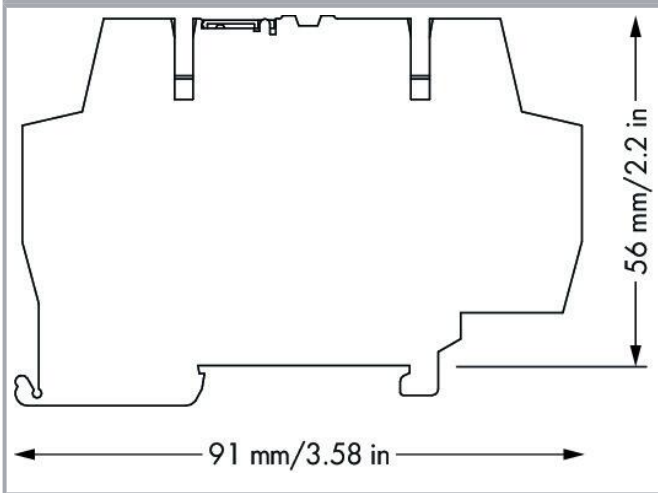
Optocoupler module; Nominal input voltage: 24 VDC; Output voltage range: 0 ... 24 VDC; Limiting continuous current: 0.5 A; Frequency: 10 kHz; Module width: 6 mm; gray



www.wago.com/859-708



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 24 V
Input voltage range	DC 22 ... 30 V
Input voltage range (low level)	DC 0 ... 5 V
Input voltage range (high level)	DC 19 ... 30 V
Nominal input current at U_N	9 mA
Input current range	5.5 ... 15.7 mA

Load circuit

Circuit type	3-wire connection Low-side switching
Limiting continuous current	1 A
Nominal output voltage	DC 24 V
Output voltage range	DC 14 ... 30 V
Voltage drop at output (max.)	≤ DC 1.2 V
Leakage current at rated voltage	≤ 5 μ A
Output closed-circuit current (without load) max.	11 mA
Turn-on time	≤ 7 μ s
Turn-off time	≤ 14 μ s
Rise time (t_{10-90})	3 μ s
Drop-out time (t_{90-10})	3 μ s
Switching frequency	≤ 15 kHz

Signaling

Status indicator	Red LED
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Safety and protection

Rated voltage	300 V
---------------	-------

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



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

Connection data

Connection technology	CAGE CLAMP®
Solid conductor	0.2 ... 2.5 mm ² / 24 ... 14 AWG
Fine-stranded conductor	0.14 ... 2.5 mm ² / 26 ... 14 AWG
Fine-stranded conductor; with insulated ferrule	0.14 ... 1.5 mm ² / 26 ... 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	18.4 g

Environmental requirements

Ambient temperature (operation at U _N)	-25 ... +70 °C
Ambient temperature UL (operation at U _N)	-25 ... +40 °C
Ambient temperature (storage)	-40 ... +85 °C
Processing temperature	-25 ... +50 °C

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

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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 61000-6-2 EN 61000-6-3 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
PU (SPU)	1 pcs
Packaging type	Box
Country of origin	DE
GTIN	4055143604727
Customs tariff number	85365005000

Environmental Product Compliance

CAS-No.	1303-86-2 1317-36-8 7439-92-1 79-94-7
REACH Candidate List Substance	2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol Diboron trioxide Lead Lead monoxide
RoHS Compliance Status	Compliant, With Exemption
RoHS Exemption	7(a) 7(c)-I 7(c)-II
SCIP notification number (Austria)	f5d8c893-72b4-47d3-bfb8-25286d16375d
SCIP notification number (Belgium)	e466a4e7-a5db-4a87-9eed-29db5f29edb6
SCIP notification number (Bulgaria)	df74fea2-cd3a-4d23-abaf-f1eb6fb122b7

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SCIP notification number (Czech Republic)	0813c877-68d9-44eb-be8d-9e925d6b3ed2
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SCIP notification number (France)	9fc971a1-b627-43f6-aadd-2e7f56cf1d2e
SCIP notification number (Germany)	3ad47a8b-2c64-4e0e-94e0-e2c39a9b12f0
SCIP notification number (Hungary)	48a3ceea-d41f-4664-a126-3a7915249ef1
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SCIP notification number (Poland)	34cff21e-d35f-4780-8f86-150ab828bb92
SCIP notification number (Romania)	17950ad7-e814-4615-98c6-c7158a2aa5a6
SCIP notification number (Sweden)	2e5d9a36-de77-4c49-be5e-35148f1c8202

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

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

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

End plate

Intermediate plate



Item no.: 859-525

End and intermediate plate; 1 mm thick; gray

www.wago.com/859-525

Jumpers

Jumper



Item no.: 859-408

Jumper; for jumper slot; 8-way; insulated; light gray

www.wago.com/859-408



Item no.: 859-404/000-005

Jumper; for jumper slot; 4-way; insulated; red

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



Item no.: 859-405/000-005

Jumper; for jumper slot; 5-way; insulated; red

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



Item no.: 859-405

Jumper; for jumper slot; 5-way; insulated; light gray

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



Item no.: 859-406

Jumper; for jumper slot; 6-way; insulated; light gray

www.wago.com/859-406

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

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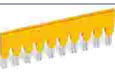









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	Item no.: 859-405/000-006 Jumper; for jumper slot; 5-way; insulated; blue	www.wago.com/859-405/000-006
	Item no.: 859-406/000-005 Jumper; for jumper slot; 6-way; insulated; red	www.wago.com/859-406/000-005
	Item no.: 859-409/000-029 Jumper; for jumper slot; 9-way; insulated; yellow	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
	Item no.: 859-410/000-029 Jumper; for jumper slot; 10-way; insulated; yellow	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
	Item no.: 859-410/000-006 Jumper; for jumper slot; 10-way; insulated; blue	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
	Item no.: 859-402/000-029 Jumper; for jumper slot; 2-way; insulated; yellow	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
	Item no.: 859-403/000-006 Jumper; for jumper slot; 3-way; insulated; blue	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
	Item no.: 859-408/000-029 Jumper; for jumper slot; 8-way; insulated; yellow	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








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

	Item no.: 859-408/000-006 Jumper; for jumper slot; 8-way; insulated; blue	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
	Item no.: 859-409/000-005 Jumper; for jumper slot; 9-way; insulated; red	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
	Item no.: 859-409/000-006 Jumper; for jumper slot; 9-way; insulated; blue	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
	Item no.: 859-402 Jumper; for jumper slot; 2-way; insulated; light gray	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
	Item no.: 859-406/000-006 Jumper; for jumper slot; 6-way; insulated; blue	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
	Item no.: 859-407/000-006 Jumper; for jumper slot; 7-way; insulated; blue	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
	Item no.: 859-407/000-029 Jumper; for jumper slot; 7-way; insulated; yellow	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

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



Marking accessories

Marking devices

	Item no.: 210-110 Fiber-tip pen	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
	Item no.: 248-501 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; white	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
	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
	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
	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


Ferrule

Ferrule

	Item no.: 216-223 Ferrule; Sleeve for 1 mm ² / AWG 18; insulated; electro-tin plated; red	www.wago.com/216-223
	Item no.: 216-222 Ferrule; Sleeve for 0.75 mm ² / 18 AWG; insulated; electro-tin plated; gray	www.wago.com/216-222
	Item no.: 216-221 Ferrule; Sleeve for 0.5 mm ² / 20 AWG; insulated; electro-tin plated; white	www.wago.com/216-221
	Item no.: 216-224 Ferrule; Sleeve for 1.5 mm ² / AWG 16; insulated; electro-tin plated; black	www.wago.com/216-224
	Item no.: 216-321 Ferrule; Sleeve for 0.25 mm ² / AWG 24; insulated; electro-tin plated; yellow	www.wago.com/216-321
	Item no.: 216-322 Ferrule; Sleeve for 0.34 mm ² / 22 AWG; insulated; electro-tin plated; light turquoise	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 ²	www.wago.com/859-500
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Subject to changes. Please also observe the further product documentation!



Downloads

Documentation

Bid Text

859-708 docx - Datei	2019 Feb 20	docx 15.8 kB	Download
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859-708 X81 - Datei	2019 Feb 19	xml 3.9 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 859-708	URL	Download
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CAE data

EPLAN Data Portal 859-708	URL	Download
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ZUKEN Portal 859-708	URL	Download
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WSCAD Universe 859-708	URL	Download
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Environmental Product Compliance

Compliance Search

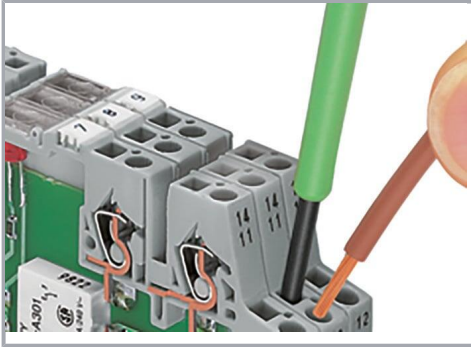
Environmental Product Compliance 859-708	URL	Download
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Subject to changes. Please also observe the further product documentation!

Optocoupler module; Nominal input voltage: 24 VDC; Output voltage range: 0 ... 24 VDC; Limiting continuous current: 0.5 A; Frequency: 10 kHz; Module width: 6 mm; gray

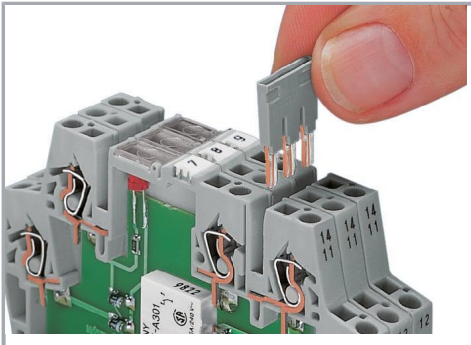
Installation Notes

Conductor termination



Conductor termination

Commoning



Easy commoning using adjacent jumpers

Marking

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



Marking via Mini-WSB Quick Marking System

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