

Data sheet | Item number: 857-704

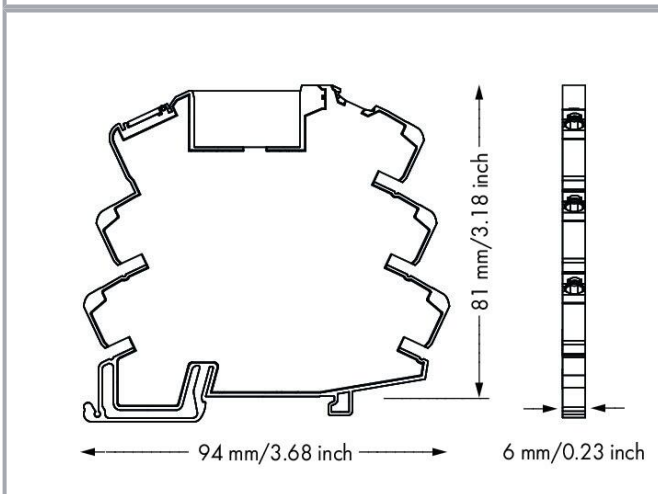
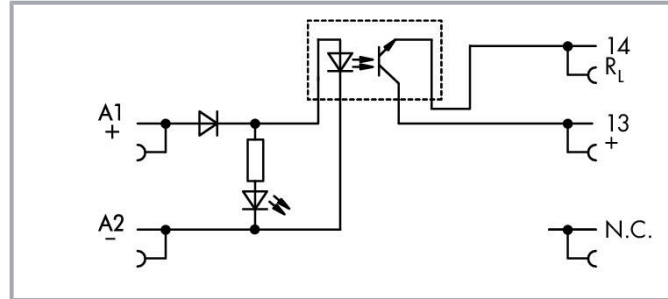
Solid-state relay module; Nominal input voltage: 24 VDC; Output voltage range: 0 ... 48 VDC; Limiting continuous current: 0.1 A; Yellow status indicator; Module width: 6 mm; gray



www.wago.com/857-704



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

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 (low level)	DC 0 ... 10 V
Input voltage range (high level)	DC 16.8 ... 30 V
Nominal input current at U_N	9 mA

Load circuit

Circuit type	2-wire connection 2-wire connection
Limiting continuous current	0.1 A
Nominal output voltage	DC 24 V
Output voltage range	DC 0 ... 48 V
Voltage drop at output (max.)	\leq DC 1 V
Leakage current at rated voltage	\leq 1 μ A
Switching current (min.)	50 μ A
Turn-on time	\leq 100 μ s
Turn-off time	\leq 600 μ s
Switching frequency	\leq 1 kHz

Signaling

Status indicator	Yellow LED Yellow LED
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Subject to changes. Please also observe the further product documentation!



Safety and protection

Rated voltage	300 V
Overvoltage category	III
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	3.51 kVrms
Insulation type (control/load circuit)	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

Connection data

Connection technology	Push-in CAGE CLAMP®
Solid conductor	0.34 ... 2.5 mm ² / 22 ... 14 AWG
Fine-stranded conductor	0.34 ... 2.5 mm ² / 22 ... 14 AWG
Fine-stranded conductor; with insulated ferrule	0.34 ... 1.5 mm ² / 22 ... 16 AWG
Strip length	9 ... 10 mm / 0.35 ... 0.39 inches

Physical data

Width	6 mm / 0.236 inches
Height	94 mm / 3.701 inches
Depth from upper-edge of DIN-rail	81 mm / 3.189 inches

Mechanical data

Mounting type	DIN-35 rail DIN-35 rail
Mounting position	horizontal (standing/lying); vertical

Material Data

Color	gray
Fire load	0.69 MJ
Weight	30.7 g

Environmental requirements

Ambient temperature (operation at U _N)	-20 ... +60 °C
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Subject to changes. Please also observe the further product documentation!



Ambient temperature (storage)	-40 ... +70 °C
Processing temperature	-25 ... +50 °C
Temperature range of connection cable	$\geq (T_{\text{ambient}} + 30 \text{ K})$
Relative humidity	5 ... 85 % (no condensation permissible)
Operating altitude (max.)	2000 m

Standards and specifications

Standards/specifications	EN 61000-6-2 EN 61000-6-3 EN 61373 EN 61010-2-201 UL 508 EN 61000-6-2 EN 61000-6-3 EN 61373 EN 61010-2-201 UL 508
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Basic relay

WAGO Basic Relay	858-164
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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)	25 (1) pcs
Packaging type	Box
Country of origin	CN
GTIN	4045454835491
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

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RoHS Exemption	6(c) 7(a) 7(c)-I 7(c)-II
SCIP notification number (Austria)	f0ff34c4-3ec8-4337-87b7-07cd356739fb
SCIP notification number (Belgium)	96d388b2-8744-4f02-b0b6-13ee246fb126
SCIP notification number (Bulgaria)	508fb6c7-e6ba-4584-9d2b-13ab2998ce45
SCIP notification number (Czech Republic)	350da321-5683-4002-a35c-1a8ab5a235b8
SCIP notification number (Denmark)	31a374ab-4018-445e-aea4-28a63bf01f7e
SCIP notification number (Finland)	fde443c7-0494-42a3-b5b5-e257364dc328
SCIP notification number (France)	ff1ee0f4-8cd3-43cd-938f-b9888f89ea13
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SCIP notification number (Romania)	ef639f7d-83bd-4665-ab42-c300c6bd5f31
SCIP notification number (Sweden)	938a65c9-eaca-4aee-8585-8d43a41bc4c8

Approvals / Certificates

General approvals

Logo	Approval	Additional Approval Text	Certificate name
	CCC CNEX	CNCA-C23-01	2020312304000757 (Ex ec IIC T4 Gc)
	EAC Brjansker Zertifizierungsstelle	TP TC 020/2011	EAC_Certificate_RU_C- DE.AM02.B.00115_19
	EAC Brjansker Zertifizierungsstelle	TP TC 012/2011	EAC Ex 857 RU_C_DE. AZ_58_B_02148_21 nA (2Ex nA IIC T4 Gc X)

Declarations of conformity and manufacturer's declarations

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

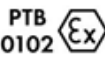



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Approvals for hazardous areas


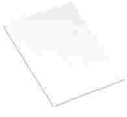












Logo	Approval	Additional Approval Text	Certificate name
	ATEX DEKRA EXAM GmbH	EN 60079-0	BVS_14_ATEX_E_091_X (II 3G Ex ec nC IIC T4 Gc; II 3G Ex ec IIC T4 Gc)
	CCC CNEX	CNCA-C23-01	2020312304000757 (Ex ec IIC T4 Gc)
	IECEX DEKRA EXAM GmbH	IEC 60079-0	IECEX_BVS_14. 0079X_Issue_3 (Ex ec nC IIC T4 Gc; Ex ec IIC T4 Gc)
	UKEx WAGO GmbH & Co. KG	EN 60079-0	WAGO22UKEX002X_ec

Optional accessories














Marking accessories

Marking strip			
	Item no.: 2009-110 Marking strips; for Smart Printer; on reel; not stretchable; plain; snap-on type; white		www.wago.com/2009-110
Double marker carrier			
	Item no.: 209-128 Adaptor; gray		www.wago.com/209-128
Marking devices			
	Item no.: 210-110 Fiber-tip pen		www.wago.com/210-110
Protective marker cover			
	Item no.: 209-184 Protection cover; transparent		www.wago.com/209-184
Marker			















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

	Item no.: 2009-115 WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white	www.wago.com/2009-115
	Item no.: 209-183 Marker; white	www.wago.com/209-183
	Item no.: 793-501 WMB marking card; as card; not stretchable; plain; snap-on type; white	www.wago.com/793-501
	Item no.: 793-502 WMB marking card; as card; MARKED; 1 ... 10 (10x); not stretchable; Horizontal marking; snap-on type; white	www.wago.com/793-502
	Item no.: 793-503 WMB marking card; as card; MARKED; 11 ... 20 (10x); not stretchable; Horizontal marking; snap-on type; white	www.wago.com/793-503
	Item no.: 793-504 WMB marking card; as card; MARKED; 21 ... 30 (10x); not stretchable; Horizontal marking; snap-on type; white	www.wago.com/793-504
	Item no.: 793-505 WMB marking card; as card; MARKED; 31 ... 40 (10x); not stretchable; Horizontal marking; snap-on type; white	www.wago.com/793-505
	Item no.: 793-506 WMB marking card; as card; MARKED; 41 ... 50 (10x); not stretchable; Horizontal marking; snap-on type; white	www.wago.com/793-506
	Item no.: 793-566 WMB marking card; as card; MARKED; 1 ... 50 (2x); not stretchable; Horizontal marking; snap-on type; white	www.wago.com/793-566
	Item no.: 793-5501 WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; white	www.wago.com/793-5501
Group marker carrier		
	Item no.: 249-105 Group marker carrier; gray	www.wago.com/249-105
Ferrule		
Ferrule		
	Item no.: 216-241 Ferrule; Sleeve for 0.5 mm ² / 20 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; white	www.wago.com/216-241
	Item no.: 216-242 Ferrule; Sleeve for 0.75 mm ² / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray	www.wago.com/216-242
	Item no.: 216-243 Ferrule; Sleeve for 1 mm ² / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red	www.wago.com/216-243

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

	<p>Item no.: 216-244 Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black</p>	www.wago.com/216-244
Jumpers		
Jumper		
	<p>Item no.: 859-408 Jumper; for jumper slot; 8-way; insulated; light gray</p>	www.wago.com/859-408
	<p>Item no.: 281-482 Jumper; 2-way; insulated; gray</p>	www.wago.com/281-482
	<p>Item no.: 859-404/000-005 Jumper; for jumper slot; 4-way; insulated; red</p>	www.wago.com/859-404/000-005
	<p>Item no.: 859-404/000-006 Jumper; for jumper slot; 4-way; insulated; blue</p>	www.wago.com/859-404/000-006
	<p>Item no.: 859-405/000-005 Jumper; for jumper slot; 5-way; insulated; red</p>	www.wago.com/859-405/000-005
	<p>Item no.: 859-405/000-029 Jumper; for jumper slot; 5-way; insulated; yellow</p>	www.wago.com/859-405/000-029
	<p>Item no.: 859-405 Jumper; for jumper slot; 5-way; insulated; light gray</p>	www.wago.com/859-405
	<p>Item no.: 859-404/000-029 Jumper; for jumper slot; 4-way; insulated; yellow</p>	www.wago.com/859-404/000-029
	<p>Item no.: 859-406 Jumper; for jumper slot; 6-way; insulated; light gray</p>	www.wago.com/859-406
	<p>Item no.: 859-405/000-006 Jumper; for jumper slot; 5-way; insulated; blue</p>	www.wago.com/859-405/000-006
	<p>Item no.: 859-406/000-005 Jumper; for jumper slot; 6-way; insulated; red</p>	www.wago.com/859-406/000-005
	<p>Item no.: 859-409/000-029 Jumper; for jumper slot; 9-way; insulated; yellow</p>	www.wago.com/859-409/000-029

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

	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
	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

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



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

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

Interface module

Interface adapters



Item no.: 857-982

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

Interface adapter; 14-pole; High-side switching output

www.wago.com/857-982



Item no.: 857-986

Interface adapter; 15-pole; High-side switching input

www.wago.com/857-986



Item no.: 857-981

Interface adapter; 14-pole; High-side switching input

www.wago.com/857-981

Basic Relay

Basic solid-state relay



Item no.: 857-164

Basic solid-state relay; Nominal input voltage: 24 VDC; Output voltage range: 0 ... 48 VDC

www.wago.com/857-164

Downloads

Documentation

Bid Text

857-704 docx - Datei	2019 Feb 20	docx 16.5 kB	Download
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857-704 X81 - Datei	2019 Feb 19	xml 4.2 kB	Download
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Instruction Leaflet

CCC Ex (Additional information) 857_***	2023 Apr 26	pdf 133.0 kB	Download
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Elektromechanical and Solid-State Relays/Optocouplers	V 2.0.0 2022 Feb 15	pdf 2.6 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 857-704		URL	Download
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CAE data

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

EPLAN Data Portal 857-704

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WSCAD Universe 857-704

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ZUKEN Portal 857-704

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Environmental Product Compliance

Compliance Search

Environmental Product Compliance 857-704

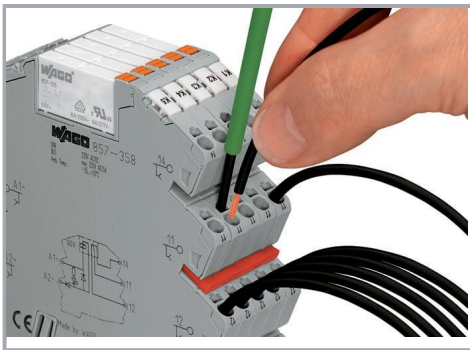
[URL](#)

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Solid-state relay module; Nominal input voltage: 24 VDC; Output voltage range: 0 ... 48 VDC; Limiting continuous current: 0.1 A; Yellow status indicator; Module width: 6 mm; gray

Installation Notes

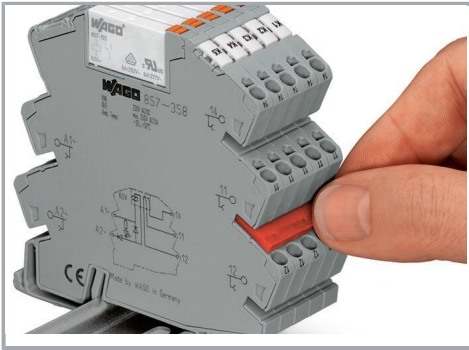
Conductor termination



Conductor termination

Commoning

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



Easy commoning using adjacent jumpers

Marking



Marking via WMB Multi Marking System.

Installation



Removing a relay via ejector.

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