Data sheet | Item number: 857-714
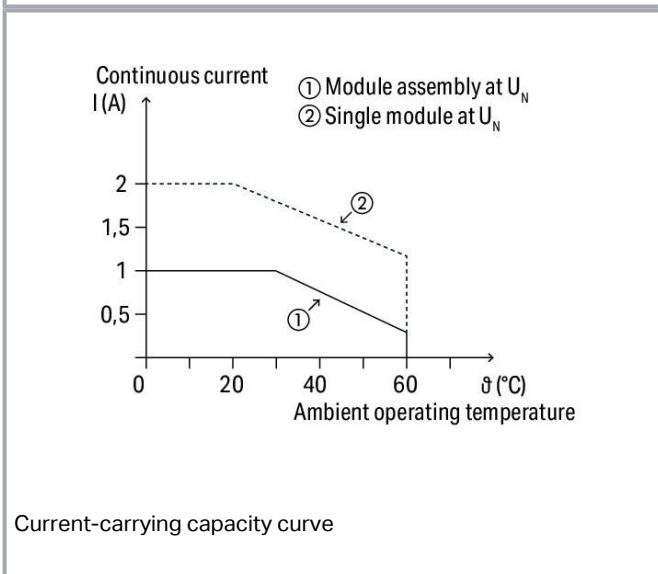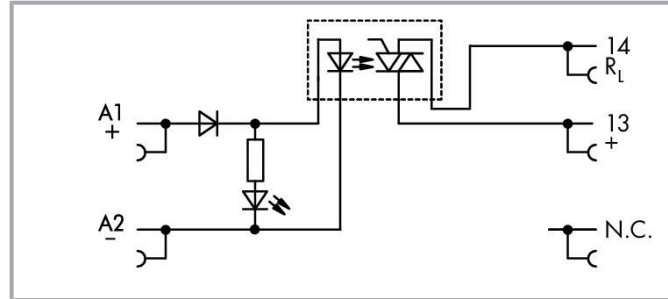
Solid-state relay module; Nominal input voltage: 24 VDC; Output voltage range: 24 … 240 VAC; Limiting continuous current: 2 A; 2-wire connection; zero-cross switching; Yellow status indicator; Module width: 6 mm; gray

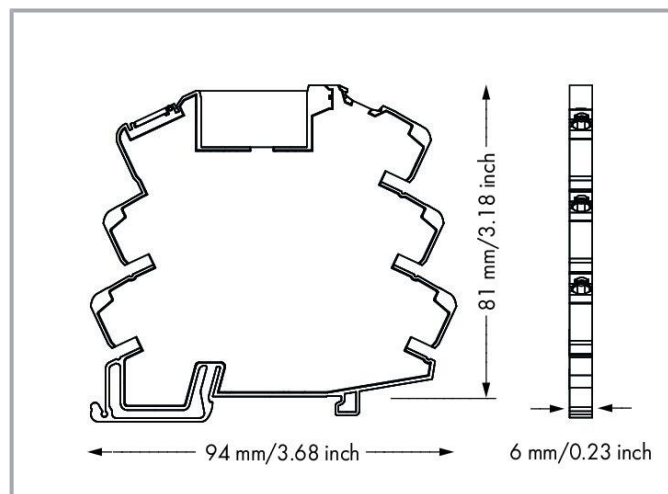www.wago.com/857-714

Color: ▬

Current-carrying capacity curve

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

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 20 … 28.8 V
Nominal input current at U_N	10 mA

Load circuit

Circuit type	2-wire connection Zero-voltage switching
Limiting continuous current	2 A
Nominal output voltage	AC 230 V
Output voltage range	AC 24 … 240 V
Voltage drop at output (max.)	≤ AC 1.6 V
Leakage current at rated voltage	≤ 1.5 mA
Switching current (min.)	22 mA
Turn-on time	≤ 10 ms
Turn-off time	≤ 10 ms
Switching frequency	50 Hz / 60 Hz

Signaling

Status indicator	Yellow LED

Safety and protection

Rated voltage	300 V
Overvoltage category	III

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

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 mm² / 22 … 14 AWG
Fine-stranded conductor	0.34 … 2.5 mm² / 22 … 14 AWG
Fine-stranded conductor; with insulated ferrule	0.34 … 1.5 mm² / 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
Mounting position	horizontal (standing/lying); vertical

Material Data

Color	gray
Fire load	0.69 MJ
Weight	29.3 g

Environmental requirements

Ambient temperature (operation at U_N)	-20 … +60 °C
Ambient temperature (storage)	-40 … +70 °C
Processing temperature	-25 … +50 °C
Temperature range of connection cable	$\geq (T_{ambient} + 30\,K)$
Relative humidity	5 … 85 % (no condensation permissible)
Operating altitude (max.)	2000 m

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

Standards and specifications

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

Basic relay

WAGO Basic Relay	857-167

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	4045454835545
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	6(c)
	7(a)
	7(c)-I
	7(c)-II
SCIP notification number (Austria)	e1be6fb9-4706-430c-873e-29c6c4fffbcd
SCIP notification number (Belgium)	35ac389a-dd2b-40ba-93f8-561e53d69fb3
SCIP notification number (Bulgaria)	1f4a17cb-fde4-4d5e-a76d-d1c7e74ed1d3
SCIP notification number (Czech Republic)	c219fe0f-72d5-48fa-9e67-3b0db3f092fd
SCIP notification number (Denmark)	24f6c854-8bba-4fb7-a33d-6b4327984608
SCIP notification number (Finland)	f396a1b7-6c72-4160-af53-1e98f21bcce1

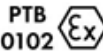Subject to changes. Please also observe the further product documentation!

SCIP notification number (France)	81c10d44-5142-449a-adb7-d009ad4a6a01
SCIP notification number (Germany)	ab41c137-1d14-4f02-be24-87de5fc8eb2c
SCIP notification number (Hungary)	a5ed00dc-7b85-4783-94f8-1a2321300a5c
SCIP notification number (Italy)	5a65ea83-3a05-4bcd-9d10-3ccec1f1e375
SCIP notification number (Netherlands)	f96a146d-a122-4b34-afab-8ce4f26cbb3a
SCIP notification number (Poland)	82725d69-22d1-4f83-a4bc-773cd85a6129
SCIP notification number (Romania)	6b965222-8af7-470f-9cf1-8ab072602be2
SCIP notification number (Sweden)	9c3c9749-a281-423c-bdae-23fffb4579bf

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 004/2011	EAC RU C-DE.AM02. B.00122/19
	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)

Approvals for hazardous areas

Logo	Approval	Additional Approval Text	Certificate name
PTB 0102	**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	**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

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

Optional accessories

Basic Relay

Basic solid-state relay

Item no.: 857-167

Basic solid-state relay; Nominal input voltage: 24 VDC; Output voltage range: 24 … 240 VAC; Limiting continuous current: 2 A

www.wago.com/857-167

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

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

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

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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

Jumpers

Jumper

Item no.: 859-408
Jumper; for jumper slot; 8-way; insulated; light gray
www.wago.com/859-408

Item no.: 281-482
Jumper; 2-way; insulated; gray
www.wago.com/281-482

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

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

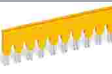|	Item no.: 859-405 Jumper; for jumper slot; 5-way; insulated; light gray	www.wago.com/859-405
	Item no.: 859-404/000-029 Jumper; for jumper slot; 4-way; insulated; yellow	www.wago.com/859-404 /000-029
	Item no.: 859-406 Jumper; for jumper slot; 6-way; insulated; light gray	www.wago.com/859-406
	Item 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

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

	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
	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

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

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	Item no.: 859-407/000-006	www.wago.com/859-407
	Jumper; for jumper slot; 7-way; insulated; blue	/000-006
	Item no.: 859-407/000-005	www.wago.com/859-407
	Jumper; for jumper slot; 7-way; insulated; red	/000-005
	Item no.: 859-407/000-029	www.wago.com/859-407
	Jumper; for jumper slot; 7-way; insulated; yellow	/000-029
	Item no.: 859-407	www.wago.com/859-407
	Jumper; for jumper slot; 7-way; insulated; light gray	

Ferrule

Ferrule

	Item no.: 216-241	
	Ferrule; Sleeve for 0.5 mm² / 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 mm² / 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 mm² / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red	www.wago.com/216-243
	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	www.wago.com/216-244

Interface module

Interface adapters

	Item no.: 857-982	www.wago.com/857-982
	Interface adapter; 14-pole; High-side switching output	
	Item no.: 857-986	www.wago.com/857-986
	Interface adapter; 15-pole; High-side switching input	
	Item no.: 857-981	www.wago.com/857-981
	Interface adapter; 14-pole; High-side switching input	

Tool

Operating tool

	Item no.: 210-720	www.wago.com/210-720
	Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured	

Downloads
Documentation

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

Bid Text

857-714 docx - Datei	2019 Feb 20	docx 16.7 kB	Download
857-714 X81 - Datei	2019 Feb 19	xml 4.3 kB	Download

Instruction Leaflet

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

Additional Information

Disposal and Recycling Electrical and electronic equipment, Batteries, Packaging	V 1.1.0 2022 Aug 18	pdf 2.2 MB	Download

CAD/CAE-Data

CAD data

2D/3D Models 857-714	URL	Download

CAE data

WSCAD Universe 857-714	URL	Download
ZUKEN Portal 857-714	URL	Download
EPLAN Data Portal 857-714	URL	Download

Environmental Product Compliance

Compliance Search

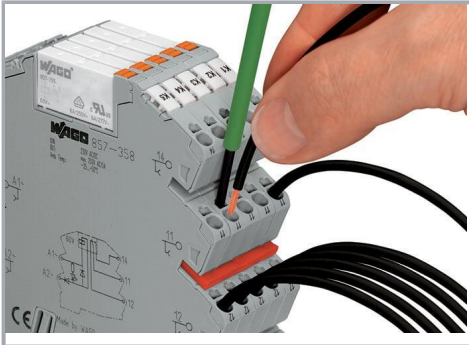|		
Environmental Product Compliance 857-714 Solid-state relay module; Nominal input voltage: 24 VDC; Output voltage range: 24 … 240 VAC; Limiting continuous current: 2 A; 2-wire connection; zero-cross switching; Yellow status indicator; Module width: 6 mm; gray	URL	Download

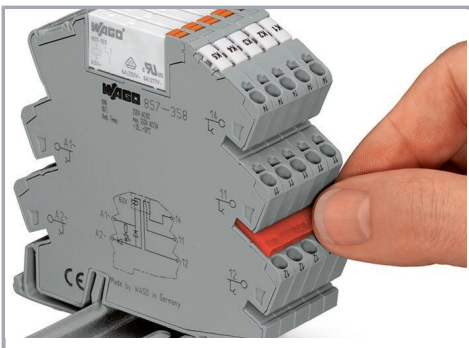Subject to changes. Please also observe the further product documentation!

Installation Notes

Conductor termination

Conductor termination

Commoning

Easy commoning using adjacent jumpers

Marking

Marking via WMB Multi Marking System.

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

Installation

Removing a relay via ejector.

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

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