

Data Sheet | Item Number: 857-704

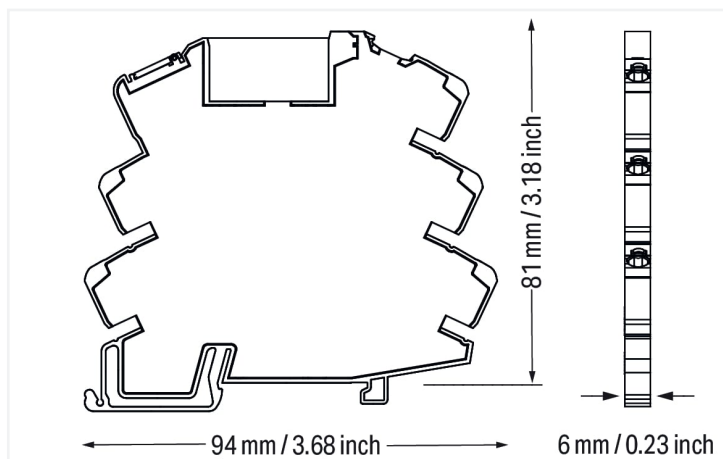
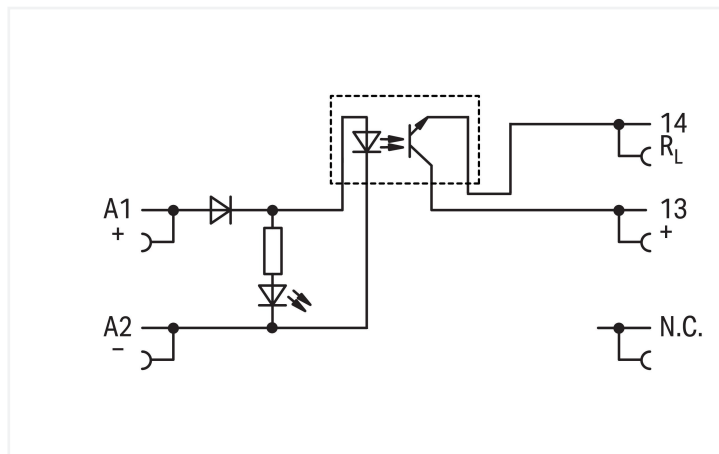
Solid-state relay module; Nominal input voltage: 24 VDC; Output voltage range: 0 ... 48 VDC; Limiting continuous current: 0.1 A; Yellow status indicator; Module width: 6 mm; gray



<https://www.wago.com/857-704>



Color: ■ gray



Notes

Note

Optocouplers and solid state relays are designed for use in signal processing networks that are not supplied directly by the low-voltage power supply network.

Technical data

Control circuit

Nominal input voltage U_N	24 VDC
Input voltage range (low level)	0 ... 10 VDC
Input voltage range (high level)	16.8 ... 30 VDC
Nominal input current at U_N	9 mA

Load circuit

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

Signaling

Status indicator	Yellow LED
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Safety and protection

Rated Voltage	300 V
Overtoltage 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
Mounting position	horizontal (standing/lying); vertical

Material data

Note (material data)	Information on material specifications can be found here
Color	gray
Insulation material (main housing)	Polyamide (PA66)
Material group	I
Flammability class per UL94	V0
Fire load	0.544 MJ
Weight	30.3 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	≥ (T _{ambient} + 30 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
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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 9.0	EC001504
ETIM 8.0	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
RoHS Exemption	7(a)
SCIP notification number (Austria)	fcff34c4-3ec8-4337-87b7-07cd356739fb
SCIP notification number (Belgium)	96d388b2-8744-4f02-b0b6-13ee246f126
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
SCIP notification number (Germany)	58969c06-56af-4579-ae7-46b35d6ccbc1
SCIP notification number (Hungary)	0a1827be-d99f-4bda-a0f3-83d9a6c47afd
SCIP notification number (Italy)	431bf98b-6227-41d8-9cf7-4d6503c8be2a
SCIP notification number (Netherlands)	66f365d2-c07e-4131-a0aa-591915887aa7
SCIP notification number (Poland)	b54d9860-a02e-40c2-a390-30605741cb3e
SCIP notification number (Romania)	ef639f7d-83bd-4665-ab42-c300c6bd5f31
SCIP notification number (Sweden)	938a65c9-eaca-4aee-8585-8d43a41bc4c8

Approvals / Certificates

General approvals



Approval	Standard	Certificate Name
EAC GZO Almaty Standart	TP TC 020/2011	EAC CoC 03081
UL Underwriters Laboratories Inc. (ORDINARY LOCATIONS)	UL 508	E175199 Sec.4

Declarations of conformity and manufacturer's declarations

Approval	Standard	Certificate Name
EU-Declaration of Conformity WAGO GmbH & Co. KG	-	-

Approvals for hazardous areas



Approval	Standard	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

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 857-704	↓
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Documentation

Bid Text			
857-704	19.02.2019	xml 4.13 KB	↓
857-704	20.02.2019	docx 16.14 KB	↓

Instruction Leaflet			
CCC Ex (Additional information)	26.04.2023	pdf 129.88 KB	↓

CAD/CAE-Data

CAD data	CAE data
2D/3D Models 857-704	EPLAN Data Portal 857-704
	WSCAD Universe 857-704
	ZUKEN Portal 857-704

1 Compatible Products

1.1 Optional Accessories

1.1.1 Basic relay

1.1.1.1 Basic solid-state relay



Item No.: 857-164
 Basic solid-state relay; Nominal input voltage: 24 VDC; Output voltage range: 0 ... 48 VDC

1.1.2 Ferrule

1.1.2.1 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



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



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



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

1.1.3 Interface module

1.1.3.1 Interface adapters



Item No.: 857-981
 Interface adapter; 14-pole; High-side switching input



Item No.: 857-982
 Interface adapter; 14-pole; High-side switching output



Item No.: 857-986
 Interface adapter; 15-pole; High-side switching input

1.1.4 Jumper

1.1.4.1 Jumper



Item No.: [281-482](#)

Jumper; 2-way; insulated; gray

Item No.: [859-410/000-006](#)

Jumper; for jumper slot; 10-way; insulated; blue

Item No.: [859-410](#)

Jumper; for jumper slot; 10-way; insulated; light gray

Item No.: [859-410/000-005](#)

Jumper; for jumper slot; 10-way; insulated; red



Item No.: [859-410/000-029](#)

Jumper; for jumper slot; 10-way; insulated; yellow



Item No.: [859-402/000-006](#)

Jumper; for jumper slot; 2-way; insulated; blue

Item No.: [859-402](#)

Jumper; for jumper slot; 2-way; insulated; light gray

Item No.: [859-402/000-005](#)

Jumper; for jumper slot; 2-way; insulated; red



Item No.: [859-402/000-029](#)

Jumper; for jumper slot; 2-way; insulated; yellow



Item No.: [859-403/000-006](#)

Jumper; for jumper slot; 3-way; insulated; blue

Item No.: [859-403](#)

Jumper; for jumper slot; 3-way; insulated; light gray

Item No.: [859-403/000-005](#)

Jumper; for jumper slot; 3-way; insulated; red



Item No.: [859-403/000-029](#)

Jumper; for jumper slot; 3-way; insulated; yellow



Item No.: [859-404/000-006](#)

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

Item No.: [859-404](#)

Jumper; for jumper slot; 4-way; insulated; light gray

Item No.: [859-404/000-005](#)

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



Item No.: [859-404/000-029](#)

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



Item No.: [859-405/000-006](#)

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

Item No.: [859-405](#)

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

Item No.: [859-405/000-005](#)

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



Item No.: [859-405/000-029](#)

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



Item No.: [859-406/000-006](#)

Jumper; for jumper slot; 6-way; insulated; blue

Item No.: [859-406](#)

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

Item No.: [859-406/000-005](#)

Jumper; for jumper slot; 6-way; insulated; red



Item No.: [859-406/000-029](#)

Jumper; for jumper slot; 6-way; insulated; yellow



Item No.: [859-407/000-006](#)

Jumper; for jumper slot; 7-way; insulated; blue

Item No.: [859-407](#)

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

Item No.: [859-407/000-005](#)

Jumper; for jumper slot; 7-way; insulated; red



Item No.: [859-407/000-029](#)

Jumper; for jumper slot; 7-way; insulated; yellow



Item No.: [859-408/000-006](#)

Jumper; for jumper slot; 8-way; insulated; blue

Item No.: [859-408](#)

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

Item No.: [859-408/000-005](#)

Jumper; for jumper slot; 8-way; insulated; red



Item No.: [859-408/000-029](#)

Jumper; for jumper slot; 8-way; insulated; yellow



Item No.: [859-409/000-006](#)

Jumper; for jumper slot; 9-way; insulated; blue

Item No.: [859-409](#)

Jumper; for jumper slot; 9-way; insulated; light gray

Item No.: [859-409/000-005](#)

Jumper; for jumper slot; 9-way; insulated; red



Item No.: [859-409/000-029](#)

Jumper; for jumper slot; 9-way; insulated; yellow

1.1.5 Marking

1.1.5.1 Double marker carrier



Item No.: 209-128
Adaptor; gray

1.1.5.2 Group marker carrier



Item No.: 249-105
Group marker carrier; gray

1.1.5.3 Marker



Item No.: 209-183
Marker; white



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



Item No.: 793-502
WMB marking card; as card; MARKED; 1 ... 10 (10x); not stretchable; Horizontal marking; snap-on type; white



Item No.: 793-566
WMB marking card; as card; MARKED; 1 ... 50 (2x); not stretchable; Horizontal marking; snap-on type; white



Item No.: 793-503
WMB marking card; as card; MARKED; 11 ... 20 (10x); not stretchable; Horizontal marking; snap-on type; white



Item No.: 793-504
WMB marking card; as card; MARKED; 21 ... 30 (10x); not stretchable; Horizontal marking; snap-on type; white



Item No.: 793-505
WMB marking card; as card; MARKED; 31 ... 40 (10x); not stretchable; Horizontal marking; snap-on type; white



Item No.: 793-506
WMB marking card; as card; MARKED; 41 ... 50 (10x); not stretchable; Horizontal marking; snap-on type; white



Item No.: 793-501
WMB marking card; as card; not stretchable; plain; snap-on type; white



Item No.: 2009-115
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white

1.1.5.4 Marking device



Item No.: 210-110
Fiber-tip pen

1.1.5.5 Marking strip



Item No.: 2009-110
Marking strips; for Smart Printer; on reel; not stretchable; plain; snap-on type; white

1.1.5.6 Protective marker cover



Item No.: 209-184
Protection cover; transparent

1.1.6 Tool

1.1.6.1 Operating tool

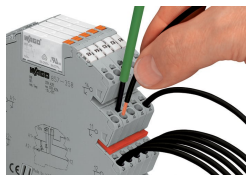


Item No.: 210-720

Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured

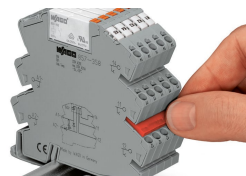
Installation Notes

Conductor termination



Conductor termination

Commoning



Easy commoning using adjacent jumpers

Marking



Marking via WMB Multi Marking System.

Installation



Removing a relay via ejector.