

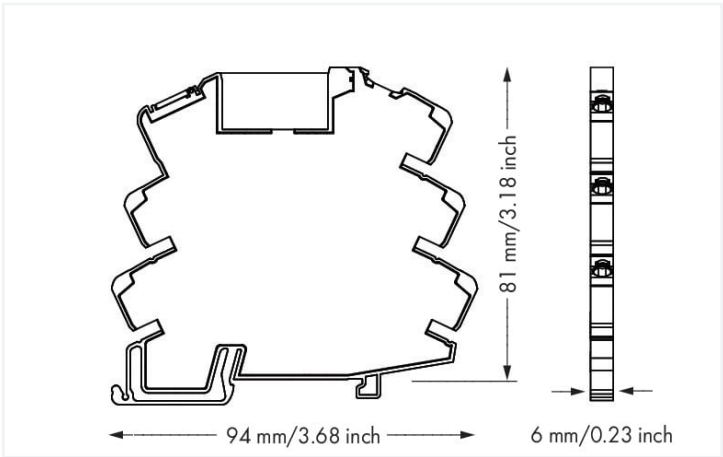
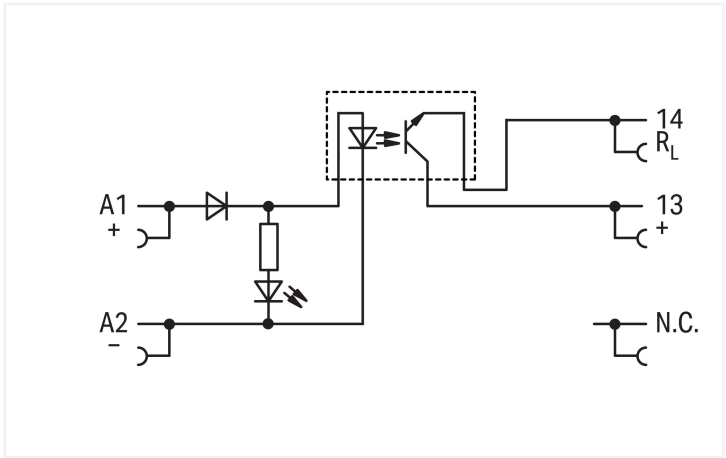
Data Sheet | Item Number: 857-704

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



Dimensions in mm

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		Load circuit	
Nominal input voltage U_N	DC 24 V	Circuit type	2-wire connection
Input voltage range (low level)	DC 0 ... 10 V	Limiting continuous current	0.1 A
Input voltage range (high level)	DC 16.8 ... 30 V	Nominal output voltage	DC 24 V
Nominal input current at U_N	9 mA	Output voltage range	DC 0 ... 48 V
		Voltage drop	≤ 1 VDC
		Leakage current at rated voltage	$\leq 1 \mu A$
		Switching current (min.)	50 μA
		Turn-on time	$\leq 100 \mu s$
		Turn-off time	$\leq 600 \mu s$
		Switching frequency	≤ 1 kHz



Signaling	
Status indicator	Yellow LED

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 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	
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

Basic relay	
WAGO Basic Relay	858-164

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-b0b6-13ee246fb126
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
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

ApprovalStandardCertificate Name

EU-Declaration of Confor-
mity
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_Is- sue_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



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 in- formation)	26.04.2023	pdf 129.88 KB	↓
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CAD/CAE-Data	
CAD data 2D/3D Models 857-704 ↓	CAE data 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; signal 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

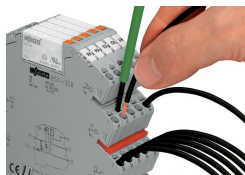


Item No.: 210-720

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

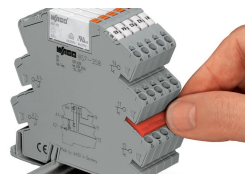
Installation Notes

Conductor termination



Conductor termination

Commoning



Easy commoning using adjacent jumpers

Marking



Marking via WMB Multi Marking System.

Installation



Removing a relay via ejector.