

Data Sheet | Item Number: 857-704

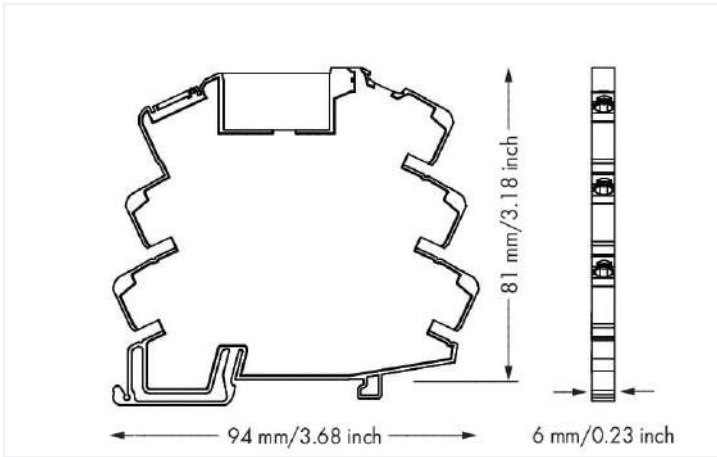
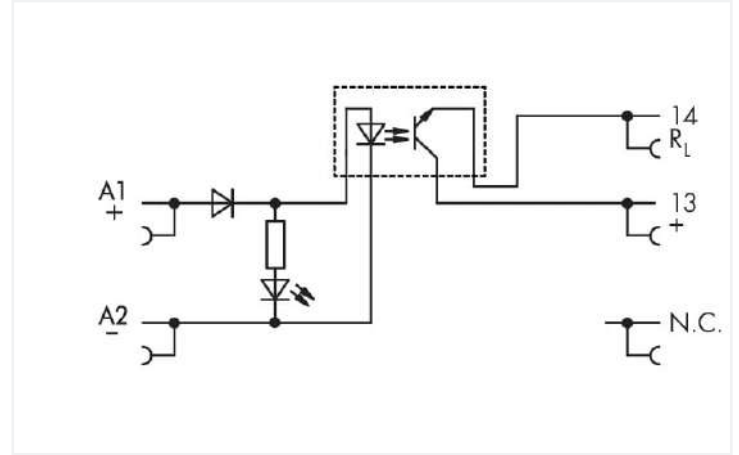
Solid-state relay module; Nominal input voltage: 24 VDC; Output voltage range: 0 ... 48 VDC; Limiting continuous current: 0.1 A; Yellow status indicator; Module width: 6 mm; gray



<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, 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
Limiting continuous current	0.1 A
Nominal output voltage	DC 24 V
Output voltage range	DC 0 ... 48 V
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
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
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
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 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
RoHS Exemption	6(c) 7(a) 7(c)-I 7(c)-II
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 Brjansker Zertifizierungs- stelle	TP TC 020/2011	EAC_Certificate_RU_C- DE.AM02.B.00115_19
EAC Brjansker Zertifizierungs- stelle	TP TC 012/2011	EAC Ex 857 RU_C_DE. AZ_58_B_02148_21 nA (2Ex nA IIC T4 Gc X)
UL Underwriters Laboratories Inc. (ORDINARY LOCATI- ONS)	UL 508	E175199 Sec.4

Declarations of conformity and manufacturer's declarations

Approval	Standard	Certificate 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	↓


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

1.1.4.1 Jumper



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 devices

 Item No.: 210-110 Fiber-tip pen
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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
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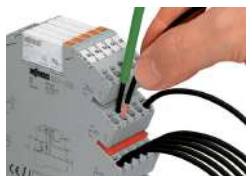
1.1.6 Tool

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.