

## Data Sheet | Item Number: 857-708

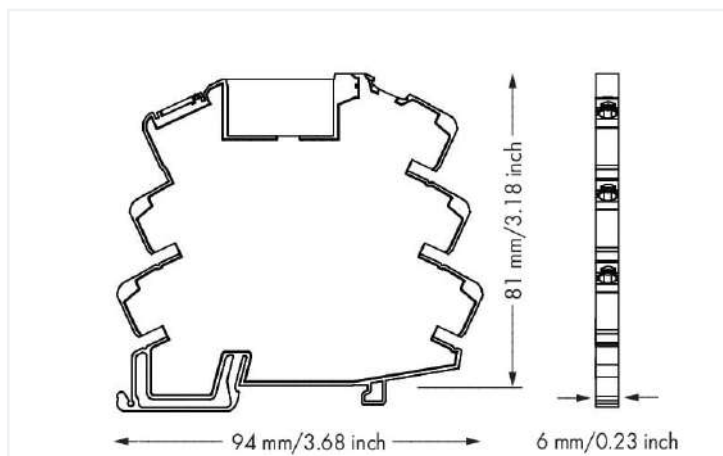
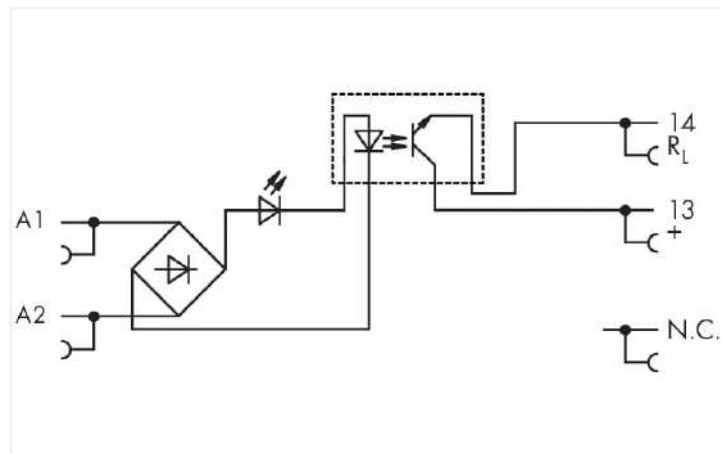
Solid-state relay module; Nominal input voltage: 230 V AC/DC; Output voltage range: 0 ... 48 VDC; Limiting continuous current: 0.1 A; 2-wire connection; Yellow status indicator; Module width: 6 mm; gray



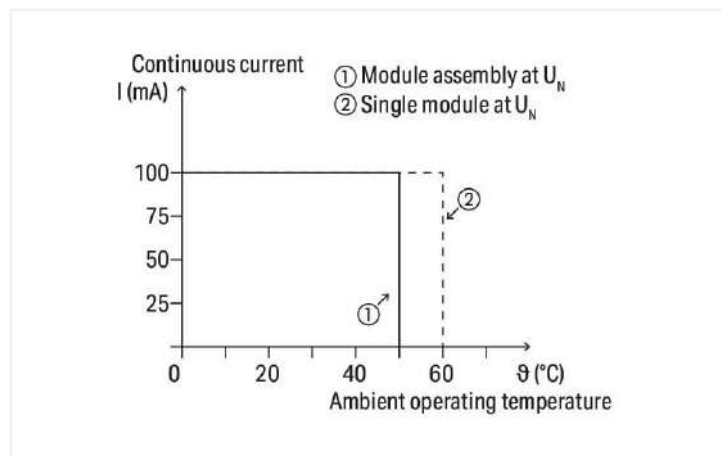
<https://www.wago.com/857-708>



Color: ■ gray



Dimensions in mm



Current-carrying capacity curve

### 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 $U_N$	AC/DC 230 V
Input voltage range (low level)	AC/DC 0 ... 30 V
Input voltage range (high level)	AC/DC 200 ... 253 V
Nominal input current at $U_N$	4 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	$\leq 1$ VDC
Leakage current at rated voltage	$\leq 1$ $\mu$ A
Switching current (min.)	50 $\mu$ A
Turn-on time	$\leq 4.5$ ms
Turn-off time	$\leq 10$ ms
Switching frequency	$\leq 20$ Hz

### 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 <sup>2</sup> / 22 ... 14 AWG
Fine-stranded conductor	0.34 ... 2.5 mm <sup>2</sup> / 22 ... 14 AWG
Fine-stranded conductor; with insulated ferrule	0.34 ... 1.5 mm <sup>2</sup> / 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	0.648 MJ
Weight	30.7 g

### Environmental requirements

Ambient temperature (operation at U <sub>N</sub> )	-20 ... +60 °C
Ambient temperature (storage)	-40 ... +70 °C
Processing temperature	-25 ... +50 °C
Temperature range of connection cable	≥ (T <sub>ambient</sub> + 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	857-165
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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	DE
GTIN	4045454835514
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 (Bulgaria)	f70c9b06-cb20-4326-bdd8-6063a3a2bad4
SCIP notification number (Czech Republic)	f644b729-cf8b-4021-bc1e-9c846bb94cc8

### 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 004/2011	EAC RU C-DE.AM02. B.00122/19
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 857-708

Documentation

Bid Text			
857-708	19.02.2019	xml 4.15 KB	
857-708	20.02.2019	docx 15.99 KB	

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

CAD/CAE-Data

CAD data
2D/3D Models 857-708

CAE data
EPLAN Data Portal 857-708
WSCAD Universe 857-708
ZUKEN Portal 857-708

1 Compatible Products

1.1 Optional Accessories

1.1.1 Basic relay

1.1.1.1 Basic solid-state relay



**Item No.: 857-165**  
 Basic solid-state relay; Nominal input voltage: 60 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 mm<sup>2</sup> / 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 mm<sup>2</sup> / 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 mm<sup>2</sup> / 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 mm<sup>2</sup> / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black

1.1.3 Jumper

1.1.3.1 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

1.1.3.1 Jumper



**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

1.1.4 Marking

1.1.4.1 Double marker carrier



**Item No.: 209-128**  
 Adaptor; gray

1.1.4.2 Group marker carrier



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

1.1.4.3 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

1.1.4.4 Marking devices



**Item No.: 210-110**  
 Fiber-tip pen

### 1.1.4.5 Marking strip



Item No.: [2009-110](#)

Marking strips; for Smart Printer; on reel; not stretchable; plain; snap-on type; white

### 1.1.4.6 Protective marker cover



Item No.: [209-184](#)

Protection cover; transparent

## 1.1.5 Tool

### 1.1.5.1 Operating tool

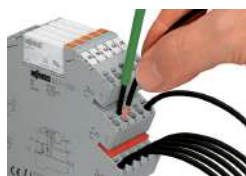


Item No.: [210-720](#)

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.