

Data Sheet | Item Number: 857-707

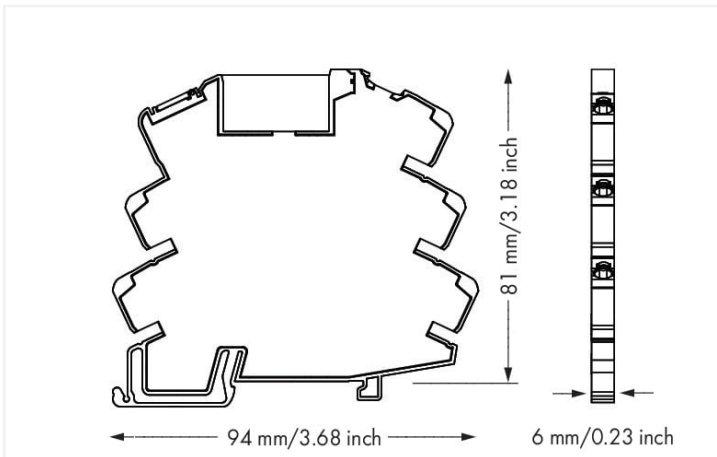
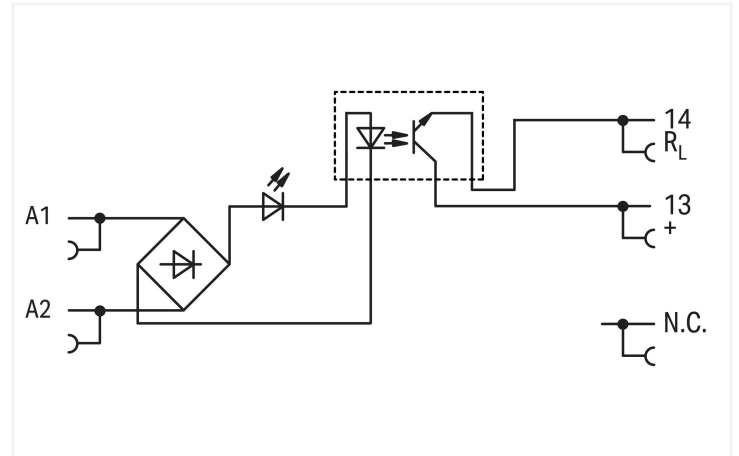
Solid-state relay module; Nominal input voltage: 115 V AC/DC; Output voltage range: 0 ... 48 VDC; Limiting continuous current: 0.1 A; 2-wire connection; Yellow status indicator; Module width: 6 mm; gray



<https://www.wago.com/857-707>



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

| | |
|----------------------------------|---------------------|
| Nominal input voltage U_N | AC/DC 115 V |
| Input voltage range (low level) | AC/DC 0 ... 25 V |
| Input voltage range (high level) | AC/DC 100 ... 138 V |
| Nominal input current at U_N | 5 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 | ≤ 4.5 ms |
| Turn-off time | ≤ 10 ms |
| Switching frequency | ≤ 20 Hz |

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 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 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 | 857-165 |
|------------------|---------|

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 | DE |
| GTIN | 4045454835507 |
| 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) 7(c)-I |
| SCIP notification number (Bulgaria) | 3205be0a-c261-456b-8e3d-188bf36045fc |
| SCIP notification number (Czech Republic) | 4cb2e7d3-e45d-480b-bc22-9725c4fc5f0b |

Approvals / Certificates

| General approvals | Declarations of conformity and manufacturer's declarations |
|-------------------|--|
|-------------------|--|

| Approval | Standard | Certificate Name |
|--|----------------|------------------|
| EAC GZO Almaty Standart | TP TC 004/2011 | EAC CoC 03078 |
| EAC GZO Almaty Standart | TP TC 020/2011 | EAC CoC 03081 |
| UL Underwriters Laboratories Inc. (ORDINARY LOCATIONS) | UL 508 | E175199 Sec.4 |

| 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_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 857-707 ↓ |

Documentation

| Bid Text | | | |
|----------|------------|------------------|-------------------|
| 857-707 | 19.02.2019 | xml 4.15 KB | ↓ |
| 857-707 | 20.02.2019 | docx 15.97 KB | ↓ |

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

CAD/CAE-Data

| CAD data |
|--|
| 2D/3D Models 857-707 ↓ |

| CAE data |
|---|
| EPLAN Data Portal 857-707 ↓ |
| WSCAD Universe 857-707 ↓ |
| ZUKEN Portal 857-707 ↓ |

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 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 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

1.1.3.1 Jumper



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

1.1.4 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 device



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

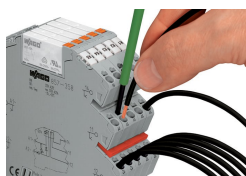


Item No.: 210-720

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

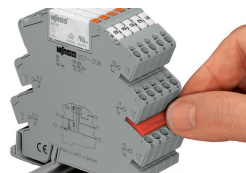
Installation Notes

Conductor termination



Conductor termination

Commoning



Easy commoning using adjacent jumpers

Marking



Marking via WMB Multi Marking System.

Installation



Removing a relay via ejector.