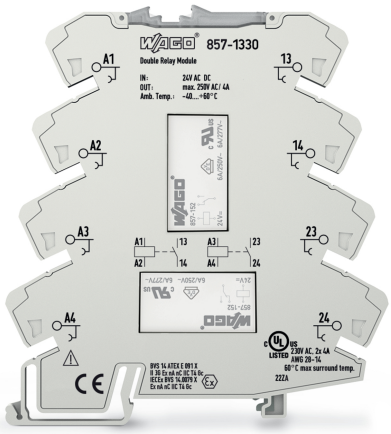
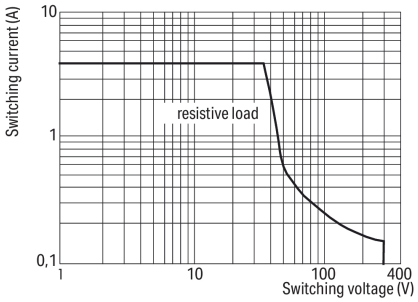
# Data Sheet | Item Number: 857-1330

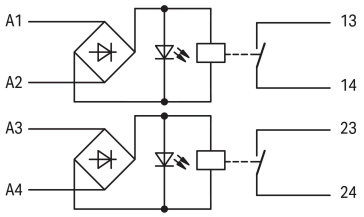
Relay module; 2-port; Nominal input voltage: 24 V AC/DC; 1 make contact; Limiting continuous current: 4 A; Yellow status indicator; Module width: 6 mm; 2,50 mm²

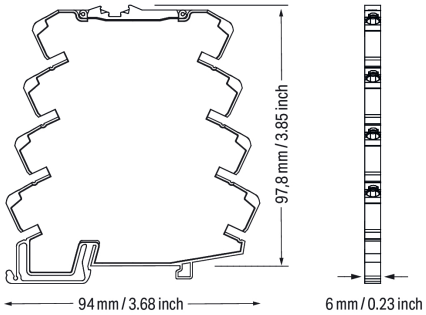
https://www.wago.com/857-1330




DC load limit curve




## Notes

| | |
|---|---|
| Note | To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit. |

## Technical data

### Control circuit

| | |
|---|---|
| Nominal input voltage $U_N$ | 24 VAC/VDC |
| Input voltage range | -15 … +20 % |
| Nominal input current at $U_N$ | 10 mA |

### Load circuit

| | |
|---|---|
| Number of make/switch-on contacts | 1 |
| Contact material (relay) | $AgSnO_2$ |
| Limiting continuous current | 4 A |
| Inrush current (resistive) max. | (AC) 20 A / 0.02 s |
| Switching Voltage, Max. | 250 VAC |
| Switching power (resistive) max. | AC 1000 VA; DC (see load limit curve) |
| Utilization category | AC-15: 3 A / 250 VAC<br>DC-13: 2 A / 24 VDC |
| Recommended minimum load | 10 V / 10 mA; 24 V / 1 mA |
| Pull-in time (typ.) | 15 ms |
| Drop-out time (typ.) | 25 ms |

## Load circuit

| | |
|---|---|
| Bounce time (typ.) | 3.5 ms |
| Electrical life (NO; resistive load; 23 °C) | 50 x $10^3$ switching operations |
| Mechanical life | 5 x $10^6$ switching operations |
| Switching frequency with/without load (max.) | 6 $min^{-1}$ / 180 $min^{-1}$ |

## Signaling

| | |
|---|---|
| Status indicator | Yellow LED |

## Safety and protection

| | |
|---|---|
| Rated Voltage | 300 V |
| Overvoltage category | II |
| Pollution degree | 2 |
| Dielectric strength (control/load circuit) (AC, 1 min) | 4 kVrms |
| Dielectric strength (open contact) (AC, 1 min) | 1 kVrms |
| Dielectric strength (channel/channel) (AC, 1 min.) | 3 kVrms |
| Insulation type (control/load circuit) | Reinforced insulation (safe isolation) |
| Insulation type (load/load circuit) | Reinforced insulation (safe isolation) |
| Insulation type (between adjacent devices of the same type) | Reinforced insulation (safe isolation) |
| 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 | 97.8 mm / 3.85 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 |
| Insulation material (main housing) | Polyamide (PA66) |
| Flammability class per UL94 | V0 |
| Fire load | 0.468 MJ |
| Weight | 39.3 g |


Continued on next page

## Environmental requirements

| | |
|---|---|
| Ambient temperature (operation at $U_N$) | -40 … +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 61010-2-201<br>EN 61810-1<br>EN 61373<br>UL 508<br>ATEX<br>IECEx |

## Commercial data

| | |
|---|---|
| Product Group | 6 (INTERFACE ELECTRONIC) |
| PU (SPU) | 25 (1) pcs |
| Packaging type | Box |
| Country of origin | DE |
| GTIN | 4066966380125 |
| Customs tariff number | 85364900990 |

## Product Classification

| | |
|---|---|
| UNSPSC | 39122334 |
| eCl@ss 10.0 | 27-37-16-01 |
| eCl@ss 9.0 | 27-37-16-01 |
| ETIM 9.0 | EC001437 |
| ETIM 10.0 | EC001437 |
| ECCN | NO US CLASSIFICATION |

## Environmental Product Compliance

| | |
|---|---|
| CAS-No. | 1303-86-2<br>1317-36-8<br>7439-92-1<br>79-94-7 |
| REACH Candidate List Substance | 2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol<br>Diboron trioxide<br>Lead<br>Lead monoxide |
| RoHS Compliance Status | Compliant,No Exemption |
| SCIP notification number (Austria) | 8168b107-474c-46c7-bde2-d21ca93fa017 |
| SCIP notification number (Belgium) | 8336f5b5-9623-4b4a-9d84-5608f27cbb51 |
| SCIP notification number (Bulgaria) | 6b676836-8901-4141-9a22-1180742388e6 |
| SCIP notification number (Czech Republic) | 397f1ad1-e765-4bf8-9d66-104d825fa1db |
| SCIP notification number (Denmark) | 9517a8e1-c1c6-4000-8546-1e11de060cad |
| SCIP notification number (Finland) | c325346d-d153-4c59-81ca-648a4633d3e0 |
| SCIP notification number (France) | a864ad96-384b-4309-9cf9-c35c4a2ec507 |
| SCIP notification number (Germany) | c13f5355-76a3-42f0-8654-456cba560b24 |
| SCIP notification number (Hungary) | 0058c806-abd0-4e13-b691-146108f6ab40 |
| SCIP notification number (Italy) | 94bebbf9-d59b-470d-81e9-a1ac75b96d76 |
| SCIP notification number (Netherlands) | a7b4bb33-bf3e-45d1-a73b-4413764b61ff |
| SCIP notification number (Poland) | cc097f14-63bd-4bcc-833d-fbfb37478c45 |
| SCIP notification number (Romania) | e57484e5-ec34-489a-b49b-bf8a45d2686a |
| SCIP notification number (Sweden) | bdad4532-22d1-4f17-a6a2-c395a890e08e |


Continued on next page

## Approvals / Certificates

### General approvals

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

### Approvals for hazardous areas

| Approval | Standard | Certificate Name |
|---|---|---|
| ATEX<br>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<br>CNEX | CNCA-C23-01 | 2020312304000757 (Ex ec nC IIC T4 Gc) |
| IECEx<br>DEKRA EXAM GmbH | IEC 60079-0 | IECEX_BVS_14.0079X_Issue_3 (Ex ec nC IIC T4 Gc; Ex ec IIC T4 Gc) |
| UKEx<br>WAGO GmbH & Co. KG | EN 60079-0 | UKCA_WAGO22UKEX002X_ec nC |

## Downloads

### Environmental Product Compliance

**Compliance Search**

Environmental Product Compliance 857-1330

### Documentation

**Bid Text**

| | | | |
|---|---|---|---|
| 857-1330 | 19.02.2019 | xml<br>4.64 KB | |
| 857-1330 | 20.02.2019 | docx<br>16.04 KB | |

**Instruction Leaflet**

| | | | |
|---|---|---|---|
| CCC Ex (Additional information) | 26.04.2023 | pdf<br>129.88 KB | |
| Elektromechanical and Solid-State Relays/Optocouplers | V 2.0.0<br>15.02.2022 | pdf<br>2352.42 KB | |

### CAD/CAE-Data

**CAD data**

2D/3D Models 857-1330

**CAE data**

EPLAN Data Portal 857-1330

WSCAD Universe 857-1330

ZUKEN Portal 857-1330


Continued on next page

# 1 Compatible Products

## 1.1 Optional Accessories

### 1.1.1 Ferrule

#### 1.1.1.1 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

### 1.1.2 Jumper

#### 1.1.2.1 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


Continued on next page

### 1.1.2.1 Jumper



Item No.: 859-409/000-029
Jumper; for jumper slot; 9-way; insulated; yellow

## 1.1.3 Marking

### 1.1.3.1 Double marker carrier



Item No.: 209-128
Adaptor; gray

### 1.1.3.2 Group marker carrier



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

### 1.1.3.3 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

### 1.1.3.4 Marking device



Item No.: 210-110
Fiber-tip pen

### 1.1.3.5 Marking strip



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


Continued on next page

### 1.1.3.6 Protective marker cover



Item No.: 209-184
Protection cover; transparent

## 1.1.4 Tool

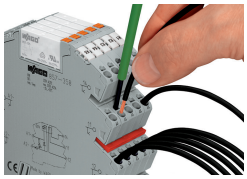
### 1.1.4.1 Operating tool



Item No.: 210-720
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured

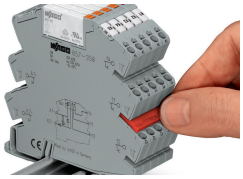
# Installation Notes

## Conductor termination



Conductor termination

## Commoning



Easy commoning using adjacent jumpers

## Marking



Marking via WMB Multi Marking System.

## Installation



Removing a relay via ejector.


Continued on next page