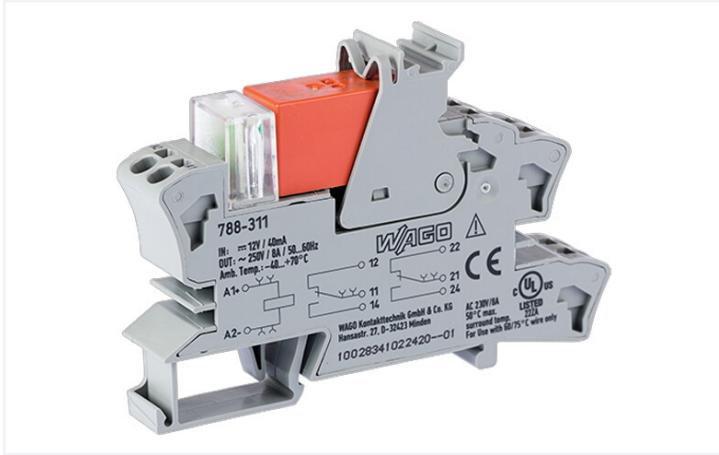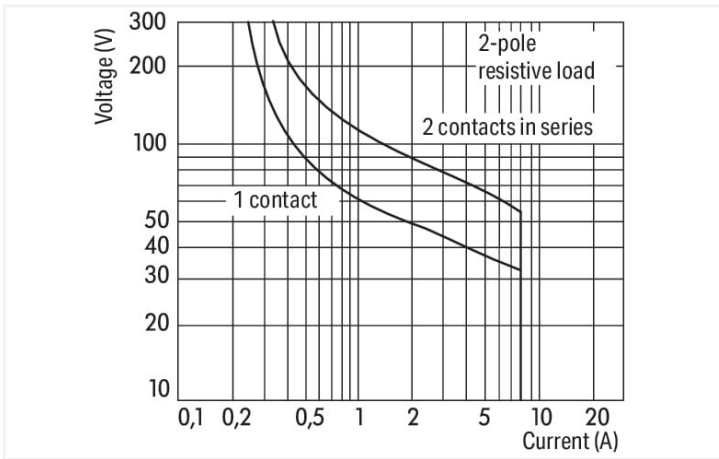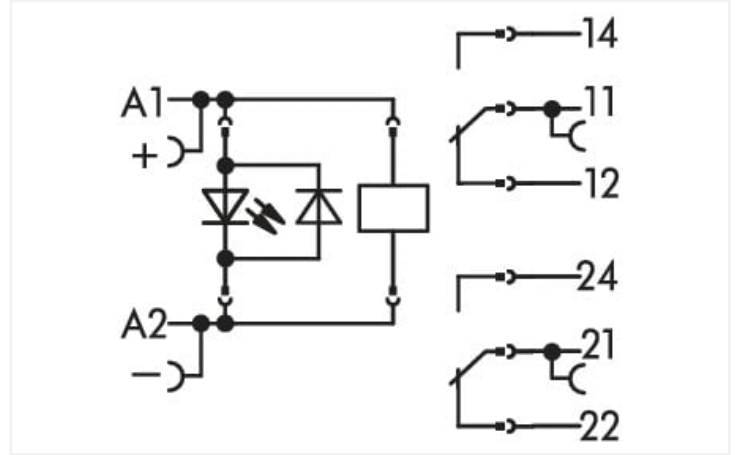# Data Sheet | Item Number: 788-311

Relay module; Nominal input voltage: 12 VDC; 2 changeover contacts; Limiting continuous current: 8 A; Red status indicator; Module width: 15 mm; 2,50 mm²; gray
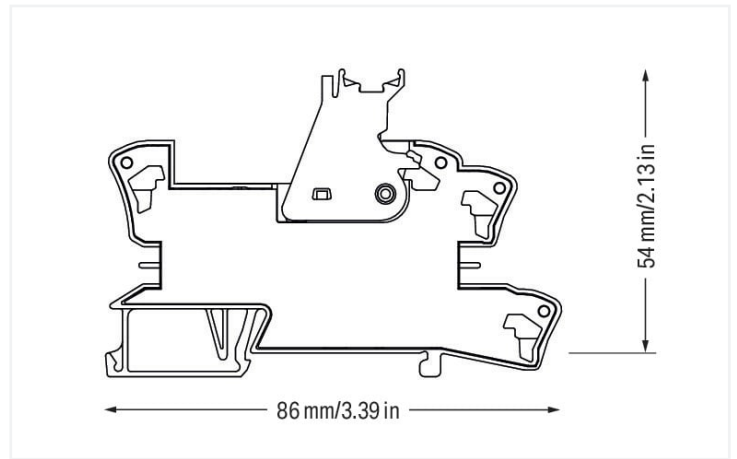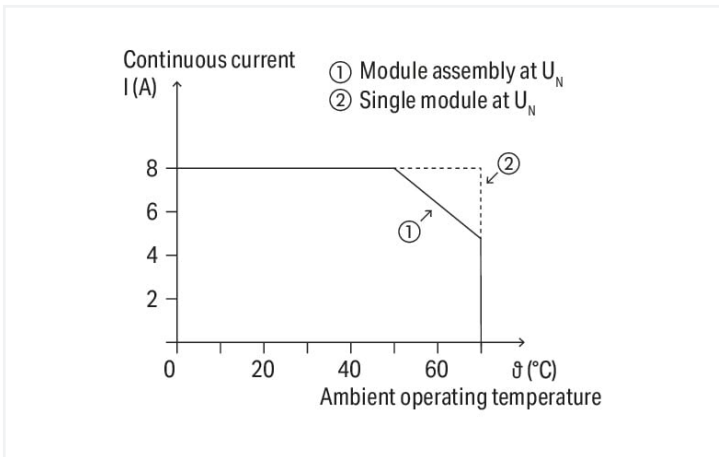
Color: ▪ gray





DC load limit curve



Dimensions in mm



Current-carrying capacity curve

Version 16.05.2023

## Notes

| | |
|---|---|
| Safety information | A separator plate (e.g., 209-191) must be used for voltages greater than 250 V between adjacent relay modules and for compliance with the reinforced insulation requirements. |
| Note | • Reinforced insulation between coil and contacts<br>• To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit. |

## Technical data

### Control circuit

| | |
|---|---|
| Nominal input voltage $U_N$ | DC 12 V |
| Input voltage range | ±10 % |
| Nominal input current at $U_N$ | 36 mA |

### Load circuit

| | |
|---|---|
| Number of changeover/switchover contacts | 2 |
| Contact material (relay) | AgNi 90/10 |
| Limiting continuous current | 8 A |
| Inrush current (resistive) max. | (AC) 15 A / 4 s |
| Switching voltage (max.) | AC 250 V |
| Switching power (resistive) max. | AC 2000 VA; DC (see load limit curve) |
| Switching capacity | AC-15: 3 A / AC 250 V; DC-13: 2 A / DC 24 V |
| Recommended minimum load | 12 V / 10 mA |
| Pull-in time (typ.) | 8 ms |
| Drop-out time (typ.) | 13 ms |
| Bounce time (typ.) | 10 ms |
| Electrical life (NO; resistive load; 23 °C) | $10 \times 10^3$ switching operations |
| Mechanical life | $30 \times 10^6$ switching operations |
| Switching frequency with/without load (max.) | 6 min$^{-1}$ / 1200 min$^{-1}$ |

### Signaling

| | |
|---|---|
| Status indicator | Red LED |

## Safety and protection

| | |
|---|---|
| Rated voltage | 250 V |
| Rated surge voltage | 4 kV |
| Pollution degree | 3 |
| Dielectric strength (control/load circuit) (AC, 1 min) | 5 kVrms |
| Dielectric strength (open contact) (AC, 1 min) | 1 kVrms |
| Dielectric strength (load/load circuit) (AC, 1 min) | 2.5 kVrms |
| Safety information | A separator plate (e.g., 209-191) must be used for voltages greater than 250 V between adjacent relay modules and for compliance with the reinforced insulation requirements. |
| 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 |
| Strip length | 9 … 10 mm / 0.35 … 0.39 inches |

## Physical data

| | |
|---|---|
| Width | 15 mm / 0.591 inches |
| Height | 86 mm / 3.386 inches |
| Depth from upper-edge of DIN-rail | 54 mm / 2.126 inches |

## Mechanical data

| | |
|---|---|
| Mounting type | DIN-35 rail |

## Material data

| | |
|---|---|
| Color | gray |
| Fire load | 0.677 MJ |
| Weight | 45.4 g |

## Environmental requirements

| | |
|---|---|
| Ambient temperature (operation at $U_N$) | -40 … +70 ℃ |
| Ambient temperature UL (operation at $U_N$) | -40 … +50 ℃ |
| Ambient temperature (storage) | -40 … +70 ℃ |
| Processing temperature | -25 … +50 ℃ |
| Temperature range of connection cable | $\geq (T_{ambient} + 20\ K)$ |

## Standards and specifications

| | |
|---|---|
| Standards/specifications | EN 61010-2-201 |
| | EN 61810-1 |
| | EN 61373 |
| | UL 508 |

## Basic relay

| | |
|---|---|
| WAGO Basic Relay | 788-152 |

## Commercial data

| | |
|---|---|
| Product Group | 6 (INTERFACE ELECTRONIC) |
| eCl@ss 10.0 | 27-37-16-01 |
| eCl@ss 9.0 | 27-37-16-01 |
| ETIM 8.0 | EC001437 |
| ETIM 7.0 | EC001437 |
| PU (SPU) | 20 (1) pcs |
| Packaging type | Box |
| Country of origin | CN |
| GTIN | 4055143184120 |
| Customs tariff number | 85364900990 |

## Environmental Product Compliance

| | |
|---|---|
| RoHS Compliance Status | Compliant,No Exemption |

## Approvals / Certificates

### General approvals

| Approval | Standard | Certificate Name |
|---|---|---|
| EAC<br>Brjansker Zertifizierungs-stelle | TP TC 004/2011 | EAC RU C-DE.AM02.B.00122/19 |
| UL<br>Underwriters Laboratories Inc. (ORDINARY LOCATI-ONS) | UL 508 | E175199 Vol.1 Sec.6 |

### Declarations of conformity and manufacturer's declarations

| Approval | Standard | Certificate Name |
|---|---|---|
| EU-Declaration of Confor-mity<br>WAGO GmbH & Co. KG | - | - |
| UK-Declaration of Confor-mity<br>WAGO GmbH & Co. KG | - | - |

## Downloads

### Environmental Product Compliance

**Compliance Search**

| | |
|---|---|
| Environmental Product Compliance 788-311 | ↓ |

## Documentation

**Bid Text**

| | | | |
|---|---|---|---|
| 788-311 | 25.01.2019 | docx<br>16.54 KB | ↓ |
| 788-311 | 19.02.2019 | xml<br>4.60 KB | ↓ |

**Instruction Leaflet**

| | | | |
|---|---|---|---|
| Sockets with Elementa-ry Relay/ SSR | V 1.0.1<br>09.10.2020 | pdf<br>2271.22 KB | ↓ |

## CAD/CAE-Data

**CAD data**

| | |
|---|---|
| 2D/3D Models 788-311 | ↓ |

**CAE data**

| | |
|---|---|
| EPLAN Data Portal<br>788-311 | ↓ |
| WSCAD Universe<br>788-311 | ↓ |
| ZUKEN Portal 788-311 | ↓ |

## 1 Compatible Products

## 1.1 Optional Accessories

## 1.1.1 Basic relay

## 1.1.1.1 Basic relay

**Item No.: 788-152**
Basic relay; Nominal input voltage: 12 VDC; 2 changeover contacts; Limiting continuous current: 8 A; Module width: 13 mm; Module height: 15 mm

## 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

**Item No.: 216-542**
Twin ferrule; Sleeve for 2 x 1 mm² / AWG 2 x 18; red, insulated; 12 mm long; red

## 1.1.3 Indicators

### 1.1.3.1 Status indication

**Item No.: 788-120**
Accessories for relay modules; Operation status indicator: red; Nominal operating voltage: 24 VDC

## 1.1.4 Jumper

### 1.1.4.1 Jumper

**Item No.: 788-118**
Jumper; for jumper slot; 2-way; from 1 to 3; insulated; light gray

**Item No.: 788-113**
Jumper; for jumper slot; 2-way; insulated; light gray

**Item No.: 859-402**
Jumper; for jumper slot; 2-way; insulated; light gray

**Item No.: 788-114**
Jumper; for jumper slot; 3-way; insulated; light gray

**Item No.: 788-115**
Jumper; for jumper slot; 4-way; insulated; light gray

**Item No.: 788-116**
Jumper; for jumper slot; 6-way; insulated; light gray

**Item No.: 788-117**
Jumper; for jumper slot; 8-way; insulated; light gray

## 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

Item No.: 209-145
Group marker carrier; white

## 1.1.5.3 Marker

Item No.: 209-183
Marker; white

Item No.: 793-502
WMB marking card; as card; MARKED; 1 ... 10 (10x); not stretchable; Horizontal marking; snap-on type; white

Item No.: 793-503
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.: 793-501
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

## 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

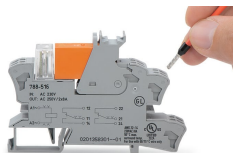## 1.1.6 Tool

## 1.1.6.1 Operating tool

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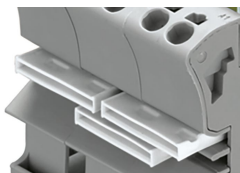partially insulated shaft; multicoloured

## Installation Notes

### Conductor termination

Conductor termination

### Commoning

Easy commoning using adjacent jumpers

### Marking

Marking using WMB Multi markers and
group marker carriers.

Subject to changes. Please also observe the further product documentation!

Current addresses can be found at:: www.wago.com