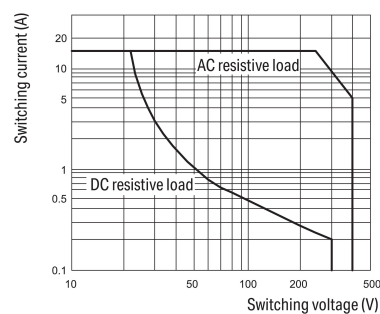
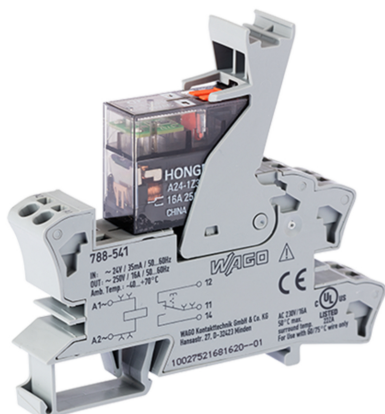


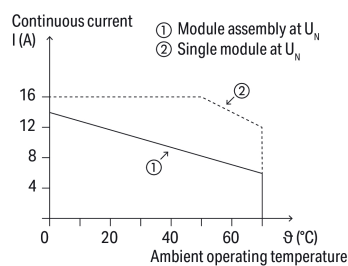
## Data Sheet | Item Number: 788-541

Relay module; Nominal input voltage: 24 VAC; 1 changeover contact; Limiting continuous current: 16 A; with manual operation; Red status indicator; Module width: 15 mm

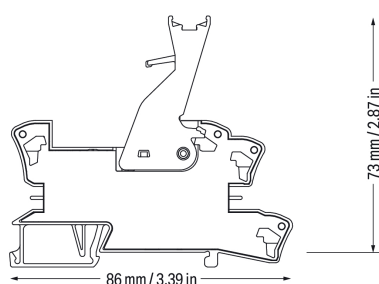
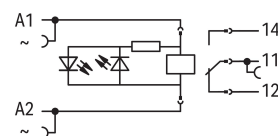
<https://www.wago.com/788-541>



Load limit curve



### Current-carrying capacity curve





| Notes              |                                                                                                                                                                    |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Safety Information | A separator plate (e.g., 209-191) must be used for voltages exceeding 250 V between adjacent relay modules and to comply with 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                         | Load circuit                                 |
| Nominal input voltage U <sub>N</sub>    | 24 VAC                                       |
| Input voltage range                     | ±10 %                                        |
| Nominal input current at U <sub>N</sub> | 32 mA                                        |
|                                         | Number of changeover/switchover contacts     |
|                                         | 1                                            |
|                                         | Contact material (relay)                     |
|                                         | AgNi                                         |
|                                         | Limiting continuous current                  |
|                                         | 16 A                                         |
|                                         | Inrush current (resistive) max.              |
|                                         | (AC) 32 A / 0.02 s; (AC) 24 A / 4 s          |
|                                         | Switching Voltage, Max.                      |
|                                         | 250 VAC                                      |
|                                         | Switching power (resistive) max.             |
|                                         | AC 4000 VA; DC (see load limit curve)        |
|                                         | Switching capacity                           |
|                                         | AC-15: 3 A / 240 VAC; DC-13: 2 A / 24 VDC    |
|                                         | Recommended minimum load                     |
|                                         | 12 V / 10 mA                                 |
|                                         | Pull-in time (typ.)                          |
|                                         | 15 ms                                        |
|                                         | Drop-out time (typ.)                         |
|                                         | 8 ms                                         |
|                                         | Bounce time (typ.)                           |
|                                         | 6 ms                                         |
|                                         | Electrical life (NO; resistive load; 23 °C)  |
|                                         | 10 x 10 <sup>3</sup> switching operations    |
|                                         | Mechanical life                              |
|                                         | 5 x 10 <sup>6</sup> switching operations     |
|                                         | Switching frequency with/without load (max.) |
|                                         | 6 min <sup>-1</sup> / 300 min <sup>-1</sup>  |

| Signaling        |                       |
|------------------|-----------------------|
| Status indicator | Red LED<br>Mechanical |

| Safety and protection                                  |                                                                                                                                                                   |
|--------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Rated Voltage                                          | 250 V                                                                                                                                                             |
| Rated impulse withstand 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                                                                                                                                                           |
| Safety Information                                     | A separator plate (e.g., 209-191) must be used for voltages exceeding 250 V between adjacent relay modules and to comply with 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 |  | 73 mm / 2.874 inches |

| Mechanical data |  |             |
|-----------------|--|-------------|
| Mounting type   |  | DIN-35 rail |

| Material data        |  |                                                                          |
|----------------------|--|--------------------------------------------------------------------------|
| Note (material data) |  | <a href="#">Information on material specifications can be found here</a> |
| Fire load            |  | 0.662 MJ                                                                 |
| Weight               |  | 44.3 g                                                                   |

| Environmental requirements                            |  |                                 |
|-------------------------------------------------------|--|---------------------------------|
| Ambient temperature (operation at U <sub>N</sub> )    |  | -40 ... +70 °C                  |
| Ambient temperature UL (operation at U <sub>N</sub> ) |  | -40 ... +50 °C                  |
| Ambient temperature (storage)                         |  | -40 ... +70 °C                  |
| Processing temperature                                |  | -25 ... +50 °C                  |
| Temperature range of connection cable                 |  | ≥ (T <sub>ambient</sub> + 20 K) |

| Standards and Specifications |  |                                                                |
|------------------------------|--|----------------------------------------------------------------|
| Standards/specifications     |  | EN 61010-2-201<br>EN 61810-1<br>EN 61373<br>UL 508 (max. 10 A) |

| Commercial data       |  |                          |
|-----------------------|--|--------------------------|
| Product Group         |  | 6 (INTERFACE ELECTRONIC) |
| PU (SPU)              |  | 15 (1) pcs               |
| Packaging type        |  | Box                      |
| Country of origin     |  | CN                       |
| GTIN                  |  | 4050821226895            |
| 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 |                        |
|----------------------------------|------------------------|
| RoHS Compliance Status           | Compliant,No Exemption |

Approvals / Certificates

| General approvals                                                                |                |                     | Declarations of conformity and manufacturer's declarations |          |                  |
|----------------------------------------------------------------------------------|----------------|---------------------|------------------------------------------------------------|----------|------------------|
|  |                |                     |                                                            |          |                  |
| Approval                                                                         | Standard       | Certificate Name    | Approval                                                   | Standard | Certificate Name |
| EAC<br>GZO Almaty Standart                                                       | TP TC 004/2011 | EAC CoC 03084       | EU-Declaration of Confor-<br>mity<br>WAGO GmbH & Co. KG    | -        | -                |
| UL<br>Underwriters Laboratories<br>Inc. (ORDINARY LOCATI-<br>ONS)                | UL 508         | E175199 Vol.1 Sec.6 | UK-Declaration of Confor-<br>mity<br>WAGO GmbH & Co. KG    | -        | -                |

Downloads

| Environmental Product Compliance            |                                                                                    |
|---------------------------------------------|------------------------------------------------------------------------------------|
| Compliance Search                           |                                                                                    |
| Environmental Product<br>Compliance 788-541 |  |

Documentation

| Bid Text |            |                  |                                                                                     | Instruction Leaflet                     |                       |                   |                                                                                       |
|----------|------------|------------------|-------------------------------------------------------------------------------------|-----------------------------------------|-----------------------|-------------------|---------------------------------------------------------------------------------------|
| 788-541  | 19.02.2019 | xml<br>4.97 KB   |  | Sockets with Elementa-<br>ry Relay/ SSR | V 1.0.1<br>09.10.2020 | pdf<br>2271.22 KB |  |
| 788-541  | 25.01.2019 | docx<br>16.80 KB |  |                                         |                       |                   |                                                                                       |

CAD/CAE-Data

| CAD data             |                                                                                     | CAE data                     |                                                                                       |
|----------------------|-------------------------------------------------------------------------------------|------------------------------|---------------------------------------------------------------------------------------|
| 2D/3D Models 788-541 |  | EPLAN Data Portal<br>788-541 |  |
|                      |                                                                                     | WSCAD Universe<br>788-541    |  |
|                      |                                                                                     | ZUKEN Portal 788-541         |  |



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



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

1.1.2 Filter module

1.1.2.1 Suppressor module



**Item No.: 788-148**  
Filter module; RC filter element; Nominal voltage: 230 VAC

1.1.3 Indicators

1.1.3.1 Status indication



**Item No.: 788-123**  
Accessories for relay modules; Operation status indicator: red; Nominal operating voltage: 24 VAC

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 device



[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

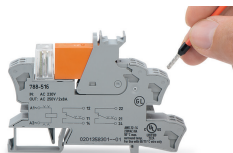


#### Item No.: 210-720

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.