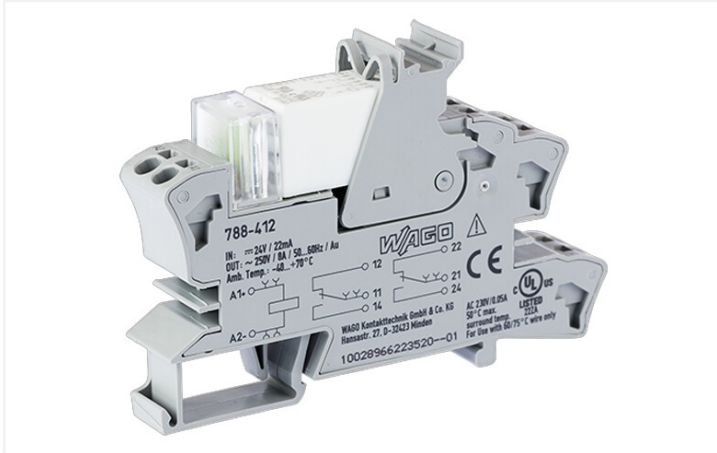


Data Sheet | Item Number: 788-412

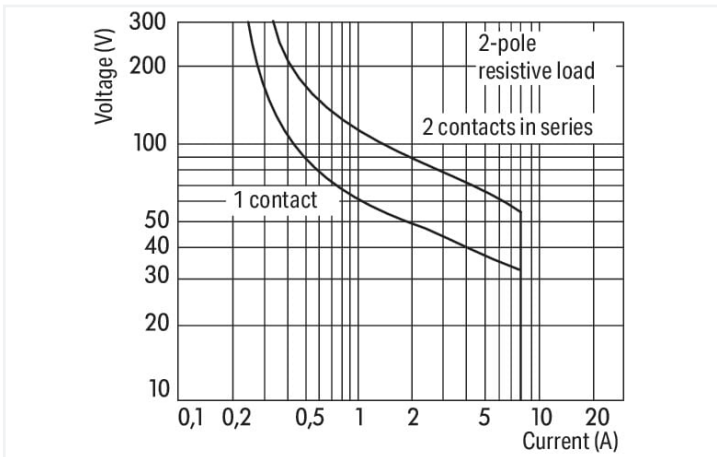
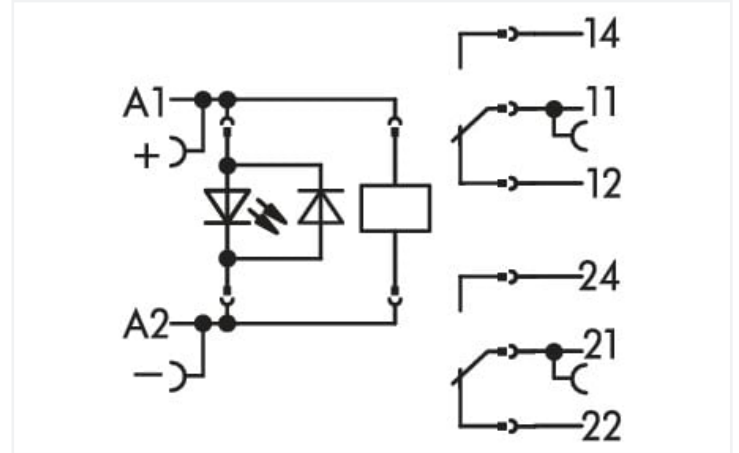
Relay module; Nominal input voltage: 24 VDC; 2 changeover contacts; Limiting continuous current: 8 A; with gold contacts; Red status indicator; Module width: 15 mm; 2,50 mm²; gray



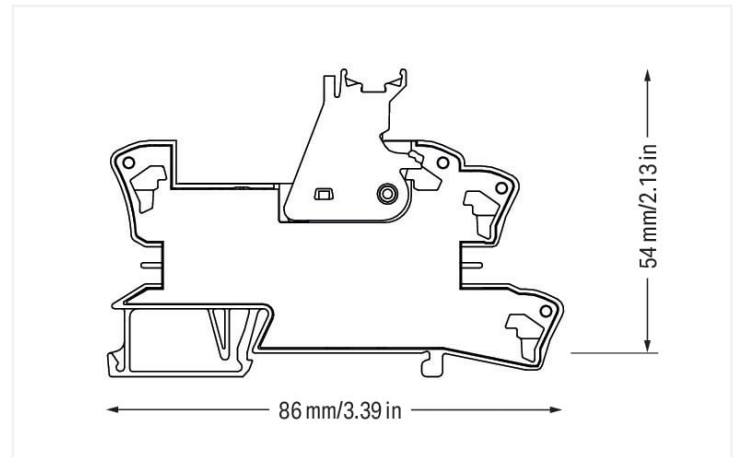
<https://www.wago.com/788-412>



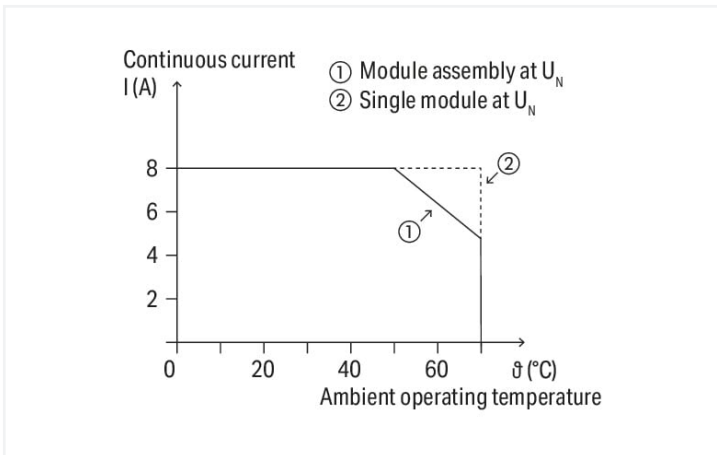
Color: ■ gray



DC load limit curve



Dimensions in mm



Current-carrying capacity curve

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	<ul style="list-style-type: none"> Reinforced insulation between coil and contacts To prevent damaging the gold layer, 30 VDC switching voltages and 50 mA currents must not be exceeded. Higher switching power eventually evaporates the gold layer. The resulting deposits in the housing may reduce service life. 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 24 V
Input voltage range	$\pm 10\%$
Nominal input current at U_N	17 mA

Load circuit

Number of changeover/switchover contacts	2
Contact material (relay)	AgNi + Au
Limiting continuous current	8 A
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	5 V / 2 mA / 50 mW
Pull-in time (typ.)	7 ms
Drop-out time (typ.)	3 ms
Bounce time (typ.)	6 ms
Electrical life (NO; resistive load; 23 °C)	100 x 10 ³ switching operations
Mechanical life	30 x 10 ⁶ switching operations
Switching frequency with/without load (max.)	10 min ⁻¹ / 1200 min ⁻¹

Signaling

Status indicator	Red LED
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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 mm ² / 22 ... 14 AWG
Fine-stranded conductor	0.34 ... 2.5 mm ² / 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
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Material data

Color	gray
Fire load	0.677 MJ
Weight	47.6 g

Environmental requirements

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

Standards and specifications

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

WAGO Basic Relay	788-157
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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	DE
GTIN	4045454352165
Customs tariff number	85364900990

Environmental Product Compliance

RoHS Compliance Status	Compliant, No Exemption
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Approvals / Certificates

General approvals			Declarations of conformity and manufacturer's declarations											
			<table border="1"> <thead> <tr> <th>Approval</th> <th>Standard</th> <th>Certificate Name</th> </tr> </thead> <tbody> <tr> <td>EAC Brjansker Zertifizierungsstelle</td> <td>TP TC 004/2011</td> <td>EAC RU C-DE.AM02. B.00122/19</td> </tr> <tr> <td>UL Underwriters Laboratories Inc. (ORDINARY LOCATIONS)</td> <td>UL 508</td> <td>E175199 Vol.1 Sec.6</td> </tr> </tbody> </table>			Approval	Standard	Certificate Name	EAC Brjansker Zertifizierungsstelle	TP TC 004/2011	EAC RU C-DE.AM02. B.00122/19	UL Underwriters Laboratories Inc. (ORDINARY LOCATIONS)	UL 508	E175199 Vol.1 Sec.6
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Downloads

Environmental Product Compliance	
Compliance Search	
Environmental Product Compliance 788-412	↓

Documentation

Bid Text				Instruction Leaflet			
788-412	19.02.2019	xml 4.94 KB	↓	Sockets with Elementary Relay/ SSR	V 1.0.1 09.10.2020	pdf 2271.22 KB	↓
788-412	25.01.2019	docx 16.82 KB	↓				

CAD/CAE-Data

CAD data		CAE data	
2D/3D Models 788-412	↓	EPLAN Data Portal 788-412	↓
		WSCAD Universe 788-412	↓
		ZUKEN Portal 788-412	↓

1 Compatible Products

1.1 Optional Accessories

1.1.1 Basic relay

1.1.1.1 Basic relay



Item No.: 788-157

Basic relay; Nominal input voltage: 24 VDC; 2 changeover contacts; Limiting continuous current: 8 A; with gold contacts; 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

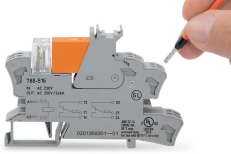


Item No.: 210-720

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

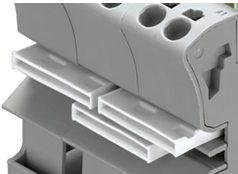
Installation Notes

Conductor termination



Conductor termination

Commoning



Easy commoning using adjacent jumpers

Marking



Marking using WMB Multi markers and group marker carriers.