

Product Overview

#### **Relays and Optocouplers**





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Optocouplers

#### WAGO Relays and Optocouplers

#### Features, Benefits and Applications

Modern equipment design requires multiple components that can meet diverse challenges.

WAGO AUTOMATION provides a broad range of relays and optocouplers to support some of the world's most demanding applications.



- Easy to use, easy to maintain
- Economical to purchase, efficient to use
- Operational reliability
- Maximum machine safety and uptime
- Relays sized to suit any space
- Easy planning and commissioning



#### WAGO relay modules -The convenient interface between electronics and periphery

In modern automation systems, electromechanical relays safely connect process peripherals with electronic control, alarm and monitoring systems. For example, relays perform the following tasks:

- Electrical isolation with high isolation levels between input and output circuits
- Adjustment of differing signal levels
- Signal amplification and/or signal multiplication if varying potentials coexist

## The comprehensive design of modern relays provides applications with the following benefits:

- Immunity to electromagnetic interference and transient voltages
- High, short-term overload capacity on both input and output sides
- Minimal switching loss
- A single module that switches both direct and alternating currents

To perform these tasks and more, WAGO AUTOMATION offers a full range of relay modules ready to support a diverse array of applications. Depending on the task and application requirements, there is a choice of relay modules with different rated voltages, contacts, contact materials, housings and designs. In addition to standard switching relays, bistable relays, timing relays, latching relays and safety relays with force-guided contacts are also available.

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Relays and optocouplers are used everywhere where electrical signals must be transmitted and galvanic isolation, level adjustment or amplification are required. They are suitable for all industrial applications: process and power technology, rail vehicles, shipbuilding, as well as control cabinet applications.

#### Benefits of WAGO relays and optocouplers:

- Easy termination of conductors from 0.34 mm<sup>2</sup> to 2.5 mm<sup>2</sup> (22-12 AWG)
- Optimized for any application
- Wide range of accessories (e.g., adjacent jumpers, marking material)
- Switchable loads from 1 mA to 16 A

### WAGO optocouplers - The modern and powerful alternative

As a link between process peripherals and electronic control, alarm and monitoring systems, optocoupler modules boast the following advantages over electromechanical relays:

- Longer service life no mechanical wear
- High switching frequency due to short switch-on and switch-off times
- Vibration resistance
- No contact bouncing
- "Noiseless" switching
- Low control power requirement

#### WAGO AUTOMATION provides a full range of optocouplers to bring the above benefits to the following tasks:

- Electrical isolation between input and output circuits
- Adjustment of differing signal levels
- Signal amplification

Optocouplers are available with different rated voltages, switching capacities and housing options to suit any application.





#### CAGE CLAMP®

**Vibration-proof – fast – maintenance-free** CAGE CLAMP<sup>®</sup> termination for all conductor types.

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With a large variety of relays and optocouplers, the 859 Series will suit any industrial interface application. The compact, 6 mm-wide housing is ideal for space-restricted control panels. Simple commoning at the control and load side streamlines looping through of common input and output potentials. A robust design, utilizing vibration-proof CAGE-CLAMP<sup>®</sup> Spring Pressure Connection Technology, ensures continuous and uninterrupted operation for any system.

#### **Rail-Mounted Terminal Blocks with Miniature**

#### Switching Relay and Optocoupler – 859 Series

# <image>

#### 859 Series Features/Benefits:

- 6 mm-wide housing for DIN 35-rail mounting
- Front-side jumpers streamline connections
- LED for status signal indication
- Each termination unit carries an integrated test port

#### **Rail-Mounted Terminal Blocks with Miniature** Switching Relay, 859 Series

Description			Item No.	Input Nominal Voltage V <sub>N</sub>	Max. Switching Voltage	Max. Continuous Current		
Relay with I changeover contact			859-302 859-303 859-304 859-305 859-306 859-307 859-308	5 V DC 12 V DC 24 V DC 48 V DC 60 V DC 110 V DC 220 V DC	250 V AC	5 A		
Relay with 1 changeover contact			859-353 859-354 859-355 859-357 859-358	12 V AC/DC 24 V AC/DC 48 V AC/DC 115 V AC/DC 230 V AC/DC	250 V AC	5 A		
Relay with <b>1 changeover contact,</b> with gold contacts	AND.A.	14	859-314	24 V DC	36 V DC *	50 mA*		
Relay with <b>1 changeover contact,</b> with gold contacts with an extended input voltage and temperature range			859-392 859-386 859-384 859-317	24 V DC 36 V DC 48 V DC 115 V DC	36 V DC *	50 mA*		
Relay with <b>1 changeover contact,</b> with gold contacts				859-359	230 V AC	36 V DC *	50 mA*	
Relay with <b>1 changeover contact,</b> with gold contacts			859-360	115 V AC	36 V DC *	50 mA*		
Relay with <b>1 changeover contact,</b> with gold contacts				859-318	220 V DC	36 V DC *	50 mA*	
Relay with 1 changeover contact			859-367	115 V AC	250 V AC	5 A		
Relay with <b>1 changeover contact,</b> with specified turn-on and turn-off threshold			859-368	230 V AC	115 V AC	5 A		
Relay with <b>I changeover contact,</b> with an extended input voltage and temperature range			859-390	24 V DC	250 V AC	3 A		
Relay with 1 changeover contact, with an extended input voltage and temperature range			859-391	110 V DC	250 V AC	3 A		
Relay with <b>1 changeover contact,</b> with an extended input voltage and temperature range			859-398 859-394 859-397 859-393 859-399	24 V DC 36 V DC 48 V DC 72 V DC 110 V DC	250 V AC	3 A		

\* In order to prevent the gold layer from being damaged, these values shall not be exceeded. Higher switching power leads to evaporation of the gold layer. The resulting deposits in the housing may cause sparkovers between the coil and the contact.

#### Rail-Mounted Terminal Blocks with Optocoupler, 859 Series

Description		Item No.	Input Nominal Voltage V <sub>N</sub>	Output Voltage Range	Max. Continuous Current
Optocoupler with an extended output voltage and temperature range for use in railway traffic		859-793	5 V DC	3 V 60 V DC	100 mA
Optocoupler with an extended output voltage and temperature range for use in railway traffic		859-791 859-794	24 V DC 24 V DC	7 V 60 V DC 9 V 60 V DC	100 mA 100 mA
Optocoupler		859-796	24 V DC	3 V 30 V DC	100 mA
Optocoupler		859-795	5 V DC	3 V 30 V DC	100 mA
Optocoupler, negative switching Power optocoupler		859-720	24 V DC	10 V 30 V DC	3 A
Optocoupler, power optocoupler		859-730	24 V DC	3 V 30 V DC	3 A
Optocoupler, power optocoupler		859-740	24 V DC	3 V 30 V DC	3 A
Optocoupler, power optocoupler		859-744	12 V 48 V DC	3 V 53 V DC	4 A
Optocoupler, positive switching, increased input frequency up to 100 Hz, input voltage up to 270 V AC		859-772	230 V AC	20 V 30 V DC	500 mA
Optocoupler, negative switching		859-712	24 V DC	20 V 30 V DC	500 mA
Optocoupler, negative switching		859-702	5 V DC	20 V 30 V DC	500 mA
Optocoupler, negative switching		859-708	24 V DC	20 V 30 V DC	500 mA
Optocoupler, negative switching		859-706	24 V DC	4 V 6.25 V DC	500 mA
Optocoupler, positive switching		859-752	5 V DC	20 V 30 V DC	500 mA
Optocoupler, positive switching		859-758	24 V DC	20 V 30 V DC	500 mA
Optocoupler, positive switching	Ŷ <b></b> ,₂zv	859-756	24 V DC	4 V 6.25 V DC	500 mA
Optocoupler		859-902	5 V DC	24 V 260 V DC	500 mA

#### CAGE CLAMP<sup>®</sup>S

**Vibration-proof – fast – maintenance-free** CAGE CLAMP<sup>®</sup>S termination for all conductor types.

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#### 857 Series Features/Benefits:

- Pluggable relays and optocouplers
- Industry's most compact just 6.0 mm wide
- Potential commoning on every level
- Integrated LED for status indication
- Input voltage available in 5-230 V AC/DC variants
- Up to 8 A switching current

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WAGO 857 Series relay and optocoupler modules are supplied in 6 mm-wide housing and share a common profile. The modules feature a single, flexible in-line jumper system (e.g., for supply voltages), eliminating discrete wiring.

The pluggable relays can be replaced quickly and easily when needed.

#### JUMPFLEX<sup>®</sup>, Sockets with Switching Relay and

#### Optocoupler – 857 Series

An optional interface adapter plugs on the input or output side, combining eight modules and connecting them via flat cable.

# Available interface adapter

#### Sockets with Miniature Switching Relay, 857 Series

Description	Description			Input Nominal Voltage V <sub>N</sub>	Max. Switching Voltage	Max. Continuous Current
	╝ <del>┙┙╹╹╹</del> ┖╵ ╝ <del>┙╹╹╹</del> ┖╵		857-303 857-304 857-305 857-306 857-307 857-308	12 V DC 24 V DC 48 V DC 60 V DC 110 V DC 220 V DC	250 V AC	6 A
Relay with <b>1 changeover contact</b>		۱۳۳	857-354 857-357 857-358	24 V AC/DC 115 V AC/DC 230 V AC/DC	250 V AC	6 A
			857-304/008-000 857-358/008-000	24 V DC 230 V AC/DC	250 V AC	8 A
Relay with <b>1 changeover contact,</b> with gold contacts	ER TH		857-314 857-317 857-318	24 V DC 110 V DC 220 V DC	36 V DC* / (250 V AC/DC)	50 mA* / (6 A )
			857-364 857-367 857-368	24 V AC/DC 115 V AC/DC 230 V AC/DC	36 V DC* / (250 V AC/DC)	50 mA* / (6 A )

\* In order to prevent the gold layer from being damaged, these values shall not be exceeded. (In case of damaged gold layer, the values in parens apply). Higher switching power leads to evaporation of the gold layer.

The resulting deposits in the housing may cause sparkovers between the coil and the contact.

#### 8-Channel Interface Adapter for System Wiring

Description	Item No.	Nominal Voltage	Current Carrying Capa- city per Channel	Max. Total Current		
8-channel <b>adapter</b> with 14-pin flat cable connector, positive switching input**	1		857-981	24 V DC	1 A	3 A
8-channel <b>adapter</b> with 14-pin flat cable connector, positive switching output**	t-channel <b>adapter</b> vith 14-pin flat cable onnector, rositive switching output**		857-982	24 V DC	1 A	3 A
8-channel <b>adapter</b> with D-sub male connector, Input with 15-pin flat cable connector, positive switching**	and the second		857-986	24 V DC	1 A	3 A

\*\* For use on the 857 Series socket's coil side

\*\*\* For use on the 857 Series socket's contact side

#### Sockets with Solid State Relay, 857 Series

	Description			ltem No.	Input Nominal Voltage V <sub>N</sub>	Output Voltage Range	Max. Continuous Current
			°⊐¥⊊ °⊐¥⊊ °⊐ ₽ ₽ ₽	857-704	24 V DC	0 V 48 V DC	100 mA
	Solid state relay			857-707	115 V AC/DC	0 V 48 V DC	100 mA
				857-708	230 V AC/DC	0 V 48 V DC	100 mA
			857-714	24 V DC	24 V 240 V DC	1 A	
	Solid state relay			857-717	115 V AC/DC	24 V 240 V DC	1 A
				857-718	230 V AC/DC	24 V 240 V DC	1 A
				857-724	24 V DC	0 V 24 V DC	2 A
Solid state relay			857-727	115 V AC/DC	0 V 24 V DC	2 A	
			857-728	230 V AC/DC	0 V 24 V DC	2 A	

#### 788 Series Features/Benefits:

- Relays with 1 or 2 changeover contacts up to 16 A and 250 V of switching power
- DIN-rail mount modules
- WMB marking
- Pluggable switching status indicator (LED) with integrated recovery diode
- Integrated test ports easy troubleshooting

#### CAGE CLAMP<sup>®</sup>S

#### Vibration-proof – fast – maintenance-free

CAGE CLAMP®S termination for all conductor types.

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WAGO 788 Series Pluggable Relay Modules are an excellent platform for industrial and process automation switching relay applications. Featuring plug-and-play, miniature switching relays (1 or 2 changeover contacts), 788 Series relays are ultracompact, fitting where other relays do not.

#### Sockets with Switching Relay and Optocoupler -

#### 788 Series

A compact design is just one of the 788 Series' unique and highly beneficial features. A robust, easy-to-use lever lifts/ejects relays, simplifying replacement – even if relay modules are sideby-side. For flexibility and the reduction of part numbers, the 788 Series can be ordered as: a fully equipped relay module, a relay and LED for switching status indication, or as individual components.

#### Sockets with Miniature Switching Relay, 788 Series

Description			ltem No.	Input Nominal Voltage V <sub>N</sub>	Max. Switching Voltage	Max. Continuous Current
Relay with <b>1 changeover contact</b> and status indication (15 mm high)	1		788-303 788-304 788-305 788-306 788-307	12 V DC 24 V DC 48 V DC 60 V DC 110 V DC	250 V AC	16 A
Relay with <b>2 changeover contacts</b> and status indication (15 mm high)	-		788-311 788-312 788-313 788-314 788-315	12 V DC 24 V DC 48 V DC 60 V DC 110 V DC	250 V AC	2 x 8 A
Relay with <b>1 changeover contact</b> and status indication (15 mm high)			788-506 788-507 788-508	24 V AC 115 V AC 230 V AC	250 V AC	16 A
Relay with <b>2 changeover contacts</b> and status indication (15 mm high)		$\begin{array}{c} A1 \\ - \\ - \\ A2 \\ - \\ - \\ - \\ - \\ - \\ - \\ - \\ - \\ - \\ $	788-512 788-515 788-516	24 V AC 115 V AC 230 V AC	250 V AC	2 x 8 A
Relay with <b>1 changeover</b> <b>contact</b> , with gold contacts and status indication (15 mm high)	and the second		788-404	24 V DC	36 V DC*	50 mA*
Relay with <b>2 changeover</b> <b>contacts</b> , with gold contacts and status indication (15 mm high)			788-412	24 V DC	36 V DC*	2 x 50 mA*
Relay with 1 changeover contact, with gold contacts and status indication (15 mm high)	10.123	A) - ) - ) - ) - ) - ) - ) - ) -	788-607 788-608	115 V AC 230 V AC	36 V DC*	50 mA*
Relay with <b>2 changeover</b> <b>contacts</b> , with gold contacts and status indication (15 mm high)	-	$\begin{array}{c} A1 & \hline \\ & - \\ & $	788-615 788-616	115 V AC 230 V AC	36 V DC*	2 x 50 mA*
Relay with <b>1 changeover contact</b> and status indication (25 mm high)	d'a		788-324	24 V DC	250 V AC	16 A
Relay with <b>2 changeover contacts</b> and status indication (25 mm high)			788-334	24 V DC	250 V AC	2 x 8 A
Relay with <b>1 changeover contact</b> and status indication (25 mm high)	d'a	$A^{1} \xrightarrow{1} \qquad \qquad$	788-528	230 V AC	250 V AC	16 A
Relay with <b>2 changeover contacts</b> and status indication (25 mm high)		$\begin{array}{c} A1 \\ \hline \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ $	788-538	230 V AC	250 V AC	2 x 8 A

\* In order to prevent the gold layer from being damaged, these values shall not be exceeded. Higher switching power leads to evaporation of the gold layer. The resulting deposits in the housing may cause sparkovers between the coil and the contact.

#### Sockets with Miniature Switching Relay, 788 Series

Description	escription			Input Nominal Voltage V <sub>N</sub>	Max. Switching Voltage	Max. Continuous Current
Relay with <b>1 changeover contact</b> and status indication (15 mm high)	1		788-354	24 V DC	250 V AC	16 A
Relay with <b>1 make contact</b> and status indication (25 mm high)			788-355	24 V DC	250 V AC	16 A
Safety relay SR2M ( <b>2 changeover contacts</b> ), with force-guided contacts and status indication	1		788-384	24 V DC	250 V AC	6 A
Relay with <b>1 changeover</b> <b>contact</b> , manual operation and status indication (25 mm high)	. The		788-374	24 V DC	250 V AC	16 A
Relay with <b>2</b> changeover contacts, manual operation and status indication (25 mm high)	and the second s		788-375	24 V DC	250 V AC	8 A

#### Sockets with Optocoupler, 788 Series

Description	ltem No.	Input Nominal Voltage V <sub>N</sub>	Output Voltage Range	Max. Continuous Current		
Optocoupler			788-700	24 V DC	0 V 24 V DC	3.5 A
Optocoupler			788-701	24 V DC	0 V 24 V DC	5 A
Optocoupler	1		788-720	24 V DC	24 V 240 V DC	1 A

#### 858 Series Features/Benefits:

- Relays with 5 A power contacts or 5 µ gold contacts for dry switching circuits
- Integrated LED indicator, mechanical relay status and manual operation
- Dual conductor entries with CAGE CLAMP®S COMPACT for all connections
- Compatible with industrial relays utilizing standard pin spacing
- Optional 858-402 push-in jumpers common two adjacent relays on the coil side

#### CAGE CLAMP<sup>®</sup>S

#### Vibration-proof – fast – maintenance-free

CAGE CLAMP®S termination for all conductor types.

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WAGO DIN-rail mount 858 Series relay sockets are designed for conventional industrial relays with standard pin spacing. The sockets carry 33.5 to 35.5 mm-high relays equipped with 2 or 4 changeover contacts. All socket contacts feature two conductor entries at each CAGE CLAMP®S COMPACT connection point for either 2 x 0.34 mm<sup>2</sup> (22 AWG) to 1.5 mm<sup>2</sup> (16 AWG) or 1 x 2.5 mm<sup>2</sup> (12 AWG) cross-section. CAGE CLAMP®S COMPACT Spring Pressure Connection Technology provides simple, push-in termination of solid or ferruled conductors 0.5 mm<sup>2</sup> (20 AWG) and larger.

#### Sockets with Industrial Relay -

#### 858 Series

Speedy Socket Service: rapidly replace relays without removing conductors.

#### Sockets with Industrial Relay, 858 Series

Description	Description			Input Nominal Voltage V <sub>N</sub>	Max. Switching Voltage	Max. Continuous Current		
Relay with <b>4 changeover contacts</b>	ALL A	<b>.</b>		858-304	24 V DC	250 V AC / 30 V DC	5 A	
Relay with <b>4 changeover contacts,</b> with gold contacts			858-314	24 V DC	30 V DC *	50 mA*	-	
Relay with <b>4 changeover contacts</b>	ALLEY	A1 A2 A2 A2 A2 A2 A2 A2 A2 A2 A2	858-507 858-508	115 V AC 230 V AC	250 V AC / 30 V DC	5 A		
Relay with <b>4 changeover contacts,</b> with gold contacts			858-517 858-518	115 V AC 230 V AC	30 V DC *	50 mA*		
Relay with <b>4 changeover contacts,</b> with an extended input voltage and temperature range			858-354	24 V DC	250 V AC / 30 V DC	5 A		

\* In order to prevent the gold layer from being damaged, these values shall not be exceeded. Higher switching power leads to evaporation of the gold layer. The resulting deposits in the housing may cause sparkovers between the coil and the contact.



#### 286 Series Features/Benefits:

- Easy termination of conductors from 0.08 mm<sup>2</sup> to 2.5 mm<sup>2</sup> (28 -12 AWG)
- Space-saving combination of electrical and electronic functions on a rail-mounted terminal block
- Module removal provides fast and safe separation between logic and control power



#### CAGE CLAMP®

Vibration-proof – fast – maintenance-free

CAGE  $\mathsf{CLAMP}^{\circledast}$  termination for all conductor types.



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Pluggable modules for carrier terminal blocksmaximize flexibility while simplifying maintenance:1. The DIN-rail mount carrier block is wiredjust like a standard terminal block.2. Modules are then plugged into the terminal block after wiring.

3. For ease of maintenance, the modules are replaced

in one step without affecting terminal block wiring.

#### Pluggable Relay and Optocoupler Modules for

#### Carrier Terminal Blocks – 286 Series

This intelligent design also saves space and reduces wiring costs. A comprehensive range of function modules is available to complement these optocoupler and relay modules. The modules seamlessly integrate any required function into control cabinets via pluggable modules.

#### Pluggable Modules – Relays, 286 Series

De	escription		Item No.	Input Nominal Voltage V <sub>N</sub>	Max. Switching Voltage	Max. Continuous Current	
Rel 1 m	lay with <b>make contact</b>	The second se	286-364 286-365 286-366 286-564 286-566 286-567	24 V DC 48 V DC 60 V DC 24 V AC 115 V AC 230 V AC	DC 30 V / AC 250 V	5 A	
Rel 1 E	lay with <b>break contact</b>	Ţ	286-368 286-369 286-370 286-568	24 V DC 48 V DC 60 V DC 24 V AC	250 V DC / 250 V AC	5 A	
Rel 1 c	lay with <b>changeover contact</b>	Ţ	286-302 286-303 286-304 286-305 286-306 286-307 286-308	5/6 V DC 12 V DC 24 V DC 48 V DC 60 V DC 115 V DC 220 V DC	300 V DC / 250 V AC	7 A	
Rel 1 c	lay with <b>changeover contact</b>		286-502 286-503 286-504 286-505 286-506 286-507 286-508	5/6 V AC/DC 12 V AC/DC 24 V AC/DC 48 V AC/DC 60 V AC/DC 115 V AC 230 V AC	300 V DC / 250 V AC	7 A	
Rel 1 c wit	lay with <b>changeover contact,</b> th gold contacts	ę	286-394 286-395 286-594	24 V DC 48 V DC 24 V AC/DC	36 V DC	1 A	
Rel 2 c	lay with <b>changeover contacts</b>	ę	286-310 286-311 286-312 286-313 286-314 286-315 286-316	5/6 V DC 12 V DC 24 V DC 48 V DC 60 V DC 115 V DC 220 V DC	300 V DC / 250 V AC	7 A	
Rel 2 c	lay with <b>changeover contacts</b>	Ę	286-510 286-511 286-512 286-513 286-513 286-514 286-515 286-516	5/6 V AC 12 V AC 24 V AC 48 V AC 60 V AC 115 V AC 230 V AC	300 V DC / 250 V AC	7 A	
Rel 1 L 1 n	lay with break and make contact	E.	286-318 286-319 286-320 286-321 286-322 286-324 286-520	5/6 V DC 12 V DC 24 V DC 48 V DC 60 V DC 220 V DC 24 V AC	250 V DC / 380 V AC	6 A	
Rel 2 m	lay with <b>make contacts</b>	E.	286-326 286-327 286-328 286-329 286-330 286-332	5/6 V DC 12 V DC 24 V DC 48 V DC 60 V DC 220 V DC	250 V DC / 380 V AC	6 A	

Description		Item No.	Input Nominal Voltage V <sub>N</sub>	Max. Switching Vol- tage	Max. Continuous Current
Relay with 2 break contacts and 2 make contacts	ę	286-334 286-335 286-336 286-337 286-338 286-339 286-536 286-540	5/6 V DC 12 V DC 24 V DC 48 V DC 60 V DC 115 V DC 24 V AC 230 V AC	250 V DC / 250 V AC	5 A
Relay with 1 break contact and 3 make contacts	EF	286-342 286-343 286-344 286-345 286-346 286-347 286-544 286-547 286-548	5/6 V DC 12 V DC 24 V DC 48 V DC 60 V DC 115 V DC 24 V AC 115 V AC 230 V AC	250 V DC / 250 V AC	5 A
Relay with <b>4 make contacts</b>	Ţ	286-350 286-351 286-352 286-353 286-354 286-355 286-552 286-555 286-555	5/6 V DC 12 V DC 24 V DC 48 V DC 60 V DC 115 V DC 24 V AC 115 V AC 230 V AC	250 V DC / 250 V AC	5 A
Relay with <b>4 changeover contacts</b>		286-375 286-578 286-579	24 V DC 110/120 V AC 230 V AC	60 V DC / 250 V AC	2 A DC / 4 A AC
Relay with <b>1 make contact,</b> for higher DC loads	ę	286-376	24 V DC	250 V DC / 250 V AC	5 A
Relay with <b>2 changeover contacts,</b> with gold contacts	Ţ	286-384	24 V DC	36 V DC*	50 mA*
Relay with <b>1 changeover contact,</b> with specified switching threshold	Ţ	286-904	230 V AC	250 V DC / 380 V AC	5 A
Relay with <b>1 break and</b> <b>1 make contact,</b> minimal control power ≥ 7 mW, trigger voltage	Ţ	286-906	24 V DC	250 V DC / 380 V AC	6 A
Latching relay with 1 break and 1 make contact	Ţ	286-571 286-570	24 V DC 230 V AC	30 V DC / 250 V AC	5 A
Bistable relay with <b>1 changeover contact,</b> positive switching / negative switching	Ţ	286-380 286-381	24 V DC 24 V DC	250 V DC / 250 V AC	6 A

#### Pluggable Modules – Relays, 286 Series

Description			ltem No.	Input Nominal Voltage V <sub>N</sub>	Max. Switching Voltage	Max. Continuous Current
Relay with <b>1 make contact</b> , with an extended input voltage and temperature range	-	Λ' <b>−Þi≸</b> − #C→−, 2 <sup>2</sup> −−,↓ – <sub>14</sub>	286-364/004-000	24 V DC	250 V AC	3 A
Relay with <b>1 break contact,</b> with an extended input voltage and temperature range	ę	<sup>4</sup> -₩ <sup>4</sup> μ- #Ο{ <sup>2</sup>	286-368/ 004-000	24 V DC	250 V AC	3 A
Relay with <b>1 changeover contact,</b> with an extended input voltage and temperature range	E.		286-304/ 004-000 286-307/ 004-000	24 V DC 110 V DC	250 V AC/DC	3 A
Relay with 1 changeover contact, with gold contacts with an extended input voltage and temperature range	ę		286-394/ 004-000	24 V DC	36 V DC*	50 mA*
Relay with <b>2 changeover</b> <b>contacts</b> , with an extended input voltage and temperature range	Ę		286-312/ 004-000	24 V DC	250 V AC / 200 V DC	4 A
Relay with 1 break and 1 make contact, with an extended input voltage and temperature range	and the second		286-320/ 004-000	24 V DC	250 V AC / 200 V DC	4 A
Relay with <b>2 make</b> <b>contacts</b> , with an extended input voltage and temperature range	Ę		286-328/ 004-000	24 V DC	250 V AC / 200 V DC	4 A
Relay with <b>2 break con- tacts and 2 make contacts</b> with an extended input voltage and temperature range	ę		286-336/ 001-000	24 V DC	250 V AC / 200 V DC	4 A
Relay with 1 break contact and 3 make contacts with an extended input voltage and temperature range	ę		286-344/ 004-000	24 V DC	250 V AC / 200 V DC	4 A
Relay with <b>4 make con- tacts</b> , with an extended input voltage and temperature range	ę		286-352/ 004-000	24 V DC	250 V AC / 30 V DC	4 A
Relay with 1 break and 1 make contact, with an extended input voltage and temperature range	Ţ		286-906/ 004-000	24 V DC	250 V AC/DC	3 A

#### Pluggable Modules – Optocouplers, 286 Series

Description		ltem No.	Input Nominal Voltage V <sub>N</sub>	Output Voltage Range	Max. Continuous Current	
Optocoupler, negative switching	ST.	286-700 286-701 286-702	24 V DC	5 V DC (3 V 6 V DC) 15 V DC (10 V 20 V DC) 24 V DC (20 V 30 V DC)	500 mA	
Optocoupler, positive switching	5-	286-750 286-751 286-752	5 V DC (3 V 6 V DC           24 V DC           15 V DC (10 V 20 V           24 V DC (20 V 30 V		500 mA	
Optocoupler, negative switching	55.5	286-704 286-706 286-708	230 V AC	5 V DC (3.5 V 7 V DC) 15 V DC (10 V 20 V DC) 24 V DC (20 V 30 V DC)	500 mA	
Optocoupler, positive switching	4	286-754 286-756 286-758	230 V AC	5 V DC (3.5 V 7 V DC) 15 V DC (10 V 20 V DC) 24 V DC (20 V 30 V DC)	500 mA	
Optocoupler, negative switching	SPACE	286-720	24 V DC	15 V 40 V DC	2 A	
Optocoupler, negative switching	1	286-721	24 V DC	15 V 40 V DC	5 A	
Optocoupler, positive switching	10-10	286-752/ 002-000	5 V DC	20 V 30 V DC	500 mA	
Optocoupler, positive switching	4	286-723	24 V DC	20 V 30 V DC	4 A	
Optocoupler, negative switching	The second se	286-726 286-728 286-730	5 V DC 12 V DC 24 V DC	99 V 121 V DC	1.6 A	
Optocoupler	The second secon	286-732 286-733 286-734	5 V DC 12 V DC 24 V DC	24 V 280 V AC	1 A	
Optocoupler, negative switching	1750	286-725	10 V 30 V AC/DC	20 V 30 V DC	500 mA	
Optocoupler	Y	286-791	24 V DC	20 V 60 V DC	100 mA	
Optocoupler	-	286-794	24 V DC	20 V 60 V DC	100 mA	
Double optocoupler	the second second	286-792	2 x 24 V DC	2 x 20 V 30 V DC	2 x 250 mA	
Optocoupler with 2 inverted outputs	(The second seco	286-790	24 V DC	20 V 30 V DC	500 mA	
Optocoupler with bridge plug for programming the output	C-	286-938	24 V DC	10 V 30 V DC	300 mA (800 mA max. 30 s)	



#### CAGE CLAMP®

**Vibration-proof – fast – maintenance-free** CAGE CLAMP<sup>®</sup> termination for all conductor types.

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Equipped with relay and PLC interface modules, WAGO DIN-rail mount carriers provide fast and easy peripheral signal connections.

The fully wired modules - each with up to 16 high-performance relay outputs - provide direct, in-the-field switching of actuators and other coupling elements.

To extend product life and increase machine uptime, each carries integrated recovery and reverse voltage protection diodes.

#### **Mounting Carriers with Miniature**

#### Switching Relay – 287, 288 Series



#### 287, 288 Series Features/Benefits:

- Modules with up to 16 relay functions
- LED indicator, recovery and reverse voltage protection diodes
- Pluggable and easily replaceable relays
- Easy termination of conductors from 0.08 mm<sup>2</sup> to 2.5 mm<sup>2</sup> (28 -12 AWG)

# Mounting Carriers with Miniature Switching Relay, 287, 288 Series

Description		Item No.	Input Nominal Voltage V <sub>N</sub>	Max. Switching Voltage	Max. Continuous Current
Relay with <b>1 make contact,</b> relay pre-soldered onto mounting carrier	<b>(</b> )	288-364 288-564 288-565 288-567	24 V DC 24 V AC/DC 48 V AC/DC 115 V AC/DC	250 V DC / 250 V AC	5 A
Relay with <b>1 break contact,</b> relay pre-soldered onto mounting carrier		288-368 288-568	24 V DC 24 V AC/DC	250 V DC / 250 V AC	5 A
Relay with <b>1 changeover contact,</b> relay pre-soldered onto mounting carrier, with connectors		288-554	24 V AC/DC	250 V DC / 250 V AC	5 A
Relay with 1 changeover contact, relay pre-soldered onto mounting carrier		288-304 288-504 288-508	24 V DC 24 V AC/DC 230 V AC	300 V DC / 250 V AC	6 A
Relay with <b>2 changeover</b> <b>contacts</b> , relay pre-soldered onto mounting carrier		288-312 288-512	24 V DC 24 V AC/DC	250 V DC / 250 V AC	6 A
2 relays with <b>1 changeover</b> <b>contact</b> each, relays pre- soldered onto mounting carrier		288-758 288-761 288-762	24 V AC/DC 115 V AC/DC 230 V AC	300 V DC / 250 V AC	6 A
4 relays with <b>1 changeover</b> <b>contact</b> each, pluggable relays pre-installed into mounting carrier		287-774	24 V DC	300 V DC / 250 V AC	6 A
8 relays with <b>1 changeover</b> <b>contact</b> each, relays pre-soldered onto mounting carrier	QUAR .	287-804 287-814	24 V DC 24 V AC/DC	250 V DC / 250 V AC	6 A
8 relays with 1 changeover contact each, pluggable relays pre-installed into mounting carrier	ų.	287-824 287-834	24 V DC 24 V AC/DC	300 V DC / 250 V AC	6 A
16 relays with <b>1 changeover contact</b> each, pluggable relays pre-installed into mounting carrier	(and a	287-853 287-854	12 V DC 24 V DC	250 V DC / 250 V AC	6 A

Description			Item No.	Input Nominal Voltage V <sub>N</sub>	Max. Switching Voltage	Max. Continuous Current	
Relay with <b>1 make contact</b> , relay pre-soldered onto mounting carrier, designed for switching high inrush current loads (e.g., filament lamp loads)			288-320	24 V DC	440 V AC	16 A	
4 relays with <b>1 make</b> <b>contact</b> , relays pre-soldered onto mounting carrier, designed for switching high inrush current loads (e.g., filament lamp loads)	<b>\$</b>	。 ◆ 4 日 1 1 1 1 1 1 1 1 1 1 1 1 1	287-475	24 V DC	440 V AC	16 A	
4 relays with 1 make contact each, relays pre-soldered onto mounting carrier		۵ ۵ ۵ ۵ ۵ ۵ ۵ ۵ ۵ ۵ ۵ ۵ ۵ ۵ ۵ ۵ ۵ ۵ ۵	287-474	24 V DC	250 V DC / 250 V AC	16 A	
Bistable relay with <b>1 changeover contact,</b> relay pre-soldered onto mounting carrier	Ŷ		288-380	24 V DC	300 V DC / 250 V AC	6 A	
Relay with <b>2 changeover contacts</b> , with force-guided contacts, relay pre-soldered onto mounting carrier			288-437	24 V DC	380 V DC	5 A	
2 safety relays, Hengstler H-462 type, with <b>3 make contacts and</b> <b>1 break contact</b> , pluggable relays pre-installed into mounting carrier			288-435	24 V DC	300 V DC / 230 V AC	6 A	
Safety relay, SDS SF 4 type, with 4 break contacts and 4 make contacts, 1 module, relay pre-soldered onto mounting carrier			288-412 288-413 288-414 288-415 288-416 288-418	5 V DC 12 V DC 24 V AC/DC 48 V AC/DC 60 V AC/DC 230 V AC/DC	250 V AC	6 A	
Safety relay, SDS SF 4 type, with 4 break contacts and 4 make contacts, 2 modules, relay pre-soldered onto mounting carrier	T.	(100 - 00 - 00 100 - 00 - 00 100 -	288-422 288-423 288-424 288-425 288-425 288-426 288-428	5 V DC 12 V DC 24 V AC/DC 48 V AC/DC 60 V AC/DC 230 V AC	250 V AC	6 A	



#### CAGE CLAMP®

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WAGO 789 Series switching relays serve a wide variety of applications, from basic lighting control – homes, hotels and commercial structures – to comprehensive industrial control cabinets. Just 17.5 mm wide, the compact DIN-rail mount enclosure is ideal for distribution boards and meter cabinets.

Available with up to four make contacts (with or without manual operation), 789 Series relay modules are ready to suit an increasingly diverse range of applications.

#### **Relay Modules in DIN-Rail Mountable**

#### Enclosure – 789 Series

#### 789 Series Features/Benefits:

- Available with up to 2 break contacts and 2 make contacts, or 4 make contacts in a compact 17.5 mm enclosure
- Commoning on each level via push-in jumpers
- Marking via rail-mount terminal block accessories
- Clearly identified connection points
- LED indicator for switching status

#### Relay Modules in DIN-Rail Mountable Enclosure, 789 Series

Description			Item No.	Input Nominal Voltage V <sub>N</sub>	Max. Switching Voltage	Max. Continuous Current
Relay with <b>1 changeover contact</b>	3. 40		789-304	24 V DC	250 V AC/DC	12 A
Relay with 1 changeover contact	HE man		789-504 789-508	24 V AC/DC 230 V AC	250 V AC/DC	12 A
Relay with <b>2 changeover contacts</b>	at setty	$\begin{array}{c} A1 \\ + \\ + \\ A2 \\ A2 \\ A2 \\ - \\ - \\ - \\ - \\ - \\ - \\ - \\ - \\ - \\ $	789-312 789-313 789-315	24 V DC 48 V DC 110 V DC	250 V AC/DC	8 A
Relay with <b>2 changeover contacts</b>	R. and	$\begin{array}{c} A_1 \\ A_2 \\ A_2 \\ A_2 \\ A_2 \\ A_2 \\ A_2 \end{array} \begin{array}{c} 1 \\ A_1 \\ A_2 \\ A_2 \\ A_2 \\ A_2 \end{array} \begin{array}{c} 1 \\ A_1 \\ A_2 \\ A_1 \\ A_1 \\ A_1 \\ A_2 \\ A_1 \\ A_1 \\ A_1 \\ A_2 \\ A_1 \\$	789-512 789-515 789-516	24 V AC/DC 115 V AC 230 V AC	250 V AC/DC	8 A
Relay with 2 break contacts, 2 make contacts	BA A A A	A1 A1 A1 A2 A2 A2 A2 A2 A2 A2 A2	789-336	24 V DC	250 V AC / 30 V DC	4 A AC / 3 A DC
Relay with 2 break contacts, 2 make contacts		A1 A2 A2 A2 A2 A2 A2 A2 A2 A2 A2	789-535 789-536	12 V AC/DC 24 V AC/DC	250 V AC / 30 V DC	4 A AC / 3 A DC
Relay with <b>4 make contacts</b>	ar may	A1 A1 A2 A2 A2 A2 A2 A2 A2 A2	789-352	24 V DC	250 V AC / 30 V DC	4 A AC / 3 A DC
Relay with <b>4 make contacts</b>	H. and	142434444 A1 A2 H1 H2 H2 H2 H2 H2 H2 H2 H2 H2 H2	789-551 789-552	12 V AC/DC 24 V AC/DC	250 V AC / 30 V DC	4 A AC / 3 A DC
Latching relay with 1 make contact	The second		789-571	24 V DC	400 V AC	16 A
Latching relay with 1 make contact	1ª march		789-570	230 V AC	400 V AC	16 A
Relay with 1 make contact, Manual/OFF/Auto switch	R A AN	A - Atsmotik 0 - OF 1 - Manual PA -2ero 4-3	789-323	24 V DC	250 V AC	16 A



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