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## 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.


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 $0.34 \mathrm{~mm}^{2}$ to $2.5 \mathrm{~mm}^{2}$ (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


## CAGE CLAMP ${ }^{\circ}$

Vibration-proof - fast - maintenance-free
CAGE CLAMP ${ }^{\circledR}$ termination for all conductor types.


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 ${ }^{\circledR}$ Spring Pressure Connection Technology, ensures continuous and uninterrupted operation for any system.

## 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 $\mathbf{V}_{\mathrm{N}}$ | Max. Switching Voltage | Max. Continuous Current |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Relay with <br> 1 changeover contact |  |  | $\begin{aligned} & 859-302 \\ & 859-303 \\ & 859-304 \\ & 859-305 \\ & 859-306 \\ & 859-307 \\ & 859-308 \end{aligned}$ | $\begin{gathered} \hline 5 \mathrm{~V} D C \\ 12 \mathrm{~V} D C \\ 24 \mathrm{~V} D C \\ 48 \mathrm{VDC} \\ 60 \mathrm{VDC} \\ 110 \mathrm{VDC} \\ 220 \mathrm{VDC} \end{gathered}$ | 250 V AC | 5 A |
| Relay with <br> 1 changeover contact |  |  | $\begin{aligned} & 859-353 \\ & 859-354 \\ & 859-355 \\ & 859-357 \\ & 859-358 \end{aligned}$ | 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 <br> 1 changeover contact, with gold contacts | Mramm |  | 859-314 | 24 V DC | 36 V DC * | 50 mA * |
| Relay with <br> 1 changeover contact, with gold contacts with an extended input voltage and temperature range |  |  | $\begin{aligned} & 859-392 \\ & 859-386 \\ & 859-384 \\ & 859-317 \end{aligned}$ | $\begin{gathered} 24 \mathrm{~V} \text { DC } \\ 36 \mathrm{~V} D C \\ 48 \mathrm{VDC} \\ 115 \mathrm{VDC} \end{gathered}$ | 36 V DC * | 50 mA * |
| Relay with <br> 1 changeover contact, with gold contacts |  |  | 859-359 | 230 V AC | 36 V DC * | 50 mA * |
| Relay with <br> 1 changeover contact, with gold contacts |  |  | 859-360 | 115 V AC | 36 V DC * | 50 mA * |
| Relay with <br> 1 changeover contact, with gold contacts |  |  | 859-318 | 220 V DC | 36 V DC * | 50 mA * |
| Relay with <br> 1 changeover contact |  |  | 859-367 | 115 V AC | 250 V AC | 5 A |
| Relay with <br> 1 changeover contact, with specified turn-on and turn-off threshold |  |  | 859-368 | 230 V AC | 115 V AC | 5 A |
| Relay with <br> 1 changeover contact, with an extended input voltage and temperature range |  | ${ }_{\text {N2 }}^{\text {"杉 }}$ | 859-390 | 24 V DC | 250 V AC | 3 A |
| Relay with <br> 1 changeover contact, with an extended input voltage and temperature range |  |  | 859-391 | 110 V DC | 250 V AC | 3 A |
| Relay with <br> 1 changeover contact, with an extended input voltage and temperature range |  |  | $\begin{aligned} & 859-398 \\ & 859-394 \\ & 859-397 \\ & 859-393 \\ & 859-399 \end{aligned}$ | $\begin{aligned} & 24 \mathrm{~V} \text { DC } \\ & 36 \mathrm{~V} D C \\ & 48 \mathrm{~V} D C \\ & 72 \mathrm{VDC} \\ & 110 \mathrm{VDC} \end{aligned}$ | 250 V AC | 3 A |

[^0]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 $\mathrm{V}_{\mathrm{N}}$ | Output Voltage Range | Max. <br> Continuous Current |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Optocoupler with an extended output voltage and temperature range for use in railway traffic |  |  | 859-793 | 5 V DC | $3 \vee . . .60 \mathrm{~V}$ DC | 100 mA |
| Optocoupler with an extended output voltage and temperature range for use in railway traffic |  |  | $\begin{aligned} & 859-791 \\ & 859-794 \end{aligned}$ | $\begin{aligned} & 24 \mathrm{~V} \text { DC } \\ & 24 \mathrm{~V} D C \end{aligned}$ | $\begin{aligned} & 7 \text { V ... } 60 \text { V DC } \\ & 9 \text { V ... } 60 \text { V DC } \end{aligned}$ | $\begin{aligned} & 100 \mathrm{~mA} \\ & 100 \mathrm{~mA} \end{aligned}$ |
| Optocoupler |  |  | 859-796 | 24 V DC | 3 V ... 30 V DC | 100 mA |
| Optocoupler |  |  | 859-795 | 5 V DC | $3 \vee . . .30 \vee$ DC | 100 mA |
| Optocoupler, negative switching Power optocoupler |  |  | 859-720 | 24 V DC | $10 \mathrm{~V} . . .30 \mathrm{~V}$ 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 | $3 \vee . . .53 \vee$ 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 | atil |  | 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 |  |  | 859-756 | 24 V DC | 4 V ... 6.25 V DC | 500 mA |
| Optocoupler |  | N- | 859-902 | 5 V DC | 24 V ... 260 V DC | 500 mA |

857 Series
Features/Benefits:

- Pluggable relays and optocouplers
- Industry's most compact just 6.0 mm wide
CAGE CLAMP ${ }^{0}$ S
Vibration-proof - fast - maintenance-free
CAGE CLAMP ${ }^{\circledR}$ S termination for all conductor types.

fine-stranded
ferruled

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 ${ }^{\circledR}$, 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.


Sockets with Miniature Switching Relay, 857 Series

| Description |  |  | Item No. | Input Nominal Voltage $\mathrm{V}_{\mathrm{N}}$ | Max. Switching Voltage | Max. Continuous Current |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Relay with <br> 1 changeover contact |  |  | $\begin{aligned} & 857-303 \\ & 857-304 \\ & 857-305 \\ & 857-306 \\ & 857-307 \\ & 857-308 \end{aligned}$ | 12 VDC 24 VDC 48 VDC 60 V DC 110 VDC 220 V DC | 250 V AC | 6 A |
|  |  |  |  | $\begin{aligned} & 24 \mathrm{~V} \mathrm{AC/DC} \\ & 115 \mathrm{~V} \mathrm{AC/DC} \\ & 230 \mathrm{~V} \mathrm{AC/DC} \end{aligned}$ | 250 V AC | 6 A |
|  |  |  | $\begin{aligned} & 857-304 / 008-000 \\ & 857-358 / 008-000 \end{aligned}$ | $\begin{gathered} 24 \mathrm{~V} \mathrm{DC} \\ 230 \mathrm{VAC} / \mathrm{DC} \end{gathered}$ | 250 V AC | 8 A |
| Relay with 1 changeover contact, with gold contacts |  |  |  | $\begin{aligned} & 24 \mathrm{~V} D C \\ & 110 \mathrm{~V} D C \\ & 220 \mathrm{VDC} \end{aligned}$ | $\begin{gathered} 36 \text { V DC* / } \\ (250 \text { V AC/DC) } \end{gathered}$ | 50 mA * / (6 A ) |
|  |  |  | $\begin{aligned} & 857-364 \\ & 857-367 \\ & 857-368 \end{aligned}$ | 24 V AC/DC <br> 115 V AC/DC <br> 230 V AC/DC | $\begin{gathered} 36 \mathrm{~V} \mathrm{DC*} / \\ (250 \mathrm{~V} \mathrm{AC/DC)} \end{gathered}$ | 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 Capacity per Channel | Max. <br> Total Current |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 8-channel adapter with 14-pin flat cable connector, positive switching input** |  |  | 857-981 | 24 V DC | 1 A | 3 A |
| 8-channel adapter with 14 -pin flat cable connector, positive switching output** |  |  | 857-982 | 24 V DC | 1 A | 3 A |
| 8-channel adapter with D-sub male connector, Input with 15 -pin flat cable connector, positive switching** |  |  | 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 |  |  | Item No. | Input Nominal Voltage $\mathrm{V}_{\mathrm{N}}$ | Output Voltage Range | Max. Continuous Current |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Solid state relay |  |  | 857-704 | 24 V DC | 0 V ... 48 V DC | 100 mA |
|  |  |  | 857-707 | 115 V AC/DC | 0 V ... 48 V DC | 100 mA |
|  |  |  | 857-708 | 230 V AC/DC | $0 \mathrm{~V} . . .48 \mathrm{~V}$ DC | 100 mA |
| Solid state relay |  |  | 857-714 | 24 V DC | 24 V ... 240 V DC | 1 A |
|  |  |  | 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 |
| Solid state relay |  |  | 857-724 | 24 V DC | 0 V ... 24 V DC | 2 A |
|  |  |  | 857-727 | 115 V AC/DC | $0 \mathrm{~V} . . .24 \mathrm{~V}$ DC | 2 A |
|  |  | \| | 857-728 | 230 V AC/DC | $0 \mathrm{~V} . . .24 \mathrm{~V}$ DC | 2 A |

 with integrated recovery diode

- Integrated test ports - easy troubleshooting


## CAGE CLAMP ${ }^{\otimes}$ S

Vibration-proof - fast - maintenance-free
CAGE CLAMP® ${ }^{\circledR}$ termination for all conductor types.


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, filting where other relays do not.

## Sockets with Switching Relay and Optocoupler -

788 Series


## Sockets with Miniature Switching Relay, 788 Series

| Description |  |  | Item No. | Input Nominal Voltage $\mathrm{V}_{\mathrm{N}}$ | Max. Switching Voltage | Max. Continuous Current |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Relay with <br> 1 changeover contact and status indication ( 15 mm high) |  |  | $\begin{aligned} & 788-303 \\ & 788-304 \\ & 788-305 \\ & 788-306 \\ & 788-307 \end{aligned}$ | $\begin{aligned} & 12 \mathrm{~V} D C \\ & 24 \mathrm{VDC} \\ & 48 \mathrm{VDC} \\ & 60 \mathrm{VDC} \\ & 110 \mathrm{VDC} \end{aligned}$ | 250 V AC | 16 A |
| Relay with <br> 2 changeover contacts and status indication ( 15 mm high) |  |  | $\begin{aligned} & 788-311 \\ & 788-312 \\ & 788-313 \\ & 788-314 \\ & 788-315 \end{aligned}$ | $\begin{aligned} & 12 \mathrm{~V} \mathrm{DC} \\ & 24 \mathrm{VDC} \\ & 48 \mathrm{VDC} \\ & 60 \mathrm{VDC} \\ & 110 \mathrm{VDC} \end{aligned}$ | 250 V AC | $2 \times 8 \mathrm{~A}$ |
| Relay with <br> 1 changeover contact and status indication ( 15 mm high) |  |  | $\begin{aligned} & 788-506 \\ & 788-507 \\ & 788-508 \end{aligned}$ | $\begin{gathered} 24 \mathrm{~V} \mathrm{AC} \\ 115 \mathrm{~V} \mathrm{AC} \\ 230 \mathrm{~V} \mathrm{AC} \end{gathered}$ | 250 V AC | 16 A |
| Relay with 2 changeover contacts and status indication ( 15 mm high) |  |  | $\begin{aligned} & 788-512 \\ & 788-515 \\ & 788-516 \end{aligned}$ | $\begin{gathered} 24 \mathrm{~V} \mathrm{AC} \\ 115 \mathrm{~V} \mathrm{AC} \\ 230 \mathrm{~V} \mathrm{AC} \end{gathered}$ | 250 V AC | $2 \times 8 \mathrm{~A}$ |
| Relay with 1 changeover contact, with gold contacts and status indication ( 15 mm high) | ar |  | 788-404 | 24 V DC | 36 V DC* | 50 mA * |
| Relay with 2 changeover contacts, with gold contacts and status indication ( 15 mm high) |  |  | 788-412 | 24 V DC | 36 V DC* | $2 \times 50 \mathrm{~mA}$ * |
| Relay with 1 changeover contact, with gold contacts and status indication ( 15 mm high) | who |  | $\begin{aligned} & 788-607 \\ & 788-608 \end{aligned}$ | $\begin{aligned} & 115 \mathrm{~V} \mathrm{AC} \\ & 230 \mathrm{~V} \mathrm{AC} \end{aligned}$ | 36 V DC* | 50 mA * |
| Relay with 2 changeover contacts, with gold contacts and status indication ( 15 mm high) |  |  | $\begin{aligned} & 788-615 \\ & 788-616 \end{aligned}$ | $\begin{aligned} & 115 \mathrm{~V} \mathrm{AC} \\ & 230 \mathrm{~V} \mathrm{AC} \end{aligned}$ | 36 V DC* | $2 \times 50 \mathrm{~mA}$ * |
| Relay with <br> 1 changeover contact and status indication ( 25 mm high) |  |  | 788-324 | 24 V DC | 250 V AC | 16 A |
| Relay with <br> 2 changeover contacts and status indication ( 25 mm high) |  |  | 788-334 | 24 V DC | 250 V AC | $2 \times 8 \mathrm{~A}$ |
| Relay with <br> 1 changeover contact and status indication ( 25 mm high) |  |  | 788-528 | 230 V AC | 250 V AC | 16 A |
| Relay with <br> 2 changeover contacts and status indication ( 25 mm high) |  |  | 788-538 | 230 V AC | 250 V AC | $2 \times 8 \mathrm{~A}$ |

[^1]
## Sockets with Miniature Switching Relay, 788 Series

| Description |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Relay with <br> 1 changeover contact <br> and status indication <br> (15 mm high) |

Sockets with Optocoupler, 788 Series



## CAGE CLAMP® ${ }^{\circledR}$

Vibration-proof - fast - maintenance-free
CAGE CLAMP® ${ }^{\text {S }}$ termination for all conductor types.


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 ${ }^{\otimes}$ COMPACT connection point for
either $2 \times 0.34 \mathrm{~mm}^{2}(22$ AWG) to $1.5 \mathrm{~mm}^{2}$ ( 16 AWG) or $1 \times 2.5 \mathrm{~mm}^{2}$ (12 AWG) cross-section. CAGE CLAMP®S COMPACT Spring Pressure Connection Technology provides simple, push-in termination of solid or ferruled conductors $0.5 \mathrm{~mm}^{2}$ (20 AWG) and larger.

## Sockets with Industrial Relay -

Speedy Socket Service:
rapidly replace relays without removing conductors.

## Sockets with Industrial Relay, 858 Series



* 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 $0.08 \mathrm{~mm}^{2}$ to $2.5 \mathrm{~mm}^{2}$ (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 ${ }^{\circ}$

Vibration-proof - fast - maintenance-free
CAGE CLAMP ${ }^{\circledR}$ termination for all conductor types.


Pluggable modules for carrier terminal blocks maximize flexibility while simplifying maintenance:

1. The DIN-rail mount carrier block is wired just 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, <br> 286 Series

| Description |  |  | Item No. | Input Nominal Voltage $\mathrm{V}_{\mathrm{N}}$ | Max. <br> Switching Voltage | Max. <br> Continuous <br> Current |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Relay with <br> 1 make contact |  |  | $\begin{aligned} & 286-364 \\ & 286-365 \\ & 286-366 \\ & 286-564 \\ & 286-566 \\ & 286-567 \end{aligned}$ | $\begin{gathered} 24 \mathrm{~V} \mathrm{DC} \\ 48 \mathrm{~V} \mathrm{DC} \\ 60 \mathrm{~V} \mathrm{DC} \\ 24 \mathrm{~V} \mathrm{AC} \\ 115 \mathrm{~V} \mathrm{AC} \\ 230 \mathrm{~V} \mathrm{AC} \end{gathered}$ | $\begin{aligned} & \text { DC } 30 \mathrm{~V} / \\ & \text { AC } 250 \mathrm{~V} \end{aligned}$ | 5 A |
| Relay with 1 break contact |  |  | $\begin{aligned} & 286-368 \\ & 286-369 \\ & 286-370 \\ & 286-568 \end{aligned}$ | $\begin{aligned} & 24 \mathrm{~V} \text { DC } \\ & 48 \mathrm{~V} \mathrm{DC} \\ & 60 \mathrm{VDC} \\ & 24 \mathrm{~V} \mathrm{AC} \end{aligned}$ | $\begin{gathered} 250 \text { V DC / } \\ 250 \text { V AC } \end{gathered}$ | 5 A |
| Relay with <br> 1 changeover contact |  |  | $\begin{aligned} & 286-302 \\ & 286-303 \\ & 286-304 \\ & 286-305 \\ & 286-306 \\ & 286-307 \\ & 286-308 \\ & \hline \end{aligned}$ | $\begin{gathered} \hline 5 / 6 \mathrm{~V} D C \\ 12 \mathrm{~V} D C \\ 24 \mathrm{~V} D C \\ 48 \mathrm{~V} D C \\ 60 \mathrm{~V} \text { DC } \\ 115 \mathrm{~V} \mathrm{DC} \\ 220 \mathrm{~V} \mathrm{DC} \\ \hline \end{gathered}$ | $\begin{gathered} 300 \text { V DC / } \\ 250 \text { V AC } \end{gathered}$ | 7 A |
| Relay with <br> 1 changeover contact |  |  | $\begin{aligned} & \hline 286-502 \\ & 286-503 \\ & 286-504 \\ & 286-505 \\ & 286-506 \\ & 286-507 \\ & 286-508 \\ & \hline \end{aligned}$ | $\begin{gathered} 5 / 6 \mathrm{~V} \mathrm{AC/DC} \\ 12 \mathrm{~V} \mathrm{AC/DC} \\ 24 \mathrm{~V} \mathrm{AC/DC} \\ 48 \mathrm{~V} \mathrm{AC/DC} \\ 60 \mathrm{~V} \mathrm{AC/DC} \\ 115 \mathrm{~V} \mathrm{AC} \\ 230 \mathrm{VAC} \end{gathered}$ | $\begin{gathered} 300 \text { V DC / } \\ 250 \text { V AC } \end{gathered}$ | 7 A |
| Relay with 1 changeover contact, with gold contacts |  |  | $\begin{aligned} & 286-394 \\ & 286-395 \\ & 286-594 \end{aligned}$ | $\begin{gathered} 24 \mathrm{~V} \text { DC } \\ 48 \mathrm{VDC} \\ 24 \mathrm{VAC} / D C \end{gathered}$ | 36 V DC | 1 A |
| Relay with <br> 2 changeover contacts |  |  | $\begin{aligned} & 286-310 \\ & 286-311 \\ & 286-312 \\ & 286-313 \\ & 286-314 \\ & 286-315 \\ & 286-316 \end{aligned}$ | $\begin{gathered} 5 / 6 \mathrm{~V} D C \\ 12 \mathrm{~V} D C \\ 24 \mathrm{~V} D C \\ 48 \mathrm{~V} D C \\ 60 \mathrm{VDC} \\ 115 \mathrm{~V} D C \\ 220 \mathrm{~V} D C \end{gathered}$ | $\begin{gathered} 300 \text { V DC / } \\ 250 \text { V AC } \end{gathered}$ | 7 A |
| Relay with <br> 2 changeover contacts |  |  | $\begin{aligned} & 286-510 \\ & 286-511 \\ & 286-512 \\ & 286-513 \\ & 286-514 \\ & 286-515 \\ & 286-516 \end{aligned}$ | $\begin{gathered} 5 / 6 \mathrm{~V} \mathrm{AC} \\ 12 \mathrm{~V} \mathrm{AC} \\ 24 \mathrm{~V} \mathrm{AC} \\ 48 \mathrm{~V} \mathrm{AC} \\ 60 \mathrm{~V} \mathrm{AC} \\ 115 \mathrm{~V} \mathrm{AC} \\ 230 \mathrm{~V} \mathrm{AC} \end{gathered}$ | $\begin{gathered} 300 \text { V DC / } \\ 250 \text { V AC } \end{gathered}$ | 7 A |
| Relay with <br> 1 break and <br> 1 make contact |  |  | $\begin{aligned} & 286-318 \\ & 286-319 \\ & 286-320 \\ & 286-321 \\ & 286-322 \\ & 286-324 \\ & 286-520 \end{aligned}$ | $\begin{gathered} 5 / 6 \mathrm{~V} \mathrm{DC} \\ 12 \mathrm{~V} \mathrm{DC} \\ 24 \mathrm{VDC} \\ 48 \mathrm{VDC} \\ 60 \mathrm{~V} D C \\ 220 \mathrm{VDC} \\ 24 \mathrm{VAC} \end{gathered}$ | $\begin{gathered} 250 \text { V DC / } \\ 380 \text { V AC } \end{gathered}$ | 6 A |
| Relay with 2 make contacts |  |  | $\begin{aligned} & 286-326 \\ & 286-327 \\ & 286-328 \\ & 286-329 \\ & 286-330 \\ & 286-332 \end{aligned}$ | $\begin{gathered} 5 / 6 \mathrm{~V} D C \\ 12 \mathrm{~V} D C \\ 24 \mathrm{VDC} \\ 48 \mathrm{VDC} \\ 60 \mathrm{~V} D C \\ 220 \mathrm{VDC} \end{gathered}$ | $\begin{gathered} 250 \text { V DC / } \\ 380 \text { V AC } \end{gathered}$ | 6 A |


| Description |  |  | Item No. | Input Nominal Voltage $\mathrm{V}_{\mathrm{N}}$ | Max. <br> Switching Voltage | Max. <br> Continuous <br> Current |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Relay with <br> 2 break contacts and <br> 2 make contacts |  |  | $\begin{aligned} & 286-334 \\ & 286-335 \\ & 286-336 \\ & 286-337 \\ & 286-338 \\ & 286-339 \\ & 286-536 \\ & 286-540 \\ & \hline \end{aligned}$ | $\begin{gathered} \hline 5 / 6 \mathrm{~V} \mathrm{DC} \\ 12 \mathrm{~V} \mathrm{DC} \\ 24 \mathrm{~V} \text { DC } \\ 48 \mathrm{~V} \mathrm{DC} \\ 60 \mathrm{~V} D C \\ 115 \mathrm{~V} \mathrm{DC} \\ 24 \mathrm{~V} \mathrm{AC} \\ 230 \mathrm{~V} \mathrm{AC} \\ \hline \end{gathered}$ | $\begin{gathered} 250 \text { V DC / } \\ 250 \text { V AC } \end{gathered}$ | 5 A |
| Relay with <br> 1 break contact and 3 make contacts |  |  | $\begin{aligned} & 286-342 \\ & 286-343 \\ & 286-344 \\ & 286-345 \\ & 286-346 \\ & 286-347 \\ & 286-544 \\ & 286-547 \\ & 286-548 \end{aligned}$ | $\begin{gathered} 5 / 6 \mathrm{VDC} \\ 12 \mathrm{~V} \mathrm{DC} \\ 24 \mathrm{~V} \mathrm{DC} \\ 48 \mathrm{~V} \mathrm{DC} \\ 60 \mathrm{VDC} \\ 115 \mathrm{~V} \mathrm{DC} \\ 24 \mathrm{~V} \mathrm{AC} \\ 115 \mathrm{~V} \mathrm{AC} \\ 230 \mathrm{~V} \mathrm{AC} \end{gathered}$ | $\begin{gathered} 250 \text { V DC / } \\ 250 \text { V AC } \end{gathered}$ | 5 A |
| Relay with 4 make contacts |  |  | $\begin{aligned} & 286-350 \\ & 286-351 \\ & 286-352 \\ & 286-353 \\ & 286-354 \\ & 286-355 \\ & 286-552 \\ & 286-555 \\ & 286-556 \end{aligned}$ | $\begin{gathered} \hline 5 / 6 \mathrm{~V} \mathrm{DC} \\ 12 \mathrm{~V} \mathrm{DC} \\ 24 \mathrm{~V} \mathrm{DC} \\ 48 \mathrm{~V} \mathrm{DC} \\ 60 \mathrm{VDC} \\ 115 \mathrm{~V} \mathrm{DC} \\ 24 \mathrm{~V} \mathrm{AC} \\ 115 \mathrm{~V} \mathrm{AC} \\ 230 \mathrm{~V} \mathrm{AC} \\ \hline \end{gathered}$ | $\begin{gathered} 250 \text { V DC / } \\ 250 \text { V AC } \end{gathered}$ | 5 A |
| Relay with <br> 4 changeover contacts |  |  | $\begin{aligned} & 286-375 \\ & 286-578 \\ & 286-579 \end{aligned}$ | $\begin{gathered} 24 \mathrm{~V} \mathrm{DC} \\ 110 / 120 \mathrm{VAC} \\ 230 \mathrm{VAC} \end{gathered}$ | $\begin{aligned} & 60 \mathrm{~V} D C / \\ & 250 \mathrm{~V} \mathrm{AC} \end{aligned}$ | $\begin{gathered} 2 \mathrm{ADC} / \\ 4 \mathrm{AAC} \end{gathered}$ |
| Relay with 1 make contact, for higher DC loads |  |  | 286-376 | 24 V DC | $\begin{gathered} 250 \text { V DC / } \\ 250 \text { V AC } \end{gathered}$ | 5 A |
| Relay with 2 changeover contacts, with gold contacts |  |  | 286-384 | 24 V DC | 36 V DC* | 50 mA * |
| Relay with <br> 1 changeover contact, with specified switching threshold |  | " | 286-904 | 230 V AC | $\begin{gathered} 250 \mathrm{~V} \mathrm{DC} \mathrm{/} \\ 380 \mathrm{~V} \mathrm{AC} \end{gathered}$ | 5 A |
| Relay with <br> 1 break and <br> 1 make contact, minimal control power $\geq 7 \mathrm{~mW}$, trigger voltage |  |  | 286-906 | 24 V DC | $\begin{gathered} 250 \text { V DC / } \\ 380 \text { V AC } \end{gathered}$ | 6 A |
| Latching relay with <br> 1 break and <br> 1 make contact |  |  | $\begin{aligned} & 286-571 \\ & 286-570 \end{aligned}$ | $\begin{gathered} 24 \mathrm{~V} \mathrm{DC} \\ 230 \mathrm{~V} \mathrm{AC} \end{gathered}$ | $\begin{aligned} & 30 \mathrm{~V} \text { DC / } \\ & 250 \mathrm{VAC} \end{aligned}$ | 5 A |
| Bistable relay with 1 changeover contact, positive switching / negative switching |  | $\overbrace{0}^{\text {本 }}$ | $\begin{aligned} & 286-380 \\ & 286-381 \end{aligned}$ | $\begin{aligned} & 24 \mathrm{~V} D C \\ & 24 \mathrm{~V} D C \end{aligned}$ | $\begin{gathered} 250 \text { V DC / } \\ 250 \text { V AC } \end{gathered}$ | 6 A |

## Pluggable Modules - Relays, <br> 286 Series

| Description |  |  | Item No. | Input Nominal Voltage $\mathrm{V}_{\mathrm{N}}$ | Max. Switching Voltage | Max. <br> Continuous <br> Current |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Relay with 1 make contact, with an extended input voltage and temperature range |  |  | 286-364/004-000 | 24 V DC | 250 V AC | 3 A |
| Relay with 1 break contact, with an extended input voltage and temperature range |  | "掉 | $\begin{gathered} 286-368 / \\ 004-000 \end{gathered}$ | 24 V DC | 250 V AC | 3 A |
| Relay with <br> 1 changeover contact, with an extended input voltage and temperature range |  | $\overbrace{1}^{4}$ | $\begin{gathered} 286-304 / \\ 004-000 \\ 286-307 / \\ 004-000 \end{gathered}$ | $\begin{aligned} & 24 \mathrm{VDC} \\ & 110 \mathrm{VDC} \end{aligned}$ | 250 V AC/DC | 3 A |
| Relay with $\mathbf{1}$ changeover contact, with gold contacts with an extended input voltage and temperature range |  | $\overbrace{n}^{n}$ | $\begin{gathered} 286-394 / \\ 004-000 \end{gathered}$ | 24 V DC | 36 V DC* | 50 mA * |
| Relay with 2 changeover contacts, with an extended input voltage and temperature range |  |  | $\begin{array}{r} 286-312 / \\ 004-000 \end{array}$ | 24 V DC | $\begin{gathered} 250 \text { V AC / } \\ 200 \text { V DC } \end{gathered}$ | 4 A |
| Relay with 1 break and 1 make contact, with an extended input voltage and temperature range |  |  | $\begin{gathered} 286-320 / \\ 004-000 \end{gathered}$ | 24 V DC | $\begin{gathered} 250 \text { V AC / } \\ 200 \text { V DC } \end{gathered}$ | 4 A |
| Relay with 2 make contacts, with an extended input voltage and temperature range |  |  | $\begin{gathered} 286-328 / \\ 004-000 \end{gathered}$ | 24 V DC | $\begin{gathered} 250 \text { V AC / } \\ 200 \text { V DC } \end{gathered}$ | 4 A |
| Relay with 2 break contacts and 2 make contacts with an extended input voltage and temperature range |  |  | $\begin{gathered} 286-336 / \\ 001-000 \end{gathered}$ | 24 V DC | $\begin{gathered} 250 \text { V AC / } \\ 200 \text { V DC } \end{gathered}$ | 4 A |
| Relay with 1 break contact and 3 make contacts with an extended input voltage and temperature range |  |  | $\begin{gathered} 286-344 / \\ 004-000 \end{gathered}$ | 24 V DC | $\begin{gathered} 250 \text { V AC / } \\ 200 \text { V DC } \end{gathered}$ | 4 A |
| Relay with 4 make contacts, with an extended input voltage and temperature range |  |  | $\begin{gathered} 286-352 / \\ 004-000 \end{gathered}$ | 24 V DC | $\begin{gathered} 250 \text { V AC / } \\ 30 \text { V DC } \end{gathered}$ | 4 A |
| Relay with <br> 1 break and 1 make contact, with an extended input voltage and temperature range |  | $\begin{array}{ll} : ~ \\ \square \\ \square \end{array}$ | $\begin{gathered} 286-906 / \\ 004-000 \end{gathered}$ | 24 V DC | 250 V AC/DC | 3 A |

## Pluggable Modules - Optocouplers, <br> 286 Series




## CAGE CLAMP ${ }^{\circledR}$

Vibration-proof - fast - maintenance-free
CAGE CLAMP ${ }^{\circledR}$ termination for all conductor types.
solid


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 - provi-
de 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 $0.08 \mathrm{~mm}^{2}$ to $2.5 \mathrm{~mm}^{2}$ (28-12 AWG)


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



| Description |  |  | Item No. | Input Nominal Voltage $\mathrm{V}_{\mathrm{N}}$ | Max. Switching Voltage | Max. Continuous Current |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Relay with 1 make contact, 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 1 make contact, relays pre-soldered onto mounting carrier, designed for switching high inrush current loads (e.g., filament lamp loads) |  |  | 287-475 | 24 V DC | 440 V AC | 16 A |
| 4 relays with 1 make contact each, relays pre-soldered onto mounting carrier |  |  | 287-474 | 24 V DC | $\begin{gathered} 250 \text { V DC / } \\ 250 \text { V AC } \end{gathered}$ | 16 A |
| Bistable relay with 1 changeover contact, relay pre-soldered onto mounting carrier |  |  | 288-380 | 24 V DC | $\begin{gathered} 300 \text { V DC / } \\ 250 \text { V AC } \end{gathered}$ | 6 A |
| Relay with <br> 2 changeover contacts, with force-guided contacts, relay pre-soldered onto mounting carrier |  |  | 288-437 | 24 V DC | 380 V DC | 5 A |
| 2 safety relays, <br> Hengstler H-462 type, with <br> 3 make contacts and <br> 1 break contact, pluggable relays pre-installed into mounting carrier |  |  | 288-435 | 24 V DC | $\begin{gathered} 300 \text { V DC / } \\ 230 \text { V AC } \end{gathered}$ | 6 A |
| Safety relay, SDS SF 4 type, with 4 break contacts and 4 make contacts, 1 module, relay pre-soldered onto mounting carrier |  |  | $\begin{aligned} & 288-412 \\ & 288-413 \\ & 288-414 \\ & 288-415 \\ & 288-416 \\ & 288-418 \end{aligned}$ | $\begin{gathered} 5 \mathrm{~V} \mathrm{DC} \\ 12 \mathrm{~V} \mathrm{DC} \\ 24 \mathrm{VAC} / D C \\ 48 \mathrm{VAC} / D C \\ 60 \mathrm{VAC} / D C \\ 230 \mathrm{~V} \mathrm{AC/DC} \end{gathered}$ | 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 |  |  | $\begin{aligned} & 288-422 \\ & 288-423 \\ & 288-424 \\ & 288-425 \\ & 288-426 \\ & 288-428 \end{aligned}$ | $\begin{gathered} 5 \mathrm{VDC} \\ 12 \mathrm{~V} \mathrm{DC} \\ 24 \mathrm{VAC} / D C \\ 48 \mathrm{VAC} / D C \\ 60 \mathrm{VAC} / D C \\ 230 \mathrm{VAC} \end{gathered}$ | 250 V AC | 6 A |



## CAGE CLAMP ${ }^{\circledR}$

Vibration-proof - fast - maintenance-free
CAGE CLAMP ${ }^{\circledR}$ termination for all conductor types.


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




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[^0]:    * In order to prevent the gold layer from being damaged, these values shall not be exceeded.

[^1]:    * 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.

