

*Automation is our passion*

# Catalogue

relays: signal • miniature • industrial • interface • high power • for railroad industry  
programmable • installation • bistable - impulse • time • monitoring • solid state



# 60 years of experience in production of highest-quality relays



1958 Relay Division of REFA Świebodzice founded in Żary



1982 Independent enterprise of Zakład Przekazników established



1991 Zakład Przekazników transformed into Relpol S.A. in Żary



1996 Relpol S.A. IPO at the Warsaw Stock Exchange



2021 Relpol's presence in markets worldwide





# Applications, certifications

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Innovative features of our technological solutions and reliability of our products are confirmed by numerous recognitions and certifications: VDE, UL, CSA, EAC, UKCA, LR, IK and by prizes and awards.



Installation relays RPI  
 Bistable - impulse relays RPB  
 Time relays RPC  
 Monitoring relays RPN  
 Signal lamps RLK

## Selection table

| Electrical terminals          |     |             |            |                 |                  | Coil / input |    | Type                  | Number and type of contacts / outputs | Rated current                  |  |      |                   |      |    |
|-------------------------------|-----|-------------|------------|-----------------|------------------|--------------|----|-----------------------|---------------------------------------|--------------------------------|--|------|-------------------|------|----|
| for PCB                       | SMT | for sockets | connectors | screw terminals | spring terminals | AC           | DC |                       |                                       | AC/DC                          | bistable DC  | [A]  | 5                 | 10   | 15 |
| <b>Relays for electronics</b> |     |             |            |                 |                  |              |    |                       |                                       |                                |  |      |                   |      |    |
|                               |     |             |            |                 |                  |              |    | RSM850                | 2 CO                                  | 2 A                            |  |      |                   |      |    |
|                               |     |             |            |                 |                  |              |    | RSM850B               | 2 CO                                  | 2 A                            |  |      |                   |      |    |
|                               |     |             |            |                 |                  |              |    | RSM822N               | 2 CO                                  |                                | 3 A / 2 A (NO/NC)                                    |      |                   |      |    |
|                               |     |             |            |                 |                  |              |    | RSM954N               | 1 CO                                  | 3 A                            |  |      |                   |      |    |
|                               |     |             |            |                 |                  |              |    | RSM957N               | 1 CO                                  | 1 A                            |  |      |                   |      |    |
|                               |     |             |            |                 |                  |              |    | RM12                  | 1 CO, 1 NO                            |                                | 8 A  |      |                   |      |    |
|                               |     |             |            |                 |                  |              |    | RM12N                 | 1 CO, 1 NO                            |                                | 1 CO: 8 A, 1 NO: 10 A                                |      |                   |      |    |
|                               |     |             |            |                 |                  |              |    | RM32N                 | 1 CO, 1 NO                            |                                | 1 CO: 5 A / 5 A (NO/NC)                              |      | 1 NO: 5 A, 10 A ② |      |    |
|                               |     |             |            |                 |                  |              |    | RM40                  | 1 CO, 1 NO                            |                                | 1 CO: 5 A, 1 NO: 8 A                                 |      |                   |      |    |
|                               |     |             |            |                 |                  |              |    | RM45N                 | 1 CO, 1 NO                            |                                | 1 CO: 5 A / 5 A (NO/NC)                              |      | 1 NO: 5 A, 10 A ② |      |    |
|                               |     |             |            |                 |                  |              |    | RM50N                 | 1 CO, 1 NO                            |                                | 6 A, 12 A ②  |      |                   |      |    |
|                               |     |             |            |                 |                  |              |    | RM51                  | 1 CO, 1 NO                            |                                | 1 CO: 10 A / 7 A (NO/NC), 20 A ②, 1 NO: 10 A, 20 A ② |      |                   |      |    |
|                               |     |             |            |                 |                  |              |    | RM84                  | 2 CO, 2 NO                            |                                | 8 A  |      |                   |      |    |
|                               |     |             |            |                 |                  |              |    | RM85                  | 1 CO, 1 NO                            |                                |  |      | 16 A              |      |    |
|                               |     |             |            |                 |                  |              |    | RM85 ①                | 1 NO                                  |                                |  |      | 16 A              |      |    |
|                               |     |             |            |                 |                  |              |    | RM85 inrush           | 1 NO                                  |                                |  |      | 16 A              |      |    |
|                               |     |             |            |                 |                  |              |    | RM85 105 °C sensitive | 1 NO                                  |                                |  |      | 16 A              |      |    |
|                               |     |             |            |                 |                  |              |    | RM85 faston           | 1 NO                                  |                                |  |      |                   | 20 A |    |
|                               |     |             |            |                 |                  |              |    | RM87                  | 1 CO, 1 NO                            |                                | 12 A   |      |                   |      |    |
|                               |     |             |            |                 |                  |              |    | RM87 sensitive        | 1 NO                                  |                                | 10 A   |      |                   |      |    |
|                               |     |             |            |                 |                  |              |    | RM96                  | 1 CO, 1 NO, 1 NC                      |                                | 8 A  |      |                   |      |    |
|                               |     |             |            |                 |                  |              |    | RM699B                | 1 CO, 1 NO                            | AgSnO <sub>2</sub> , AgNi: 6 A |  |      |                   |      |    |
|                               |     |             |            |                 |                  |              |    | RM83                  | 1 CO, 1 NO, 1 NC                      |                                |  |      | 16 A              |      |    |
|                               |     |             |            |                 |                  |              |    | RMP84                 | 2 CO                                  |                                | 8 A  |      |                   |      |    |
|                               |     |             |            |                 |                  |              |    | RMP85                 | 1 CO                                  |                                |  |      | 16 A              |      |    |
|                               |     |             |            |                 |                  |              |    | RA2 ②                 | 1 CO, 1 NO, 2 NO                      |                                | 1 CO: 20 A / 12 A (NO/NC), 1 NO: 20 A                |      |                   |      |    |
| <b>Relays for industry</b>    |     |             |            |                 |                  |              |    |                       |                                       |                                |  |      |                   |      |    |
|                               |     |             |            |                 |                  |              |    | R2N                   | 2 CO                                  |                                |  |      | 12 A              |      |    |
|                               |     |             |            |                 |                  |              |    | R3N                   | 3 CO                                  |                                |  | 10 A |                   |      |    |
|                               |     |             |            |                 |                  |              |    | R4N                   | 4 CO                                  |                                | 7 A  |      |                   |      |    |
|                               |     |             |            |                 |                  |              |    | R2M                   | 2 CO                                  | 5 A                            |  |      |                   |      |    |
|                               |     |             |            |                 |                  |              |    | R15 - 2 CO            | 2 CO                                  |                                |  | 10 A |                   |      |    |
|                               |     |             |            |                 |                  |              |    | R15 - 3 CO            | 3 CO                                  |                                |  | 10 A |                   |      |    |
|                               |     |             |            |                 |                  |              |    | R15 - 4 CO            | 4 CO                                  |                                |  | 10 A |                   |      |    |

① RM85 for switching higher voltages ② RA2 - automotive relays (2 NO: 2 x 12,5 A) ③ At lowered voltage

**How to use the table:** select the number and type of contacts, please; then, select a relay depending on its rated current, type of terminals and coil voltage.

The ordering code structure provides for formulation of **numerous variants**. Not all of them are defined as standard ones and, thus, not all of them are included in the product line. However, **deliveries of special versions according to the customer's specification are possible**. Please, contact with Relpol S.A. or our local representatives for details. The data of the devices may be changed with no prior notice.



## Selection table

| Electrical terminals                   |             |            |                 |                   |                  | Coil / input |    |       |             | Type                          | Number and type of contacts / outputs | Rated current   |     |   |    |    |    |    |    |
|--|-------------|------------|-----------------|-------------------|------------------|--------------|----|-------|-------------|-------------------------------|---------------------------------------|---|-----|---|----|----|----|----|----|
| for PCB                                | for sockets | connectors | screw terminals | Push-in terminals | spring terminals | AC           | DC | AC/DC | bistable DC |                               |                                       | CO - changeover<br>NO - normally open<br>NC - normally closed | [A] | 5 | 10 | 20 | 40 | 60 | 80 |
|  |             |            |                 |                   |                  |              |    |       |             | <b>Relays for industry</b>    |                                       |   |     |   |    |    |    |    |    |
|  |             |            |                 |                   |                  |              |    |       |             | RG25                          | 2 NO                                  | 25 A  |     |   |    |    |    |    |    |
|  |             |            |                 |                   |                  |              |    |       |             | RUC                           | 2 CO, 3 CO,<br>2 NO, 3 NO             | 16 A  |     |   |    |    |    |    |    |
|  |             |            |                 |                   |                  |              |    |       |             | RUC-M                         | 1 NO, 2 NO                            | 16 A  |     |   |    |    |    |    |    |
|  |             |            |                 |                   |                  |              |    |       |             | R20                           | 1 NO, 2 NO                            | 2 NO: 25 A, 1 NO: 30 A  |     |   |    |    |    |    |    |
|  |             |            |                 |                   |                  |              |    |       |             | R30N                          | 1 CO, 1 NO                            | 1 CO: 30 A / 20 A (NO/NC), 1 NO: 30 A                         |     |   |    |    |    |    |    |
|  |             |            |                 |                   |                  |              |    |       |             | R40N                          | 1 CO, 1 NO                            | 1 CO: 40 A / 30 A (NO/NC), 1 NO: 40 A                         |     |   |    |    |    |    |    |
|  |             |            |                 |                   |                  |              |    |       |             | PI84 with socket GZT80        | 2 CO                                  | 8 A   |     |   |    |    |    |    |    |
|  |             |            |                 |                   |                  |              |    |       |             | PI84 with socket GZM80        | 2 CO                                  | 8 A   |     |   |    |    |    |    |    |
|  |             |            |                 |                   |                  |              |    |       |             | PI84 with socket GZP80        | 2 CO                                  | 8 A   |     |   |    |    |    |    |    |
|  |             |            |                 |                   |                  |              |    |       |             | PI85 with socket GZT80        | 1 CO                                  | 12 A, 16 A ④  |     |   |    |    |    |    |    |
|  |             |            |                 |                   |                  |              |    |       |             | PI85 with socket GZM80        | 1 CO                                  | 12 A, 16 A ④  |     |   |    |    |    |    |    |
|  |             |            |                 |                   |                  |              |    |       |             | PI85 with socket GZP80        | 1 CO                                  | 12 A, 16 A ④  |     |   |    |    |    |    |    |
|  |             |            |                 |                   |                  |              |    |       |             | PI85 inrush with socket GZT80 | 1 NO                                  | 12 A, 16 A ④  |     |   |    |    |    |    |    |
|  |             |            |                 |                   |                  |              |    |       |             | PI84P with socket GZP80       | 2 CO                                  | 8 A   |     |   |    |    |    |    |    |
|  |             |            |                 |                   |                  |              |    |       |             | PI85P with socket GZP80       | 1 CO                                  | 12 A, 16 A ④  |     |   |    |    |    |    |    |
|  |             |            |                 |                   |                  |              |    |       |             | PIR2 with socket GZM2         | 2 CO                                  | 12 A  |     |   |    |    |    |    |    |
|  |             |            |                 |                   |                  |              |    |       |             | PIR2 with socket GZP4         | 2 CO                                  | 12 A  |     |   |    |    |    |    |    |
|  |             |            |                 |                   |                  |              |    |       |             | PIR3 with socket GZM3         | 3 CO                                  | 10 A  |     |   |    |    |    |    |    |
|  |             |            |                 |                   |                  |              |    |       |             | PIR4 with socket GZM4         | 4 CO                                  | 7 A   |     |   |    |    |    |    |    |
|  |             |            |                 |                   |                  |              |    |       |             | PIR4 with socket GZP4         | 4 CO                                  | 7 A   |     |   |    |    |    |    |    |
|  |             |            |                 |                   |                  |              |    |       |             | PI6-1P                        | 1 CO                                  | AgSnO <sub>2</sub> : 6 A                                      |     |   |    |    |    |    |    |
|  |             |            |                 |                   |                  |              |    |       |             | PI6-1T                        | 1 NO                                  | 1,2 A   |     |   |    |    |    |    |    |
|  |             |            |                 |                   |                  |              |    |       |             | PIR6W-1P-...                  | 1 CO                                  | AgSnO <sub>2</sub> : 6 A                                      |     |   |    |    |    |    |    |
|  |             |            |                 |                   |                  |              |    |       |             | PIR6W-1PS-... ⑤               | 1 CO, 1 NO                            | R (AgSnO <sub>2</sub> ): 6 A T, C: 1 A, O: 2 A                |     |   |    |    |    |    |    |
|  |             |            |                 |                   |                  |              |    |       |             | PIR6WB-1PS-... ⑤              | 1 CO, 1 NO                            | R (AgSnO <sub>2</sub> ): 6 A T, C: 1 A, O: 2 A                |     |   |    |    |    |    |    |
|  |             |            |                 |                   |                  |              |    |       |             | SIR6W-... ⑤                   | 1 CO, 1 NO                            | R (AgSnO <sub>2</sub> ): 6 A T, C: 1 A, O: 2 A                |     |   |    |    |    |    |    |
|  |             |            |                 |                   |                  |              |    |       |             | SIR6WB-... ⑤                  | 1 CO, 1 NO                            | R (AgSnO <sub>2</sub> ): 6 A T, C: 1 A, O: 2 A                |     |   |    |    |    |    |    |
| <b>Relays for photovoltaic systems</b> |             |            |                 |                   |                  |              |    |       |             |                               |                                       |   |     |   |    |    |    |    |    |
|  |             |            |                 |                   |                  |              |    |       |             | RS35                          | 2 NO                                  | 35 A  |     |   |    |    |    |    |    |
|  |             |            |                 |                   |                  |              |    |       |             | RS50                          | 1 NO, 2 NO                            | 50 A  |     |   |    |    |    |    |    |
|  |             |            |                 |                   |                  |              |    |       |             | RS80                          | 1 NO                                  | 80 A  |     |   |    |    |    |    |    |
|  |             |            |                 |                   |                  |              |    |       |             | RG25                          | 2 NO                                  | 25 A  |     |   |    |    |    |    |    |
|  |             |            |                 |                   |                  |              |    |       |             | RUC                           | 2 CO, 3 CO,<br>2 NO, 3 NO             | 16 A  |     |   |    |    |    |    |    |
|  |             |            |                 |                   |                  |              |    |       |             | RUC-M                         | 1 NO, 2 NO                            | 16 A  |     |   |    |    |    |    |    |

④ See [www.repol.com.pl](http://www.repol.com.pl) ⑤ Operational relay - electromagnetic **RM699BV** or solid state **RSR30**

How to use the table and the ordering code structure - see page 4.

## Selection table

| Electrical terminals             |             |            |                 |                   |                  | Coil / input |    | Type                                | Number and type of contacts / outputs | Rated current    |             |     |                             |      |    |
|----------------------------------|-------------|------------|-----------------|-------------------|------------------|--------------|----|-------------------------------------|---------------------------------------|------------------|-------------|-----|-----------------------------|------|----|
| for PCB                          | for sockets | connectors | screw terminals | Push-in terminals | spring terminals | AC           | DC |                                     |                                       | AC/DC            | bistable DC | [A] | 5                           | 10   | 15 |
|                                  |             |            |                 |                   |                  |              |    | <b>Relays for railroad industry</b> |                                       |                  |             |     |                             |      |    |
|                                  |             |            |                 |                   |                  |              |    |                                     | RM84                                  | 2 CO, 2 NO       |             | 8 A |                             |      |    |
|                                  |             |            |                 |                   |                  |              |    |                                     | RM85                                  | 1 CO, 1 NO       |             |     |                             | 16 A |    |
|                                  |             |            |                 |                   |                  |              |    |                                     | R2T                                   | 2 CO             |             |     | 12 A                        |      |    |
|                                  |             |            |                 |                   |                  |              |    |                                     | R3T                                   | 3 CO             |             |     | 10 A                        |      |    |
|                                  |             |            |                 |                   |                  |              |    |                                     | R4T                                   | 4 CO             |             | 7 A |                             |      |    |
|                                  |             |            |                 |                   |                  |              |    |                                     | R15T - 2 CO                           | 2 CO             |             |     | 10 A                        |      |    |
|                                  |             |            |                 |                   |                  |              |    |                                     | R15T - 3 CO                           | 3 CO             |             |     | 10 A                        |      |    |
|                                  |             |            |                 |                   |                  |              |    |                                     | RUCT                                  | 3 CO, 3 NO       |             |     |                             | 16 A |    |
|                                  |             |            |                 |                   |                  |              |    |                                     | RUCT-M                                | 1 NO, 2 NO       |             |     |                             | 16 A |    |
|                                  |             |            |                 |                   |                  |              |    |                                     | PI84T with socket GZT80-V0            | 2 CO             |             | 8 A |                             |      |    |
|                                  |             |            |                 |                   |                  |              |    |                                     | PI85T with socket GZT80-V0            | 1 CO             |             |     |                             | 16 A | ④  |
|                                  |             |            |                 |                   |                  |              |    |                                     | PIR2T with socket GZT2-V0             | 2 CO             |             |     | 12 A                        |      |    |
|                                  |             |            |                 |                   |                  |              |    |                                     | PIR3T with socket GZT3-V0             | 3 CO             |             |     | 10 A                        |      |    |
|                                  |             |            |                 |                   |                  |              |    |                                     | PIR4T with socket GZT4-V0             | 4 CO             |             | 7 A |                             |      |    |
|                                  |             |            |                 |                   |                  |              |    |                                     | PIR152T with socket PZ8-V0            | 2 CO             |             |     | 10 A                        |      |    |
|                                  |             |            |                 |                   |                  |              |    |                                     | PIR153T with socket PZ11-V0           | 3 CO             |             |     | 10 A                        |      |    |
|                                  |             |            |                 |                   |                  |              |    |                                     | PRUCT with socket GUC11S-V0           | 3 CO, 3 NO       |             |     |                             | 16 A |    |
|                                  |             |            |                 |                   |                  |              |    |                                     | PRUCT-M with socket GUC11S-V0         | 1 NO, 2 NO       |             |     |                             | 16 A |    |
|                                  |             |            |                 |                   |                  |              |    |                                     | MT-W...M                              | 1 CO             |             |     | 10 A                        |      |    |
| <b>Programmable relays</b>       |             |            |                 |                   |                  |              |    |                                     |                                       |                  |             |     |                             |      |    |
|                                  |             |            |                 |                   |                  |              |    |                                     | NEED-...-08-4R-                       | 4 NO             |             |     | 10 A                        |      |    |
|                                  |             |            |                 |                   |                  |              |    |                                     | NEED-...-08-4T-                       | 4 NO             | 0,5 A       |     |                             |      |    |
|                                  |             |            |                 |                   |                  |              |    |                                     | NEED-...-16-8R-                       | 8 NO             |             |     | 10 A                        |      |    |
|                                  |             |            |                 |                   |                  |              |    |                                     | NEED-...-16-8T-                       | 8 NO             | 0,5 A       |     |                             |      |    |
|                                  |             |            |                 |                   |                  |              |    |                                     | NEED-MODBUS                           |                  |             |     |                             |      |    |
| <b>Installation relays</b>       |             |            |                 |                   |                  |              |    |                                     |                                       |                  |             |     |                             |      |    |
|                                  |             |            |                 |                   |                  |              |    |                                     | RPI-.P-...                            | 1 CO, 2 CO       |             |     | 2 CO: 8 A, 1 CO: 16 A       |      |    |
|                                  |             |            |                 |                   |                  |              |    |                                     | RPI-.Z-...                            | 1 NO, 2 NO       |             |     | 2 NO: 8 A, 1 NO: 16 A       |      |    |
|                                  |             |            |                 |                   |                  |              |    |                                     | RPI-1ZI-D12                           | 1 NO             |             |     | 16 A                        |      |    |
|                                  |             |            |                 |                   |                  |              |    |                                     | RPI-1ZI-U24A                          | 1 NO             |             |     | 16 A                        |      |    |
|                                  |             |            |                 |                   |                  |              |    |                                     | RPI-.P-UNI                            | 1 CO, 2 CO, 3 CO |             |     | 2 CO, 3 CO: 8 A, 1 CO: 16 A |      |    |
|                                  |             |            |                 |                   |                  |              |    |                                     | RPI-.Z-UNI                            | 1 NO, 2 NO, 3 NO |             |     | 2 NO, 3 NO: 8 A, 1 NO: 16 A |      |    |
| <b>Bistable - impulse relays</b> |             |            |                 |                   |                  |              |    |                                     |                                       |                  |             |     |                             |      |    |
|                                  |             |            |                 |                   |                  |              |    |                                     | RPB-1P-...                            | 1 CO             |             |     | 16 A                        |      |    |
|                                  |             |            |                 |                   |                  |              |    |                                     | RPB-1PM-...                           | 1 CO             |             |     | 16 A                        |      |    |
|                                  |             |            |                 |                   |                  |              |    |                                     | RPB-2Z-...                            | 2 NO             | 8 A         |     |                             |      |    |
|                                  |             |            |                 |                   |                  |              |    |                                     | RPB-1ZI-...                           | 1 NO             |             |     | 16 A                        |      |    |
|                                  |             |            |                 |                   |                  |              |    |                                     | RPB-1PM-UNI                           | 1 CO             |             |     | 16 A                        |      |    |
|                                  |             |            |                 |                   |                  |              |    |                                     | RPB-1ZMI-UNI                          | 1 NO             |             |     | 16 A                        |      |    |
|                                  |             |            |                 |                   |                  |              |    |                                     | RPB-2PSM-UNI                          | 2 x 1 CO         |             |     | 16 A                        |      |    |
|                                  |             |            |                 |                   |                  |              |    |                                     | RPB-2ZSMI-UNI                         | 2 x 1 NO         |             |     | 16 A                        |      |    |

④ See [www.repol.com.pl](http://www.repol.com.pl)

How to use the table and the ordering code structure - see page 4.

## Selection table

| Electrical terminals     |             |            |                 |                   | Coil / input     |    | Type | Number and type of contacts / outputs | Rated current |       |             |                       |      |    |    |
|--------------------------|-------------|------------|-----------------|-------------------|------------------|----|------|---------------------------------------|---------------|-------|-------------|-----------------------|------|----|----|
| for PCB                  | for sockets | connectors | screw terminals | Push-in terminals | spring terminals | AC |      |                                       | DC            | AC/DC | bistable DC | [A]                   | 5    | 10 | 15 |
| <b>Time relays</b>       |             |            |                 |                   |                  |    |      |                                       |               |       |             |                       |      |    |    |
|                          |             |            |                 |                   |                  |    |      | MT-W...M                              | 1 CO          |       |             | 10 A                  |      |    |    |
|                          |             |            |                 |                   |                  |    |      | RPC-.MA-...                           | 1 CO, 2 CO    |       |             | 2 CO: 8 A, 1 CO: 16 A |      |    |    |
|                          |             |            |                 |                   |                  |    |      | RPC-.MB-...                           | 1 CO, 2 CO    |       |             | 2 CO: 8 A, 1 CO: 16 A |      |    |    |
|                          |             |            |                 |                   |                  |    |      | RPC-2A-UNI                            | 2 CO          |       |             | 8 A                   |      |    |    |
|                          |             |            |                 |                   |                  |    |      | RPC-1MC-UNI                           | 1 CO          |       |             |                       | 16 A |    |    |
|                          |             |            |                 |                   |                  |    |      | RPC-.MD-UNI                           | 1 CO, 3 CO    |       |             | 3 CO: 8 A, 1 CO: 16 A |      |    |    |
|                          |             |            |                 |                   |                  |    |      | RPC-1ER-...                           | 1 CO          |       |             |                       | 16 A |    |    |
|                          |             |            |                 |                   |                  |    |      | RPC-1EA-...                           | 1 CO          |       |             |                       | 16 A |    |    |
|                          |             |            |                 |                   |                  |    |      | RPC-1ES-...                           | 1 CO          |       |             |                       | 16 A |    |    |
|                          |             |            |                 |                   |                  |    |      | RPC-1EU-...                           | 1 CO          |       |             |                       | 16 A |    |    |
|                          |             |            |                 |                   |                  |    |      | RPC-1IP-...                           | 1 CO          |       |             |                       | 16 A |    |    |
|                          |             |            |                 |                   |                  |    |      | RPC-1SA-...                           | 1 CO          |       |             |                       | 16 A |    |    |
|                          |             |            |                 |                   |                  |    |      | RPC-1WT-...                           | 1 CO          |       |             |                       | 16 A |    |    |
|                          |             |            |                 |                   |                  |    |      | RPC-.E-...                            | 1 CO, 2 CO    |       |             | 2 CO: 8 A, 1 CO: 16 A |      |    |    |
|                          |             |            |                 |                   |                  |    |      | RPC-.WU-...                           | 1 CO, 2 CO    |       |             | 2 CO: 8 A, 1 CO: 16 A |      |    |    |
|                          |             |            |                 |                   |                  |    |      | RPC-.BP-...                           | 1 CO, 2 CO    |       |             | 2 CO: 8 A, 1 CO: 16 A |      |    |    |
|                          |             |            |                 |                   |                  |    |      | RPC-2SD-UNI                           | 2 CO          |       |             | 8 A                   |      |    |    |
|                          |             |            |                 |                   |                  |    |      | RPC-1AS-A230                          | 1 NO          |       |             |                       | 16 A |    |    |
|                          |             |            |                 |                   |                  |    |      | TR4N 1 CO                             | 1 CO          |       |             |                       | 16 A |    |    |
|                          |             |            |                 |                   |                  |    |      | TR4N 2 CO                             | 2 CO          |       |             | 8 A                   |      |    |    |
|                          |             |            |                 |                   |                  |    |      | TR4N 4 CO                             | 4 CO          |       |             | 6 A                   |      |    |    |
|                          |             |            |                 |                   |                  |    |      | T-R4                                  | 4 CO          |       |             | 6 A                   |      |    |    |
|                          |             |            |                 |                   |                  |    |      | PIR15...T<br>with time module COM3    | 2 CO, 3 CO    |       |             | 10 A                  |      |    |    |
|                          |             |            |                 |                   |                  |    |      | COM3                                  |               |       |             |                       |      |    |    |
| <b>Monitoring relays</b> |             |            |                 |                   |                  |    |      |                                       |               |       |             |                       |      |    |    |
|                          |             |            |                 |                   |                  |    |      | RPN-1VF-A400                          | 1 CO          |       |             |                       | 12 A |    |    |
|                          |             |            |                 |                   |                  |    |      | RPN-1VFS-A400                         | 1 CO          |       |             |                       | 12 A |    |    |
|                          |             |            |                 |                   |                  |    |      | RPN-1VFR-A400                         | 1 CO          |       |             |                       | 12 A |    |    |
|                          |             |            |                 |                   |                  |    |      | RPN-1VFT-A400                         | 1 CO          |       |             |                       | 12 A |    |    |
|                          |             |            |                 |                   |                  |    |      | RPN-1A...A230                         | 1 CO          |       |             |                       | 12 A |    |    |
|                          |             |            |                 |                   |                  |    |      | RPN-1TMP-A230                         | 1 CO          |       |             |                       | 12 A |    |    |
|                          |             |            |                 |                   |                  |    |      | RPN-1AT-A230                          | 1 CO          |       |             |                       | 12 A |    |    |
|                          |             |            |                 |                   |                  |    |      | MR-EU1W1P                             | 1 CO          |       |             | 5 A                   |      |    |    |
|                          |             |            |                 |                   |                  |    |      | MR-EU31UW1P                           | 1 CO          |       |             | 5 A                   |      |    |    |
|                          |             |            |                 |                   |                  |    |      | MR-EU3M1P                             | 1 CO          |       |             | 5 A                   |      |    |    |
|                          |             |            |                 |                   |                  |    |      | MR-EI1W1P                             | 1 CO          |       |             | 5 A                   |      |    |    |
|                          |             |            |                 |                   |                  |    |      | MR-ET1P                               | 1 CO          |       |             | 5 A                   |      |    |    |



## Selection table

| Electrical terminals           |             |            |                 |                   |                  | Coil / input |    |       |             | Type          | Number and type of contacts / outputs | Rated current        |   |    |    |                      |      |
|--------------------------------|-------------|------------|-----------------|-------------------|------------------|--------------|----|-------|-------------|---------------|---------------------------------------|----------------------|---|----|----|----------------------|------|
| for PCB                        | for sockets | connectors | screw terminals | Push-in terminals | spring terminals | AC           | DC | AC/DC | bistable DC |               |                                       | [A]                  | 5 | 10 | 20 | 40                   | 60   |
| <b>Monitoring relays</b>       |             |            |                 |                   |                  |              |    |       |             |               |                                       |                      |   |    |    |                      |      |
|                                |             |            |                 |                   |                  |              |    |       |             | MR-GU32P-TR2  | 2 CO                                  | 3 A / 5 A ③          |   |    |    |                      |      |
|                                |             |            |                 |                   |                  |              |    |       |             | MR-GU3M2P-TR2 | 2 CO                                  | 3 A / 5 A ③          |   |    |    |                      |      |
|                                |             |            |                 |                   |                  |              |    |       |             | MR-GU3M2P     | 2 CO                                  | 3 A / 5 A ③          |   |    |    |                      |      |
|                                |             |            |                 |                   |                  |              |    |       |             | MR-GI1M2P-TR2 | 2 CO                                  | 3 A / 5 A ③          |   |    |    |                      |      |
|                                |             |            |                 |                   |                  |              |    |       |             | MR-GT2P-TR2   | 2 CO                                  | 3 A / 5 A ③          |   |    |    |                      |      |
| <b>Signal lamps</b>            |             |            |                 |                   |                  |              |    |       |             |               |                                       |                      |   |    |    |                      |      |
|                                |             |            |                 |                   |                  |              |    |       |             | RLK-1.        |                                       |                      |   |    |    |                      |      |
|                                |             |            |                 |                   |                  |              |    |       |             | RLK-3.        |                                       |                      |   |    |    |                      |      |
| <b>Solid state relays</b>      |             |            |                 |                   |                  |              |    |       |             |               |                                       |                      |   |    |    |                      |      |
|                                |             |            |                 |                   |                  |              |    |       |             | RSR30         |                                       | 1 A, 2 A, 2.5 A, 4 A |   |    |    |                      |      |
|                                |             |            |                 |                   |                  |              |    |       |             | RSR32         |                                       | 2 A                  |   |    |    |                      |      |
|                                |             |            |                 |                   |                  |              |    |       |             | RSR35         |                                       | 0,1 A, 3 A, 4 A      |   |    |    |                      |      |
|                                |             |            |                 |                   |                  |              |    |       |             | RSR52         |                                       |                      |   |    |    | 10, 25, 40, 60, 80 A |      |
|                                |             |            |                 |                   |                  |              |    |       |             | RSR62         |                                       |                      |   |    |    | 25, 40, 60, 80 A     |      |
|                                |             |            |                 |                   |                  |              |    |       |             | RSR72         |                                       |                      |   |    |    | 10, 20, 30, 40, 75 A |      |
| <b>Installation contactors</b> |             |            |                 |                   |                  |              |    |       |             |               |                                       |                      |   |    |    |                      |      |
|                                |             |            |                 |                   |                  |              |    |       |             | RIK20         | 2 NO, 1 NO + 1 NC, 2 NC               |                      |   |    |    | 20 A                 |      |
|                                |             |            |                 |                   |                  |              |    |       |             | RIK25         | 4 NO, 3 NO + 1 NC, 2 NO + 2 NC        |                      |   |    |    | 25 A                 |      |
|                                |             |            |                 |                   |                  |              |    |       |             | RIK40         | 4 NO, 3 NO + 1 NC, 2 NO + 2 NC, 4 NC  |                      |   |    |    | 40 A                 |      |
|                                |             |            |                 |                   |                  |              |    |       |             | RIK63         | 4 NO, 3 NO + 1 NC, 2 NO + 2 NC        |                      |   |    |    |                      | 63 A |
|                                |             |            |                 |                   |                  |              |    |       |             | RIKN          | 2 NO, 1 NO + 1 NC                     |                      |   |    |    | 6 A                  |      |
|                                |             |            |                 |                   |                  |              |    |       |             | RIK21         | 3 NO + 1 NO, 3 NO + 1 NC              |                      |   |    |    | 20 A                 |      |
| <b>Power supplies</b>          |             |            |                 |                   |                  |              |    |       |             |               |                                       |                      |   |    |    |                      |      |
|                                |             |            |                 |                   |                  |              |    |       |             | RZI10-12-M    |                                       | 0,83 A               |   |    |    |                      |      |
|                                |             |            |                 |                   |                  |              |    |       |             | RZI10-24-M    |                                       | 0,42 A               |   |    |    |                      |      |
|                                |             |            |                 |                   |                  |              |    |       |             | RZI30-12-M    |                                       | 2,1 A                |   |    |    |                      |      |
|                                |             |            |                 |                   |                  |              |    |       |             | RZI30-24-M    |                                       | 1,25 A               |   |    |    |                      |      |
|                                |             |            |                 |                   |                  |              |    |       |             | RZI60-12-M    |                                       | 4,5 A                |   |    |    |                      |      |
|                                |             |            |                 |                   |                  |              |    |       |             | RZI60-24-M    |                                       | 2,5 A                |   |    |    |                      |      |
|                                |             |            |                 |                   |                  |              |    |       |             | RZI100-24-M   |                                       | 3,8 A                |   |    |    |                      |      |
|                                |             |            |                 |                   |                  |              |    |       |             | RZI60-24-P    |                                       | 2,5 A                |   |    |    |                      |      |
|                                |             |            |                 |                   |                  |              |    |       |             | RZI120-24-P   |                                       | 5 A                  |   |    |    |                      |      |
|                                |             |            |                 |                   |                  |              |    |       |             | RZI240-24-P   |                                       |                      |   |    |    | 10 A                 |      |
|                                |             |            |                 |                   |                  |              |    |       |             | RZI480-24-P   |                                       |                      |   |    |    | 20 A                 |      |
|                                |             |            |                 |                   |                  |              |    |       |             | RZI-20R       |                                       |                      |   |    |    | 20 A                 |      |
|                                |             |            |                 |                   |                  |              |    |       |             | RZI-40R       |                                       |                      |   |    |    | 40 A                 |      |
|                                |             |            |                 |                   |                  |              |    |       |             | RZI-20B       |                                       |                      |   |    |    | 20 A                 |      |
|                                |             |            |                 |                   |                  |              |    |       |             | RZI-40B       |                                       |                      |   |    |    | 40 A                 |      |
|                                |             |            |                 |                   |                  |              |    |       |             | RZI-40UPS     |                                       |                      |   |    |    | 40 A                 |      |

③ 3 A - if the distance between the relays mounted side by side is less than 5 mm; 5 A - if the distance between the relays mounted side by side is greater than 5 mm.  
How to use the table and the ordering code structure - see page 4.

## Mounting options

| Type                          | Method of mounting  |                   |                                |                                      |
|-------------------------------|---------------------|-------------------|--------------------------------|--------------------------------------|
|                               | For PCB mounting    | On panel mounting | 35 mm rail mount<br>(EN 60715) | Flat insert - faston<br>(connectors) |
| <b>Relays for electronics</b> |                     |                   |                                |                                      |
| RSM850                        | direct              | –                 | –                              | –                                    |
| RSM850B                       | direct              | –                 | –                              | –                                    |
| RSM822N                       | direct              | –                 | –                              | –                                    |
| RSM954N                       | direct              | –                 | –                              | –                                    |
| RSM957N                       | direct              | –                 | –                              | –                                    |
| RM12                          | direct              | –                 | –                              | –                                    |
| RM12N                         | direct              | –                 | –                              | –                                    |
| RM32N                         | direct              | –                 | –                              | –                                    |
| RM40                          | direct              | –                 | –                              | –                                    |
| RM45N                         | direct              | –                 | –                              | –                                    |
| RM50N                         | direct              | –                 | –                              | –                                    |
| RM51                          | direct              | –                 | –                              | –                                    |
| RM84                          | direct, with socket | with socket       | with socket                    | –                                    |
| RM85                          | direct, with socket | with socket       | with socket                    | –                                    |
| RM85 Ⓢ                        | direct              | –                 | –                              | –                                    |
| RM85 inrush                   | direct, with socket | with socket       | with socket                    | –                                    |
| RM85 105 °C sensitive         | direct, with socket | with socket       | with socket                    | –                                    |
| RM85 faston                   | direct              | –                 | –                              | 6,3 x 0,8 mm                         |
| RM87                          | direct, with socket | with socket       | with socket                    | –                                    |
| RM87 sensitive                | direct, with socket | with socket       | with socket                    | –                                    |
| RM96 1 CO                     | direct              | with socket       | with socket                    | –                                    |
| RM96 1 NO, 1 NC               | direct              | –                 | –                              | –                                    |
| RM699BV                       | direct, with socket | –                 | with socket                    | –                                    |
| RM699BH                       | direct              | –                 | –                              | –                                    |
| RM83                          | direct, with socket | –                 | –                              | –                                    |
| RMP84                         | with socket         | with socket       | with socket                    | –                                    |
| RMP85                         | with socket         | with socket       | with socket                    | –                                    |
| RA2 Ⓢ                         | direct              | –                 | –                              | –                                    |

Ⓢ RM85 for switching higher voltages Ⓢ RA2 - automotive relays

## Mounting options

| Type                          | Method of mounting  |                         |                             |  |                                   |
|-------------------------------|---------------------|-------------------------|-----------------------------|--|-----------------------------------|
|                               | For PCB mounting    | On panel mounting       | 35 mm rail mount (EN 60715) | Cover with mounting flange - on panel mounting | Flat insert - faston (connectors) |
| <b>Relays for industry</b>    |                     |                         |                             |  |                                   |
| R2N                           | with socket         | with socket             | with socket                 | –  | –                                 |
| R3N                           | –                   | with socket             | with socket                 | –  | –                                 |
| R4N                           | direct, with socket | with socket             | with socket                 | –  | –                                 |
| R2M                           | direct, with socket | with socket             | with socket                 | –  | –                                 |
| R15 - 2 CO                    | direct              | with socket             | with socket                 | –  | –                                 |
| R15 - 3 CO                    | direct              | with socket             | with socket                 | –  | –                                 |
| R15 - 4 CO                    | –                   | with socket ④           | with socket                 | –  | –                                 |
| RG25                          | –                   | –                       | direct                      | –  | –                                 |
| RUC faston 4,8x0,5            | direct              | with socket ④<br>direct | with socket ④<br>direct ⑤   | on request                                     | 4,8 x 0,5 mm                      |
| RUC faston 6,3x0,8            | –                   | direct                  | direct ⑤                    | on request                                     | 6,3 x 0,8 mm                      |
| RUC-M                         | direct              | with socket ④<br>direct | with socket ④<br>direct ⑤   | on request                                     | 4,8 x 0,5 mm                      |
| R20                           | –                   | direct                  | –                           | standard                                       | 6,3 x 0,8 mm                      |
| R30N                          | direct              | –                       | –                           | –  | –                                 |
| R40N                          | direct              | –                       | –                           | –  | –                                 |
| PI84 with socket GZT80        | –                   | direct                  | direct                      | –  | –                                 |
| PI84 with socket GZM80        | –                   | direct                  | direct                      | –  | –                                 |
| PI84 with socket GZP80        | –                   | direct                  | direct                      | –  | –                                 |
| PI85 with socket GZT80        | –                   | direct                  | direct                      | –  | –                                 |
| PI85 with socket GZM80        | –                   | direct                  | direct                      | –  | –                                 |
| PI85 with socket GZP80        | –                   | direct                  | direct                      | –  | –                                 |
| PI85 inrush with socket GZT80 | –                   | direct                  | direct                      | –  | –                                 |
| PI84P with socket GZP80       | –                   | direct                  | direct                      | –  | –                                 |
| PI85P with socket GZP80       | –                   | direct                  | direct                      | –  | –                                 |
| PIR2 with socket GZM2         | –                   | direct                  | direct                      | –  | –                                 |
| PIR2 with socket GZP4         | –                   | direct                  | direct                      | –  | –                                 |
| PIR3 with socket GZM3         | –                   | direct                  | direct                      | –  | –                                 |
| PIR4 with socket GZM4         | –                   | direct                  | direct                      | –  | –                                 |
| PIR4 with socket GZP4         | –                   | direct                  | direct                      | –  | –                                 |
| PI6-1P                        | –                   | –                       | direct                      | –  | –                                 |
| PI6-1T                        | –                   | –                       | direct                      | –  | –                                 |
| PIR6W-1P-...                  | –                   | –                       | direct                      | –  | –                                 |
| PIR6W-1PS-...                 | –                   | –                       | direct                      | –  | –                                 |
| PIR6WB-1PS-...                | –                   | –                       | direct                      | –  | –                                 |
| SIR6W-...                     | –                   | –                       | direct                      | –  | –                                 |
| SIR6WB-...                    | –                   | –                       | direct                      | –  | –                                 |

④ Available sockets for connection behind panel mounting - GZ14Z, GZ14P ⑤ For RUC faston 4,8 x 0,5 and RUC-M, with GUC11S-V0 socket, max. switching voltages and coil voltages of relays are limited to 250 V AC / DC ⑥ Version with adaptor (V) or (H) ⑦ Relay integrated with heatsink



## Mounting options

| Type                                   | Method of mounting     |                         |                             |  |                                   |
|--|------------------------|-------------------------|-----------------------------|--|-----------------------------------|
|  | For PCB mounting       | On panel mounting       | 35 mm rail mount (EN 60715) | Cover with mounting flange - on panel mounting | Flat insert - faston (connectors) |
| <b>Relays for photovoltaic systems</b> |                        |                         |                             |  |                                   |
| RS35                                   | direct                 | –                       | –                           | –  | –                                 |
| RS50                                   | direct                 | –                       | –                           | –  | –                                 |
| RS80                                   | direct                 | –                       | –                           | –  | –                                 |
| RG25                                   | –                      | –                       | direct                      | –  | –                                 |
| RUC faston 4,8x0,5                     | direct                 | with socket ④<br>direct | with socket ④<br>direct ⑤   | on request                                     | 4,8 x 0,5 mm                      |
| RUC faston 6,3x0,8                     | –                      | direct                  | direct ⑤                    | on request                                     | 6,3 x 0,8 mm                      |
| RUC-M                                  | direct                 | with socket ④<br>direct | with socket ④<br>direct ⑤   | on request                                     | 4,8 x 0,5 mm                      |
| <b>Relays for railroad industry</b>    |                        |                         |                             |  |                                   |
| RM84                                   | –                      | with socket             | with socket                 | –  | –                                 |
| RM85                                   | –                      | with socket             | with socket                 | –  | –                                 |
| R2T                                    | –                      | with socket             | with socket                 | –  | –                                 |
| R3T                                    | –                      | with socket             | with socket                 | –  | –                                 |
| R4T                                    | –                      | with socket             | with socket                 | –  | –                                 |
| R15T - 2 CO                            | –                      | with socket             | with socket                 | –  | –                                 |
| R15T - 3 CO                            | –                      | with socket             | with socket                 | –  | –                                 |
| RUCT                                   | –                      | –                       | with socket                 | –  | –                                 |
| RUCT-M                                 | –                      | –                       | with socket                 | –  | –                                 |
| PI84T with socket GZT80-V0             | –                      | direct                  | direct                      | –  | –                                 |
| PI85T with socket GZT80-V0             | –                      | direct                  | direct                      | –  | –                                 |
| PIR2T with socket GZT2-V0              | –                      | direct                  | direct                      | –  | –                                 |
| PIR3T with socket GZT3-V0              | –                      | direct                  | direct                      | –  | –                                 |
| PIR4T with socket GZT4-V0              | –                      | direct                  | direct                      | –  | –                                 |
| PIR152T with socket PZ8-V0             | –                      | direct                  | direct                      | –  | –                                 |
| PIR153T with socket PZ11-V0            | –                      | direct                  | direct                      | –  | –                                 |
| PRUCT with socket GUC11S-V0            | –                      | –                       | direct                      | –  | –                                 |
| PRUCT-M with socket GUC11S-V0          | –                      | –                       | direct                      | –  | –                                 |
| MT-W...M                               | –                      | –                       | direct                      | –  | –                                 |
| <b>Programmable relays</b>             |                        |                         |                             |  |                                   |
| NEED-...-08-4...                       | –                      | direct                  | direct                      | –  | –                                 |
| NEED-...-16-8...                       | –                      | direct                  | direct                      | –  | –                                 |
| NEED-MODBUS                            | –                      | –                       | direct                      | –  | –                                 |
| <b>Solid state relays</b>              |                        |                         |                             |  |                                   |
| RSR30                                  | direct,<br>with socket | –                       | with socket                 | –  | –                                 |
| RSR32                                  | direct                 | –                       | –                           | –  | –                                 |
| RSR35                                  | direct                 | –                       | –                           | –  | –                                 |
| RSR52                                  | –                      | with heatsink<br>direct | with heatsink               | –  | –                                 |
| RSR62                                  | –                      | with heatsink           | with heatsink               | –  | –                                 |
| RSR72                                  | –                      | –                       | direct ⑥                    | –  | –                                 |

## Mounting options

| Type                             | Method of mounting             |  |
|----------------------------------|--------------------------------|--|
|                                  | 35 mm rail mount<br>(EN 60715) |  |
| <b>Installation relays</b>       |                                |  |
| RPI-P-...                        | direct                         |  |
| RPI-Z-...                        | direct                         |  |
| RPI-1ZI-D12                      | direct                         |  |
| RPI-1ZI-U24A                     | direct                         |  |
| RPI-P-UNI                        | direct                         |  |
| RPI-Z-UNI                        | direct                         |  |
| <b>Bistable - impulse relays</b> |                                |  |
| RPB-1P-...                       | direct                         |  |
| RPB-1PM-...                      | direct                         |  |
| RPB-2Z-...                       | direct                         |  |
| RPB-1ZI-...                      | direct                         |  |
| RPB-1PM-UNI                      | direct                         |  |
| RPB-1ZMI-UNI                     | direct                         |  |
| RPB-2PSM-UNI                     | direct                         |  |
| RPB-2ZSMI-UNI                    | direct                         |  |
| <b>Monitoring relays</b>         |                                |  |
| RPN-1VF-A400                     | direct                         |  |
| RPN-1VFS-A400                    | direct                         |  |
| RPN-1VFR-A400                    | direct                         |  |
| RPN-1VFT-A400                    | direct                         |  |
| RPN-1A..-A230                    | direct                         |  |
| RPN-1TMP-A230                    | direct                         |  |
| RPN-1AT-A230                     | direct                         |  |
| MR-EU1W1P                        | direct                         |  |
| MR-EU31UW1P                      | direct                         |  |
| MR-EU3M1P                        | direct                         |  |
| MR-EI1W1P                        | direct                         |  |
| MR-ET1P                          | direct                         |  |
| MR-GU32P-TR2                     | direct                         |  |
| MR-GU3M2P-TR2                    | direct                         |  |
| MR-GU3M2P                        | direct                         |  |
| MR-GI1M2P-TR2                    | direct                         |  |
| MR-GT2P-TR2                      | direct                         |  |
| <b>Signal lamps</b>              |                                |  |
| RLK-1.                           | direct                         |  |
| RLK-3.                           | direct                         |  |
| <b>Installation contactors</b>   |                                |  |
| RIK20                            | direct                         |  |
| RIK25                            | direct                         |  |
| RIK40                            | direct                         |  |
| RIK63                            | direct                         |  |
| RIKN                             | direct                         |  |
| RIK21                            | direct                         |  |

| Type                               | Method of mounting |                                |
|------------------------------------|--------------------|--------------------------------|
|                                    | On panel mounting  | 35 mm rail mount<br>(EN 60715) |
| <b>Time relays</b>                 |                    |                                |
| MT-W...M                           | –                  | direct                         |
| RPC-.MA-...                        | –                  | direct                         |
| RPC-.MB-...                        | –                  | direct                         |
| RPC-2A-UNI                         | –                  | direct                         |
| RPC-1MC-UNI                        | –                  | direct                         |
| RPC-.MD-UNI                        | –                  | direct                         |
| RPC-1ER-...                        | –                  | direct                         |
| RPC-1EA-...                        | –                  | direct                         |
| RPC-1ES-...                        | –                  | direct                         |
| RPC-1EU-...                        | –                  | direct                         |
| RPC-1IP-...                        | –                  | direct                         |
| RPC-1SA-...                        | –                  | direct                         |
| RPC-1WT-...                        | –                  | direct                         |
| RPC-.E-...                         | –                  | direct                         |
| RPC-.WU-...                        | –                  | direct                         |
| RPC-.BP-...                        | –                  | direct                         |
| RPC-2SD-UNI                        | –                  | direct                         |
| RPC-1AS-A230                       | –                  | direct                         |
| TR4N 1 CO                          | –                  | direct                         |
| TR4N 2 CO                          | –                  | direct                         |
| TR4N 4 CO                          | –                  | direct                         |
| T-R4                               | with socket        | with socket                    |
| PIR15...T with time<br>module COM3 | direct             | direct                         |
| COM3                               | with socket        | with socket                    |
| <b>Power supplies</b>              |                    |                                |
| RZI10...-M                         | –                  | direct                         |
| RZI30...-M                         | direct             | direct                         |
| RZI60...-M                         | direct             | direct                         |
| RZI100-24-M                        | direct             | direct                         |
| RZI60-24-P                         | –                  | direct                         |
| RZI120-24-P                        | –                  | direct                         |
| RZI240-24-P                        | –                  | direct                         |
| RZI480-24-P                        | –                  | direct                         |
| RZI-.R                             | –                  | direct                         |
| RZI-.B                             | –                  | direct                         |
| RZI-40UPS                          | –                  | direct                         |

# Relays for electronics

## Subminiature - signal relays

- $I_n$  currents of contacts: 0,5 ... 3 A.
- Methods of mounting: THT, SMT  
- depending on the type of relay.

### Applications:

- telecommunication equipment,
- office equipment,
- measurement equipment and devices,
- medical apparatus and medical monitoring equipment,
- audiovisual equipment,
- driving simulators, flight simulators,
- slot machines,
- protection, monitoring and alarm equipment,
- industrial and consumer electronic goods.



|               |    |
|---------------|----|
| RSM850 .....  | 15 |
| RSM850B ..... | 15 |
| RSM822N ..... | 16 |
| RSM954N ..... | 16 |
| RSM957N ..... | 16 |





## Miniature relays

- $I_n$  currents of contacts: 5 ... 20 A.
- Methods of mounting: THT, in plug-in sockets  
- depending on the type of relay.

### Applications:

- general control of electrical equipment,
- equipment for air-conditioning, refrigeration products, heating, ventilation, lighting,
- protection, monitoring and alarm equipment,
- control systems and devices for household equipment,
- time relays and time switches,
- monitoring relays,
- temperature controllers,
- PLCs,
- electrical automation systems - industrial and power-engineering automation,
- equipment for smart buildings and equipment for automation of buildings,
- other.



## Bistable relays - subminiature

- $I_n$  currents of contacts: 0,5 A.
- Method of mounting: THT.

### Applications:




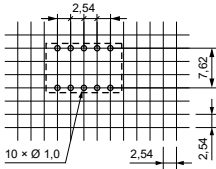
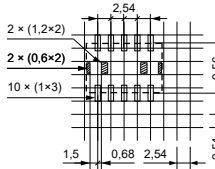
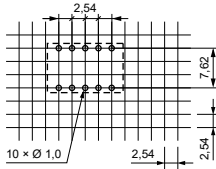
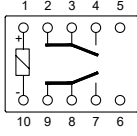
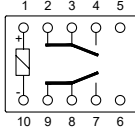
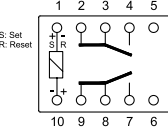



- for energy-saving control of electrical devices which are switched on and off with a change of the state of bistable relays via short supply of their coils,
- in electrical systems of battery-powered equipment,
- applications specified in description of subminiature relays.

|                         |    |
|-------------------------|----|
| RM12 .....              | 17 |
| RM12N .....             | 17 |
| RM32N .....             | 17 |
| RM40 .....              | 17 |
| RM45N .....             | 17 |
| RM50N .....             | 18 |
| RM51 .....              | 18 |
| RM84 .....              | 18 |
| RM85 .....              | 18 |
| RM85 - special .....    | 19 |
| RM85 inrush .....       | 19 |
| RM85 105°C sensitive .. | 19 |
| RM85 faston .....       | 19 |
| RM87 .....              | 20 |
| RM87 sensitive .....    | 20 |
| RM96 .....              | 20 |
| RM699B .....            | 20 |
| RM83 .....              | 21 |
| RMP84 .....             | 21 |
| RMP85 .....             | 21 |
| RA2 .....               | 21 |



# Relays for electronics

## subminiature - signal relays

| Type  | RSM850<br>version THT   | RSM850<br>version SMT   | RSM850B<br>bistable, 1 coil  |
|---|---|---|--|
|   |                    |                    |                    |
| <b>Contact data</b>   |   |   |  |
| Number and type of contacts                                     | 2 CO  | 2 CO  | 2 CO   |
| Contact material  | AgPd/Au ❶   | AgPd/Au ❶   | AgPd/Au ❶  |
| Rated / max. switching voltage AC                               | 125 V / 250 V   | 125 V / 250 V   | 125 V / 250 V  |
| Rated load AC1<br>DC1   | 0,5 A / 125 V AC<br>2 A / 30 V DC   | 0,5 A / 125 V AC<br>2 A / 30 V DC   | 0,5 A / 125 V AC<br>2 A / 30 V DC  |
| <b>Coil data</b>  |   |   |  |
| Rated voltage DC  | 3, 5, 6, 9, 12, 24 V  | 3, 5, 6, 9, 12, 24 V  | 3, 5, 6, 9, 12, 24 V   |
| <b>Insulation</b>   |   |   |  |
| Dielectric strength<br>• coil - contacts<br>• contact clearance | 1 000 V AC ❷<br>1 000 V AC ❷  | 1 000 V AC ❷<br>1 000 V AC ❷  | 1 000 V AC ❷<br>1 000 V AC ❷   |
| <b>General data</b>   |   |   |  |
| Dimensions mm   | 14,3 x 9,3 x 5,4  | 14,3 x 9,3 x 6,6  | 14,3 x 9,3 x 5,4   |
| Pinout<br>(solder side view)                                    | <br>version 2 CO | <br>version 2 CO | <br>version 2 CO |
| Connection diagrams<br>(pin side view)                          | <br>version 2 CO | <br>version 2 CO | <br>version 2 CO |
| Recognitions, certifications, directives                        | <br>RoHS         | <br>RoHS         | <br>RoHS        |

❶ Flash gold plating




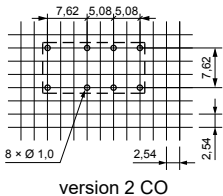
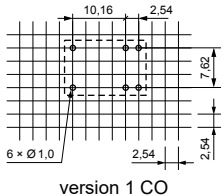
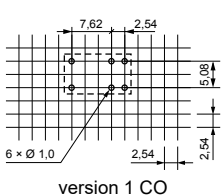
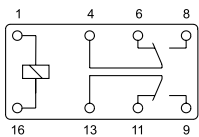
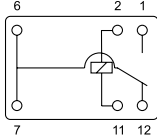
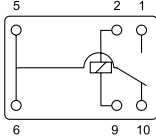



❷ Type of insulation: basic

❸ Type of clearance: micro-disconnection



# Relays for electronics

## subminiature - signal relays

| Type                                     | RSM822N   | RSM954N   | RSM957N   |
|--|---|---|---|
|  | sensitive coil<br> |                    | sensitive coil<br> |
| Contact data                             |   |   |   |
| Number and type of contacts              | 2 CO  | 1 CO  | 1 CO  |
| Contact material                         | AgNi/Au ①   | Ag/Au ①   | Ag/Au ①   |
| Rated / max. AC switching voltage        | 125 V / 250 V   | 125 V / 220 V   | 125 V / 220 V   |
| Rated load                               | AC1 0,6 A / 125 V AC<br>DC1 3 A / 30 V DC<br>DC1 2 A (NO/NC) / 30 V DC                              | 3 A / 125 V AC<br>3 A / 30 V DC   | 0,5 A / 125 V AC<br>1 A / 30 V DC   |
| Coil data                                |   |   |   |
| Rated voltage DC                         | 3, 5, 6, 9, 12, 24 V<br>(48 V standard)   | 3, 5, 6, 9, 12, 24 V  | 3, 5, 6, 9, 12, 24 V  |
| Insulation                               |   |   |   |
| Insulation rated voltage                 |   |   |   |
| Dielectric strength                      |   |   |   |
| • coil - contacts                        | 1 000 V AC ③  | 1 000 V AC ③  | 1 000 V AC ③  |
| • contact clearance                      | 1 000 V AC ④  | 500 V AC ⑤  | 400 V AC ⑤  |
| General data                             |   |   |   |
| Dimensions mm                            | 20,5 x 10,2 x 12,5  | 15,5 x 11 x 11,5  | 12,5 x 7,5 x 10   |
| Pinout (solder side view)                | <br>version 2 CO | <br>version 1 CO | <br>version 1 CO  |
| Connection diagrams (pin side view)      | <br>version 2 CO | <br>version 1 CO | <br>version 1 CO  |
| Recognitions, certifications, directives |                  |                  |                  |

① Flash gold plating  
② Hard gold plating

③ Type of insulation: basic  
④ Type of insulation: reinforced






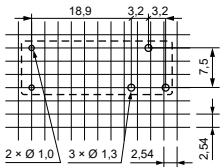
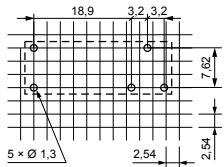
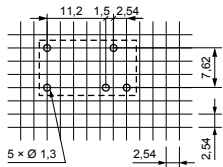
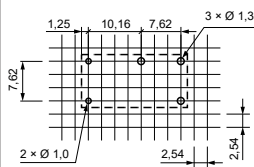
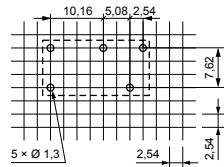
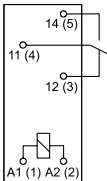
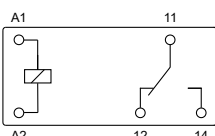
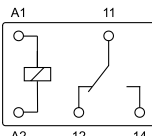
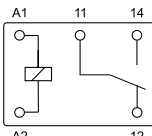
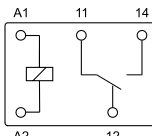





⑤ Type of clearance: micro-disconnection





# Relays for electronics



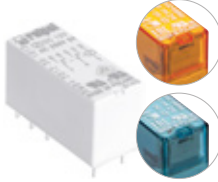
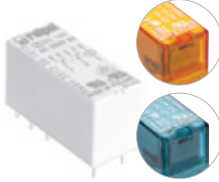
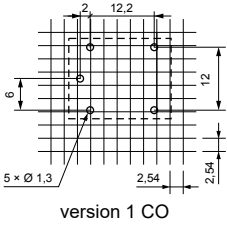
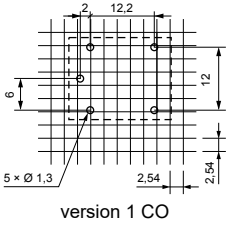
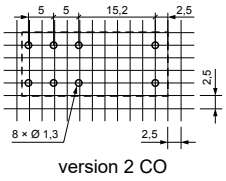
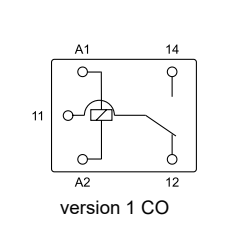
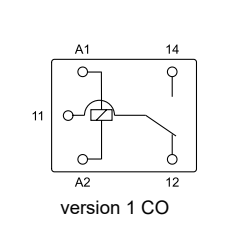
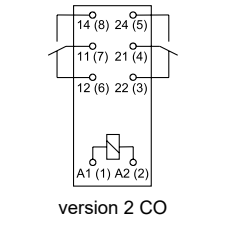

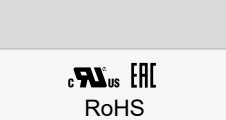
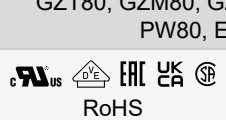

## miniature relays

| RM12  | RM12N   | RM32N   | RM40   | RM45N   |
|---|---|---|--|---|
|    |    |    |    |    |
| 1 CO, 1 NO  | 1 CO, 1 NO  | 1 CO, 1 NO  | 1 CO, 1 NO   | 1 CO, 1 NO  |
| AgNi, AgNi/Au Ⓢ, AgSnO <sub>2</sub> , AgSnO <sub>2</sub> /Au Ⓢ                      | AgNi, AgSnO <sub>2</sub>  | AgSnO <sub>2</sub>  | 1 CO: AgNi, AgNi/Au Ⓢ<br>1 NO: AgSnO <sub>2</sub>                                    | AgSnO <sub>2</sub>  |
| 250 V / 400 V   | 250 V / 440 V   | 250 V / 277 V   | 1 CO: 250 V / 380 V<br>1 NO: 250 V / 440 V   | 250 V / 277 V   |
| 8 A / 250 V AC<br>8 A / 24 V DC   | 1 NO: 10 A / 250 V AC<br>1 NO: 10 A / 30 V DC                                       | 1 NO: 5 A / 250 V AC<br>1 NO: 5 A / 28 V DC   | 1 NO: 8 A / 250 V AC<br>1 NO: 8 A / 30 V DC  | 1 NO: 5 A / 250 V AC<br>1 NO: 5 A / 28 V DC   |
| 5, 6, 9, 12, 18, 24, 48, 60 V   | 5, 9, 12, 18, 24, 48 V  | 5, 9, 12, 18, 24 V  | 3, 5, 6, 9, 12, 24, 48 V   | 5, 9, 12, 24 V  |
| 400 V AC  |   |   |  |   |
| 5 000 V AC Ⓢ<br>1 000 V AC Ⓢ  | 5 000 V AC Ⓢ<br>1 000 V AC Ⓢ  | 2 500 V AC Ⓢ<br>1 000 V AC Ⓢ  | 4 000 V AC Ⓢ<br>1 000 V AC Ⓢ   | 4 000 V AC Ⓢ<br>1 000 V AC Ⓢ  |
| 28,5 x 10,1 x 12,5  | 28,7 x 10,3 x 12,7  | 18,8 x 10,6 x 15,3  | 20 x 10 x 10,5   | 20,5 x 10,6 x 15,6  |
|  |  |  |  |  |
| version 1 CO  | version 1 CO  | version 1 CO  | version 1 CO   | version 1 CO  |
|  |  |  |  |  |
| version 1 CO  | version 1 CO  | version 1 CO  | version 1 CO   | version 1 CO  |
|  |  |  |  |  |



# Relays for electronics

## miniature relays

| Type                                     | RM50N   | RM51  | RM84   | RM85   |
|--|---|---|--|--|
|  |    |    |    |   |
| <b>Contact data</b>                      |   |   |  |  |
| Number and type of contacts              | 1 CO, 1 NO  | 1 CO, 1 NO  | 2 CO, 2 NO ②   | 1 CO, 1 NO ②   |
| Contact material                         | AgSnO <sub>2</sub> , AgCdO ①  | AgSnO <sub>2</sub>  | AgNi, AgNi/Au ②, AgSnO <sub>2</sub>  | AgNi, AgNi/Au ②, AgSnO <sub>2</sub>  |
| Rated / max. AC switching voltage        | 250 V / 277 V   | 250 V / 277 V   | 250 V / 400 V  | 250 V / 400 V  |
| Rated load (capacity)                    | AC1<br>AC15<br>DC1<br>DC13  | AC1<br>DC1  | AC1<br>DC1   | AC1<br>DC1   |
|  | 6 A / 250 V AC<br>12 A / 28 V DC  | 1 NO: 10 A / 250 V AC<br>1 NO: 10 A / 30 V DC                                       | 8 A / 250 V AC<br>3 A / 120 V (B300)<br>1,5 A / 240 V (B300)<br>8 A / 24 V DC ③<br>0,22 A / 120 V (R300)<br>0,1 A / 250 V (R300) | 16 A / 250 V AC<br>3 A / 120 V (B300)<br>1,5 A / 240 V (B300)<br>16 A / 24 V DC ③<br>0,22 A / 120 V (R300)<br>0,1 A / 250 V (R300) |
| Motor load                               |   | 1 NO: 0,75 kW ④   | 0,37 kW ④  | 0,5 kW ④   |
| <b>Coil data</b>                         |   |   |  |  |
| Rated voltage                            | AC  |   | 12, 24, 48, 60, 110, 115, 120, 220, 230, 240 V   | 12, 24, 48, 60, 110, 115, 120, 220, 230, 240 V   |
|  | DC  | 5, 9, 12, 24, 48 V  | 5, 9, 12, 24, 48 V   | 3, 5, 6, 9, 12, 18, 24, 36, 48, 60, 110 V  |
| <b>Insulation</b>                        |   |   |  |  |
| Insulation rated voltage                 |   |   | 400 V AC   | 400 V AC   |
| Dielectric strength                      |   |   |  |  |
| • coil - contacts                        | 1 500 V AC ⑤  | 2 500 V AC ⑤  | 5 000 V AC ⑤   | 5 000 V AC ⑤   |
| • contact clearance                      | 750 V AC ⑥  | 1 000 V AC ⑥  | 1 000 ⑤, 2 000 ② V AC  | 1 000 ⑤, 2 000 ② V AC  |
| <b>General data</b>                      |   |   |  |  |
| Dimensions                               | mm  | 19,5 x 15,6 x 15,3  | 19,5 x 16 x 17,1   | 29 x 12,7 x 15,7   |
| Pinout (solder side view)                |   |  |   |    |
|  |   | version 1 CO  | version 1 CO   | version 2 CO   |
| Connection diagrams (pin side view)      |   |  |   |    |
|  |   | version 1 CO  | version 1 CO   | version 2 CO   |
| Plug-in sockets for relays               |   |   | GZT80, GZM80, GZS80, GZF80, GZP80, PW80, EC 50, GD50   |  |
| Recognitions, certifications, directives |  |  |    |   |

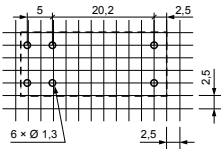
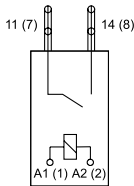

① Hard gold plating    ② Type of insulation: basic  
 ③ Type of clearance: micro-disconnection  
 ④ AC3 according to IEC 60947-4-1, 1-phase motor

⑤ Type of insulation: reinforced  
 ⑥ Type of clearance: full-disconnection  
 ⑦ Diagram: www.relpol.com.pl



# Relays for electronics

## miniature relays





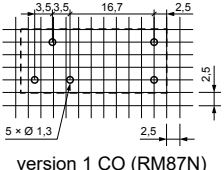
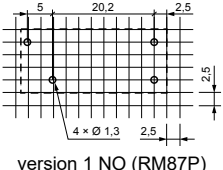
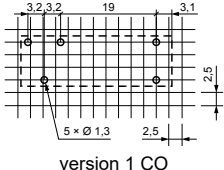
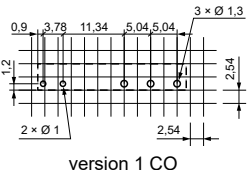
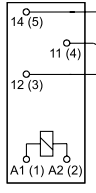
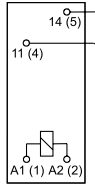
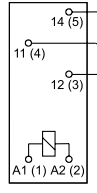
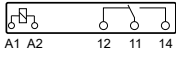




| RM85 - special   | RM85 inrush  | RM85 105°C sensitive   | RM85 faston  |
|--|--|--|--|
| for switching higher voltages<br>                                 | 80 A / 20 ms<br>                                  | sensitive coil<br>                                | vertical version (V)<br>                       |
| 1 NO   | 1 NO   | 1 NO   | 1 NO   |
| AgSnO <sub>2</sub>   | AgSnO <sub>2</sub>   | AgNi, AgNi/Au ②, AgSnO <sub>2</sub>  | AgSnO <sub>2</sub>   |
| 250 V / 480 V  | 250 V / 400 V  | 250 V / 400 V  | 250 V / 400 V  |
| 5 A / 480 V AC<br>16 A / 250 V AC<br>3 A / 120 V (B300)<br>1,5 A / 240 V (B300)<br>16 A / 24 V DC<br>0,22 A / 120 V (R300)<br>0,1 A / 250 V (R300) | 16 A / 250 V AC<br>3 A / 120 V (B300)<br>1,5 A / 240 V (B300)<br>16 A / 24 V DC ③<br>0,22 A / 120 V (R300)<br>0,1 A / 250 V (R300) | 16 A / 250 V AC<br>3 A / 120 V (B300)<br>1,5 A / 240 V (B300)<br>16 A / 24 V DC ③<br>0,22 A / 120 V (R300)<br>0,1 A / 250 V (R300) | 20 A / 250 V AC<br>3 A / 120 V (B300)<br>1,5 A / 240 V (B300)<br>20 A / 24 V DC<br>0,22 A / 120 V (R300)<br>0,1 A / 250 V (R300) |
| 0,5 kW ④   | 0,75 kW ④  | 0,5 kW ④   | 0,5 kW ④   |
| 3, 5, 6, 9, 12, 18, 24, 36, 48, 60, 110 V  | 3, 5, 6, 9, 12, 18, 24, 36, 48, 60, 110 V  | 5, 6, 9, 10, 12, 18, 24, 48 V  | 5, 6, 9, 10, 12, 18, 24, 48 V  |
| 480 V AC   | 400 V AC   | 400 V AC   | 400 V AC   |
| 5 000 V AC ⑤<br>2 000 V AC ⑥   | 5 000 V AC ⑤<br>1 000 V AC ⑥   | 5 000 V AC ⑤<br>1 000 V AC ⑥   | 5 000 V AC ⑤<br>1 000 V AC ⑥   |
| 29 x 12,7 x 15,7   | 29 x 12,7 x 15,7   | 29 x 12,7 x 15,7   | 40,5 x 12,7 x 15,7   |
| <br>version 1 NO  | <br>version 1 NO                                | <br>version 1 NO                                | <br>version 1 NO                             |
| <br>version 1 NO  | <br>version 1 NO                                | <br>version 1 NO                                | <br>version 1 NO                             |
| GZT80, GZM80, GZS80, GZF80, GZP80, PW80, EC 50, GD50   |  |  |  |
| <br>RoHS  | <br>RoHS  | <br>RoHS  | <br>RoHS                                     |



① Relpol S.A. is not responsible for usage relays with AgCdO contact material in categories of EEE where it is prohibited by the directive RoHS2 2011/65/EU. ② Available special versions - relays with the increased dielectric strength of the contact clearance (only with NO contacts and DC coils) ③ ④ RM85 faston: horizontal version (H) - see [www.relpol.com.pl](http://www.relpol.com.pl)

# Relays for electronics

## miniature relays





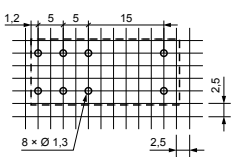
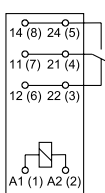
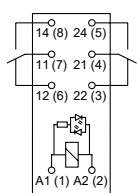
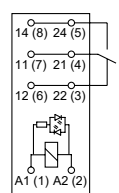
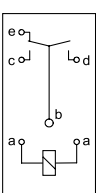



| Type                                     | RM87  | RM87 sensitive  | RM96  | RM699B  |
|--|---|---|---|---|
|  |    |    |   |                    |
| <b>Contact data</b>                      |   | sensitive coil  |   | vertical version (V)  |
| Number and type of contacts              | 1 CO, 1 NO <sup>Ⓜ</sup>   | 1 NO  | 1 CO, 1 NO, 1 NC  | 1 CO, 1 NO  |
| Contact material                         | AgNi, AgNi/Au <sup>Ⓜ</sup> , AgSnO <sub>2</sub>   | AgNi, AgNi/Au <sup>Ⓜ</sup> , AgSnO <sub>2</sub>   | AgSnO <sub>2</sub> , AgSnO <sub>2</sub> /Au <sup>Ⓜ</sup>  | AgSnO <sub>2</sub> , AgSnO <sub>2</sub> /Au <sup>Ⓜ</sup> , AgNi, AgNi/Au <sup>Ⓜ</sup>                 |
| Rated / max. AC switching voltage        | 250 V / 400 V   | 250 V / 400 V   | 250 V / 400 V   | 250 V / 400 V <sup>Ⓜ</sup>  |
| Rated load (capacity)                    | AC1 12 A / 250 V AC<br>AC15 3 A / 120 V (B300)<br>AC15 1,5 A / 240 V (B300)<br>DC1 12 A / 24 V DC <sup>Ⓜ</sup><br>DC13 0,22 A / 120 V (R300)<br>DC13 0,1 A / 250 V (R300) | 10 A / 250 V AC<br>3 A / 120 V (B300)<br>1,5 A / 240 V (B300)<br>10 A / 24 V DC <sup>Ⓜ</sup><br>0,22 A / 120 V (R300)<br>0,1 A / 250 V (R300) | 8 A / 250 V AC<br>3 A / 120 V (B300)<br>1,5 A / 240 V (B300)<br>8 A / 24 V DC <sup>Ⓜ</sup><br>0,22 A / 120 V (R300)<br>0,1 A / 250 V (R300) | 6 A / 250 V AC <sup>Ⓜ</sup><br><br><br>6 A / 30 V DC <sup>Ⓜ</sup>                                     |
| Motor load                               | 0,5 kW <sup>Ⓜ</sup>   | 0,5 kW <sup>Ⓜ</sup>   | 0,37 kW <sup>Ⓜ</sup>  | 1 NO: 0,186 kW <sup>Ⓜ</sup> <sup>Ⓜ</sup>  |
| <b>Coil data</b>                         |   |   |   |   |
| Rated voltage AC                         | 12, <b>24</b> , 48, 60, 110, 115, 120, 220, <b>230</b> , 240 V  |   |   |   |
| Rated voltage DC                         | 3, 5, 6, 9, <b>12</b> , 18, <b>24</b> , 36, 48, 60, 110 V   | 5, 6, 9, 10, 12, 18, 24, 48 V   | 5, 6, 9, <b>12</b> , 18, <b>24</b> , 48 V   | 5, 6, 9, 12, 24, 48, 60 V   |
| <b>Insulation</b>                        |   |   |   |   |
| Insulation rated voltage                 | 400 V AC  | 400 V AC  | 400 V AC  | 250 V AC  |
| Dielectric strength                      |   |   |   |   |
| • coil - contacts                        | 5 000 V AC <sup>Ⓜ</sup>   | 5 000 V AC <sup>Ⓜ</sup>   | 4 000 V AC <sup>Ⓜ</sup>   | 4 000 V AC <sup>Ⓜ</sup>   |
| • contact clearance                      | 1 000 <sup>Ⓜ</sup> , 2 000 <sup>Ⓜ</sup> V AC  | 1 000 V AC <sup>Ⓜ</sup>   | 1 000 V AC <sup>Ⓜ</sup>   | 1 000 V AC <sup>Ⓜ</sup>   |
| <b>General data</b>                      |   |   |   |   |
| Dimensions mm                            | 29 x 12,7 x 15,7  | 29 x 12,7 x 15,7  | 1 CO: 30 x 10 x 16,2  | 28 x 5 x 15   |
| Pinout (solder side view)                | <br>version 1 CO (RM87L)   | <br>version 1 NO (RM87P)                                   | <br>version 1 CO  | <br>version 1 CO |
| Connection diagrams (pin side view)      | <br>version 1 CO (RM87L)   | <br>version 1 NO (RM87P)                                   | <br>version 1 CO                                       | <br>version 1 CO |
| Plug-in sockets for relays               | <sup>Ⓜ</sup> GZT92, GZM92, GZS92, EC 35, GD35<br><sup>Ⓜ</sup> GZT80, GZM80, GZS80, GZF80, GZP80, PW80, EC 50, GD50  |   | ES 32   | PI6W, PI6WB, 6W, 6WB, GD699   |
| Recognitions, certifications, directives | <br>RoHS   | <br>RoHS   | <br>RoHS  | <br>RoHS         |

<sup>Ⓜ</sup> Hard gold plating    <sup>Ⓜ</sup> Type of insulation: reinforced    <sup>Ⓜ</sup> Type of clearance: micro-disconnection  
<sup>Ⓜ</sup> AC3 according to IEC 60947-4-1, 1-phase motor    <sup>Ⓜ</sup> Diagram: www.repol.com.pl



# Relays for electronics

## miniature relays













































| RM83   | RMP84   | RMP85   | RA2   |
|--|---|---|---|
|   |                    |                    | automotive relays<br>          |
| 1 CO, 1 NO, 1 NC   | 2 CO  | 1 CO  | 1 CO, 1 NO, 2 NO  |
| AgSnO <sub>2</sub>   | AgNi  | AgNi  | AgSnO <sub>2</sub>  |
| 250 V / 400 V  | 250 V / 440 V   | 250 V / 440 V   | DC: 50 V / 50 V   |
| 16 A / 250 V AC<br>6 A / 120 V (B300)<br>3 A / 240 V (B300)<br>16 A / 24 V DC Ⓢ<br>0,22 A / 120 V (R300)<br>0,1 A / 250 V (R300) | 8 A / 250 V AC  | 16 A / 250 V AC   | 1 CO: 20 A / 12 A (NO/NC)   |
| 0,65 kW Ⓢ  |   |   |   |
|  | <b>24, 115, 230 V</b>   | <b>24, 115, 230 V</b>   |   |
| 5, 6, 9, 12, 18, 24, 36, 48, 60, 110 V   | <b>12, 24, 48, 110 V</b>  | <b>12, 24, 48, 110 V</b>  | 5, 6, 9, 12, 15, 18, 24, 48 V   |
| 400 V AC   | 440 V AC  | 440 V AC  | 50 V AC   |
| 4 000 V AC Ⓢ<br>1 000 V AC Ⓢ   | 5 000 V AC Ⓢ<br>1 000 V AC Ⓢ  | 5 000 V AC Ⓢ<br>1 000 V AC Ⓢ  | 500 V AC<br>500 V AC  |
| IP 40: 29,2 x 13,1 x 25,1  | 29 x 13 x 25,5  | 29 x 13 x 25,5  | IP 00: 18,6 x 13 x 18,5   |
| <br>version 1 CO                              |   |   |   |
| <br>version 1 CO                              | <br>version 2 CO | <br>version 1 CO | <br>version 1 CO left + 1 NO |
| PW80, EC 50, GD50  | GZF80, GZP80,<br>EC 50, GD50  | GZF80, GZP80,<br>EC 50, GD50  |   |
| <br>RoHS                                      | <br>RoHS         | <br>RoHS         | RoHS  |



- Ⓢ Available special versions - relays with the increased dielectric strength of the contact clearance (only with NO contacts and DC coils) Ⓢ Ⓢ Available in version: RM87N (3,5 mm pinout) Ⓢ Available in versions: RM87L, RM87P (5 mm pinout)  
Ⓢ RM699B: horizontal version (H) - see [www.repol.com.pl](http://www.repol.com.pl) Ⓢ Only for contacts AgSnO<sub>2</sub>, AgNi

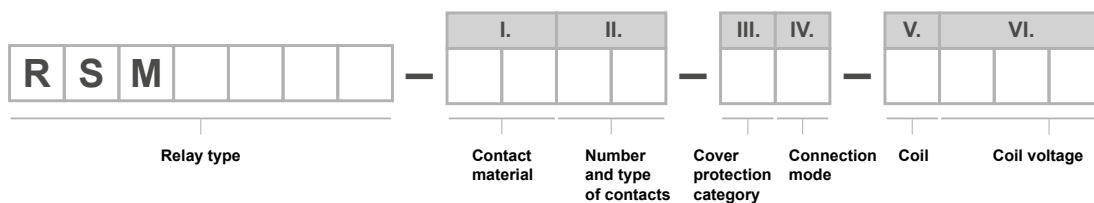


## Plug-in sockets for relays

|  |   |   |   |  |
|--|---|---|---|--|
| <p><b>GZT80 (852612)</b><br/>For RM84, RM85, RM87L/P</p>    | <p><b>GZT92 (852580)</b><br/>For RM87N</p>   | <p><b>GZM80 (857408)</b><br/>For RM84, RM85, RM87L/P</p>    | <p><b>GZM92 (857410)</b><br/>For RM87N</p>   |  |
| <p><b>GZP80 (864325)</b><br/>For RM84, RM85, RM87L/P, RMP84, RMP85</p>   |   |   |   |  |
|  <p>GZP80-040</p>   |  <p>GZT80-0040</p>   |  <p>GZM80-0041</p>   |  <p>GZ80-1001</p>  |  |
| <p><b>GZF80 (2615352)</b><br/>For RM84, RM85, RM87L/P, RMP84, RMP85</p>   | <p><b>GZS80 (2613503)</b><br/>For RM84, RM85, RM87L/P</p>    | <p><b>GZS92 (2613502)</b><br/>For RM87N</p>   | <p><b>ES 32</b><br/>For RM96 1 CO</p>    |  |
|  <p>GZM80-0041</p>  <p>GZ80-1001</p> |  <p>GZS-0040</p>  <p>GZM80-0041</p> |  <p>TR</p>  <p>M...</p>  <p>ZGGZ80</p> |   |  |
| <p><b>PW80 (592066)</b><br/>For RM84, RM85, RM87L/P, RM83</p>   | <p><b>EC 50 (2000532)</b><br/>For RM84, RM85, RM87L/P, RM83, RMP84, RMP85</p>    | <p><b>EC 35 (2000531)</b><br/>For RM87N</p>    | <p><b>GD50 (2613510)</b><br/>For RM84, RM85, RM87L/P, RM83, RMP84, RMP85</p>    |  |
|  <p>MH16-2</p>  <p>MH25-2</p>        |  <p>MH16-2</p>  <p>MH25-2</p>       |  <p>MP16-2</p>  <p>MP25-2</p>   |  <p>GD-0016</p>  <p>MH16-2</p>  <p>MH25-2</p>  <p>MP16-2</p>  <p>MP25-2</p> |  |
| <p><b>PI6W</b><br/>For RM699BV, RSR30</p>   | <p><b>PI6WB</b><br/>For RM699BV, RSR30</p>   | <p><b>6W</b><br/>For RM699BV, RSR30</p>    | <p><b>6WB</b><br/>For RM699BV, RSR30</p>    |  |
|  <p>ZG20</p>  <p>PI6W-1246</p>       |  <p>6W-SEP</p>  <p>JB20</p>        |  <p>MP6-C</p>  |  <p>MP6-C</p>  |  |



# Relays for electronics



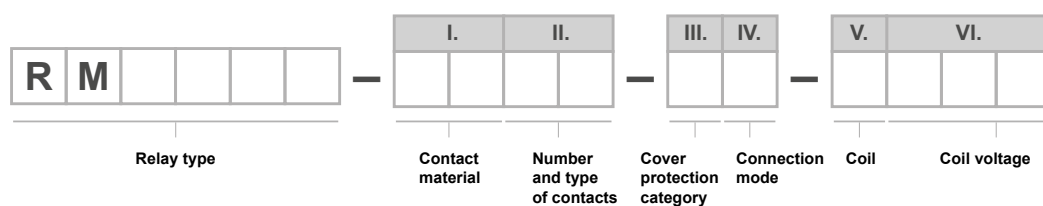
|  | Relay type                     |                     |         |              |              |
|--|--------------------------------|---------------------|---------|--------------|--------------|
|  | RSM850<br>versions<br>THT, SMT | RSM850B<br>bistable | RSM822N | RSM954N      | RSM957N      |
| <b>I. Contact material</b>             |                                |                     |         |              |              |
| 01 - Ag/Au flash gold plating          |                                |                     |         | •            | •            |
| 21 - AgNi/Au flash gold plating        |                                |                     | •       |              |              |
| 61 - AgPd/Au flash gold plating        | •                              | •                   |         |              |              |
| <b>II. Number and type of contacts</b> |                                |                     |         |              |              |
| 11 - 1 CO                              |                                |                     |         | •            | •            |
| 12 - 2 CO                              | •                              | •                   | •       |              |              |
| <b>III. Cover protection category</b>  |                                |                     |         |              |              |
| 8 - IP 67                              | •                              | •                   | •       | •            | •            |
| <b>IV. Connection mode</b>             |                                |                     |         |              |              |
| 5 - for PCB                            | •                              | •                   | •       | •            | •            |
| M - SMT                                | •                              |                     |         |              |              |
| <b>V. Coil</b>                         |                                |                     |         |              |              |
| 1 - DC                                 | •                              | •                   | •       | •            |              |
| S - DC sensitive (low power)           |                                |                     |         | •            | •            |
| <b>VI. Coil voltage</b>                |                                |                     |         |              |              |
|  | DC                             | DC                  | DC      | DC sensitive | DC sensitive |
| 005 - 5 V                              | •                              | •                   |         | •            | •            |
| 012 - 12 V                             | •                              | •                   |         | •            | •            |
| 024 - 24 V                             | •                              | •                   |         | •            | •            |
| 048 - 48 V                             |                                |                     | •       |              |              |

... - other voltages: see data tables (pages 15, 16) or product catalog (full edition) [www.repol.pl/en/Download/Product-Catalogs](http://www.repol.pl/en/Download/Product-Catalogs)

## EXAMPLE ORDERING CODES

| Index   | Code                 | Description   |
|---------|----------------------|---|
| 2611705 | RSM850-6112-85-1005  | two changeover contacts 2 A (AgPd/Au), coil voltage 5 V DC              |
| 2611708 | RSM850-6112-85-1012  | two changeover contacts 2 A (AgPd/Au), coil voltage 12 V DC             |
| 2611709 | RSM850-6112-85-1024  | two changeover contacts 2 A (AgPd/Au), coil voltage 24 V DC             |
| 2611711 | RSM850B-6112-85-1005 | two changeover contacts 2 A (AgPd/Au), coil voltage 5 V DC              |
| 2611714 | RSM850B-6112-85-1012 | two changeover contacts 2 A (AgPd/Au), coil voltage 12 V DC             |
| 2611715 | RSM850B-6112-85-1024 | two changeover contacts 2 A (AgPd/Au), coil voltage 24 V DC             |
| 2614638 | RSM822N-2112-85-S005 | two changeover contacts 3 A (AgNi/Au), coil voltage 5 V DC (sensitive)  |
| 2614641 | RSM822N-2112-85-S012 | two changeover contacts 3 A (AgNi/Au), coil voltage 12 V DC (sensitive) |
| 2614642 | RSM822N-2112-85-S024 | two changeover contacts 3 A (AgNi/Au), coil voltage 24 V DC (sensitive) |
| 2614624 | RSM954N-0111-85-1005 | one changeover contact 3 A (Ag/Au), coil voltage 5 V DC                 |
| 2614627 | RSM954N-0111-85-1012 | one changeover contact 3 A (Ag/Au), coil voltage 12 V DC                |
| 2614628 | RSM954N-0111-85-1024 | one changeover contact 3 A (Ag/Au), coil voltage 24 V DC                |
| 2614631 | RSM957N-0111-85-S005 | one changeover contact 1 A (Ag/Au), coil voltage 5 V DC (sensitive)     |
| 2614634 | RSM957N-0111-85-S012 | one changeover contact 1 A (Ag/Au), coil voltage 12 V DC (sensitive)    |
| 2614635 | RSM957N-0111-85-S024 | one changeover contact 1 A (Ag/Au), coil voltage 24 V DC (sensitive)    |

# Relays for electronics



|   | Relay type |       |       |      |       |      |       |      |      |               |      |    |              |
|---|------------|-------|-------|------|-------|------|-------|------|------|---------------|------|----|--------------|
|   | RM12       | RM12N | RM32N | RM40 | RM45N | RM50 | RM50N | RM51 | RM96 | RM699B        | RM83 |    |              |
|   |            |       |       |      |       |      |       |      |      | versions V, H |      |    |              |
| <b>I. Contact material</b>                    |            |       |       |      |       |      |       |      |      |               |      |    |              |
| 10 - AgCdO                                    |            |       |       |      |       |      | •     |      |      |               |      |    |              |
| 20 - AgNi                                     | •          | •     |       |      |       |      |       |      |      |               | •    |    |              |
| 22 - AgNi/Au hard gold plating                | •          |       |       |      |       |      |       |      |      |               | •    |    |              |
| 30 - AgSnO <sub>2</sub>                       | •          | •     | •     |      |       | •    | •     | •    | •    | •             | •    | •  |              |
| 32 - AgSnO <sub>2</sub> /Au hard gold plating | •          |       |       |      |       |      |       |      | •    | •             |      |    |              |
| <b>II. Number and type of contacts</b>        |            |       |       |      |       |      |       |      |      |               |      |    |              |
| 11 - 1 CO                                     | •          | •     | •     | •    | •     | •    | •     | •    | •    | •             | •    | •  |              |
| 21 - 1 NO                                     | •          | •     | •     | •    | •     | •    | •     | •    | •    | •             | •    | •  |              |
| 31 - 1 NC                                     |            |       |       |      |       |      |       |      |      | •             |      | •  |              |
| <b>III. Cover protection category</b>         |            |       |       |      |       |      |       |      |      |               |      |    |              |
| 2 - IP 40                                     | •          | •     |       |      |       |      |       |      | •    |               |      | •  |              |
| 3 - IP 67                                     | •          | •     |       |      |       |      |       |      | •    |               |      | •  |              |
| 8 - IP 67                                     |            |       | •     | •    | •     | •    | •     | •    |      | •             |      |    |              |
| <b>IV. Connection mode</b>                    |            |       |       |      |       |      |       |      |      |               |      |    |              |
| 5 - for PCB                                   | •          | •     | •     | •    | •     | •    | •     | •    |      |               |      |    |              |
| 5 - for PCB and sockets                       |            |       |       |      |       |      |       |      | •    | •             |      | •  |              |
| <b>V. Coil</b>                                |            |       |       |      |       |      |       |      |      |               |      |    |              |
| 1 - DC  | •          | •     | •     | •    | •     | •    | •     | •    | •    | •             | •    | •  |              |
| S - DC sensitive                              |            |       |       |      |       |      |       |      |      |               |      | •  |              |
| <b>VI. Coil voltage</b>                       | DC         | DC    | DC    | DC   | DC    | DC   | DC    | DC   | DC   | DC            | DC   | DC | DC sensitive |
| 005 - 5 V                                     | •          | •     | •     | •    | •     | •    | •     | •    | •    | •             | •    | •  |              |
| 012 - 12 V                                    | •          | •     | •     | •    | •     | •    | •     | •    | •    | •             | •    | •  |              |
| 024 - 24 V                                    | •          | •     | •     | •    | •     | •    | •     | •    | •    | •             | •    | •  |              |
| 110 - 110 V                                   |            |       |       |      |       |      |       |      |      |               |      | •  | •            |

... - other voltages: see data tables (pages 17, 18, 20, 21) or product catalog (full edition) [www.relpol.pl/en/Download/Product-Catalogs](http://www.relpol.pl/en/Download/Product-Catalogs)

## EXAMPLE ORDERING CODES

| Index   | Code                 | Description  |
|---------|----------------------|--|
| 861980  | RM12-2011-35-1012    | one changeover contact 8 A (AgNi), coil voltage 12 V DC                                    |
| 862000  | RM12-2021-35-1024    | one normally open contact 8 A (AgNi), coil voltage 24 V DC                                 |
| 2614997 | RM12N-2011-25-1012   | one changeover contact 8 A (AgNi), coil voltage 12 V DC                                    |
| 2614939 | RM12N-3021-35-1024   | one normally open contact 10 A (AgSnO <sub>2</sub> ), coil voltage 24 V DC                 |
| 2615029 | RM32N-3011-85-1012   | one changeover contact 5 A (AgSnO <sub>2</sub> ), coil voltage 12 V DC                     |
| 2615024 | RM32N-3021-85-1024   | one normally open contact 5 A (AgSnO <sub>2</sub> ), coil voltage 24 V DC                  |
| 2611695 | RM40-2011-85-1024    | one changeover contact 5 A (AgNi), coil voltage 24 V DC                                    |
| 2614936 | RM45N-3011-85-1012   | one changeover contact 5 A (AgSnO <sub>2</sub> ), coil voltage 12 V DC                     |
| 2614955 | RM45N-3021-85-1024   | one normally open contact 5 A (AgSnO <sub>2</sub> ), coil voltage 24 V DC                  |
| 2611657 | RM50-3011-85-1024    | one changeover contact 12 A (AgSnO <sub>2</sub> ), coil voltage 24 V DC                    |
| 2614648 | RM50N-3011-85-1012   | one changeover contact 12 A (AgSnO <sub>2</sub> ), coil voltage 12 V DC                    |
| 2614660 | RM50N-3021-85-1024   | one normally open contact 12 A (AgSnO <sub>2</sub> ), coil voltage 24 V DC                 |
| 2614699 | RM51-3011-85-1012    | one changeover contact 10 A (AgSnO <sub>2</sub> ), coil voltage 12 V DC                    |
| 2614710 | RM51-3021-85-1024    | one normally open contact 10 A (AgSnO <sub>2</sub> ), coil voltage 24 V DC                 |
| 852845  | RM96-3011-35-1024    | one changeover contact 8 A (AgSnO <sub>2</sub> ), coil voltage 24 V DC                     |
| 852859  | RM96-3021-35-1024    | one normally open contact 8 A (AgSnO <sub>2</sub> ), coil voltage 24 V DC                  |
| 2613696 | RM699BV-3011-85-1012 | one changeover contact 6 A (AgSnO <sub>2</sub> ), coil voltage 12 V DC, vertical version   |
| 2613700 | RM699BH-3011-85-1024 | one changeover contact 6 A (AgSnO <sub>2</sub> ), coil voltage 24 V DC, horizontal version |
| 855151  | RM83-3011-25-1024    | one changeover contact 16 A (AgSnO <sub>2</sub> ), coil voltage 24 V DC                    |
| 440665  | RM83-3021-25-S110    | one normally open contact 16 A (AgSnO <sub>2</sub> ), coil voltage 110 V DC (sensitive)    |






































# Signalling / protecting module

## ORDERING CODES

| Index   | Code      | Description  |
|---------|-----------|--|
| 854834  | M21P      | module D (diode D) - surge suppression, grey colour, operating voltage 6...230 V DC, polarization P: -A1 / +A2   |
| 854776  | M21P      | module D (diode D) - surge suppression, black colour, operating voltage 6...230 V DC, polarization P: -A1 / +A2  |
| 854833  | M21N      | module D (diode D) - surge suppression, grey colour, operating voltage 6...230 V DC, polarization N: +A1 / -A2   |
| 854777  | M21N      | module D (diode D) - surge suppression, black colour, operating voltage 6...230 V DC, polarization N: +A1 / -A2  |
| 854836  | M31R      | module LD (diode LED red + diode D) - signalling and surge suppression, grey colour, operating voltage 6...24 V DC, polarization P: -A1 / +A2              |
| 854835  | M31G      | module LD (diode LED green + diode D) - signalling and surge suppression, grey colour, operating voltage 6...24 V DC, polarization P: -A1 / +A2            |
| 854838  | M32R      | module LD (diode LED red + diode D) - signalling and surge suppression, grey colour, operating voltage 24...60 V DC, polarization P: -A1 / +A2             |
| 854837  | M32G      | module LD (diode LED green + diode D) - signalling and surge suppression, grey colour, operating voltage 24...60 V DC, polarization P: -A1 / +A2           |
| 854842  | M41R      | module LD (diode LED red + diode D) - signalling and surge suppression, grey colour, operating voltage 6...24 V DC, polarization N: +A1 / -A2              |
| 854841  | M41G      | module LD (diode LED green + diode D) - signalling and surge suppression, grey colour, operating voltage 6...24 V DC, polarization N: +A1 / -A2            |
| 854844  | M42R      | module LD (diode LED red + diode D) - signalling and surge suppression, grey colour, operating voltage 24...60 V DC, polarization N: +A1 / -A2             |
| 854843  | M42G      | module LD (diode LED green + diode D) - signalling and surge suppression, grey colour, operating voltage 24...60 V DC, polarization N: +A1 / -A2           |
| 854846  | M43R      | module LD (diode LED red + diode D) - signalling and surge suppression, grey colour, operating voltage 110...230 V DC, polarization N: +A1 / -A2           |
| 854845  | M43G      | module LD (diode LED green + diode D) - signalling and surge suppression, grey colour, operating voltage 110...230 V DC, polarization N: +A1 / -A2         |
| 854847  | M51       | module RC (resistor R + capacitor C) - limits inductive disturbance, grey colour, operating voltage 6...24 V AC, connection: A1 / A2                       |
| 854848  | M52       | module RC (resistor R + capacitor C) - limits inductive disturbance, grey colour, operating voltage 24...60 V AC, connection: A1 / A2                      |
| 854849  | M53       | module RC (resistor R + capacitor C) - limits inductive disturbance, grey colour, operating voltage 110...240 V AC, connection: A1 / A2                    |
| 854851  | M61R      | module L (diode LED red) - signalling, grey colour, operating voltage 6...24 V AC/DC, polarization: (+)A1 / (-)A2  |
| 854850  | M61G      | module L (diode LED green) - signalling, grey colour, operating voltage 6...24 V AC/DC, polarization: (+)A1 / (-)A2  |
| 854853  | M62R      | module L (diode LED red) - signalling, grey colour, operating voltage 24...60 V AC/DC, polarization: (+)A1 / (-)A2   |
| 854852  | M62G      | module L (diode LED green) - signalling, grey colour, operating voltage 24...60 V AC/DC, polarization: (+)A1 / (-)A2                                       |
| 854855  | M63R      | module L (diode LED red) - signalling, grey colour, operating voltage 110...230 V AC/DC, polarization: (+)A1 / (-)A2                                       |
| 854854  | M63G      | module L (diode LED green) - signalling, grey colour, operating voltage 110...230 V AC/DC, polarization: (+)A1 / (-)A2                                     |
| 854857  | M91R      | module LV (diode LED red + varistor V) - signalling and surge suppression, grey colour, operating voltage 6...24 V AC/DC, polarization: (+)A1 / (-)A2      |
| 854856  | M91G      | module LV (diode LED green + varistor V) - signalling and surge suppression, grey colour, operating voltage 6...24 V AC/DC, polarization: (+)A1 / (-)A2    |
| 854859  | M92R      | module LV (diode LED red + varistor V) - signalling and surge suppression, grey colour, operating voltage 24...60 V AC/DC, polarization: (+)A1 / (-)A2     |
| 854858  | M92G      | module LV (diode LED green + varistor V) - signalling and surge suppression, grey colour, operating voltage 24...60 V AC/DC, polarization: (+)A1 / (-)A2   |
| 854861  | M93R      | module LV (diode LED red + varistor V) - signalling and surge suppression, grey colour, operating voltage 110...230 V AC/DC, polarization: (+)A1 / (-)A2   |
| 854860  | M93G      | module LV (diode LED green + varistor V) - signalling and surge suppression, grey colour, operating voltage 110...230 V AC/DC, polarization: (+)A1 / (-)A2 |
| 854862  | M71       | module V (varistor V) - surge suppression, grey colour, operating voltage 24 V AC, connection: A1 / A2   |
| 854863  | M72       | module V (varistor V) - surge suppression, grey colour, operating voltage 130 V AC, connection: A1 / A2  |
| 854864  | M73       | module V (varistor V) - surge suppression, grey colour, operating voltage 230 V AC, connection: A1 / A2  |
| 2002616 | Module 21 | module D (diode D) - surge suppression, black colour, operating voltage 6...230 V DC, polarization N: +A1 / -A2  |
| 2611805 | Module 41 | module LD (diode LED red + diode D) - signalling and surge suppression, black colour, operating voltage 6...24 V DC, polarization N: +A1 / -A2             |

# Interconnection strips

## ORDERING CODES

| Index   | Code        | Description   |
|---------|-------------|---|
| 858826  | ZGGZ80-1    |  strip 8-poles, bridges common input or output signals, for GZT80, GZM80, GZS80, GZT92, GZM92, GZS92, ES 32, PI84, PI85            |
| 858827  | ZGGZ80-2    |    |
| 858829  | ZGGZ4-1     |  strip 6-poles, bridges common input or output signals, for GZT2, GZM2, GZT3, GZM3, GZT4, GZM4, PIR2, PIR3, PIR4                   |
| 858830  | ZGGZ4-2     |    |
| 2616314 | ZGZP-2 GY   |  jumper 2-poles, bridges the neighboring poles of single socket, for GZP80, GZP4, PI84, PI85, PI84P, PI85P, PIR2, PIR4             |
| 2616315 | ZGZP-2 BK   |    |
| 2616316 | ZGZP-2 RD   |    |
| 2616317 | ZGZP-2 BE   | <br>  |
| 2616318 | ZGZP80-8 GY |  strip 8-poles, bridges common input signals (A1, A2 or A1 and A2 together), for GZP80, PI84, PI85, PI84P, PI85P                   |
| 2616319 | ZGZP80-8 BK |    |
| 2616320 | ZGZP80-8 RD |    |
| 2616321 | ZGZP80-8 BE | <br>   |
| 2616326 | ZGZP80-2 GY |  strip 2-poles, bridges common input signals (A1, A2 or A1 and A2 together) or output signals, for GZP80, PI84, PI85, PI84P, PI85P |
| 2616327 | ZGZP80-2 BK |    |
| 2616328 | ZGZP80-2 RD |    |
| 2616329 | ZGZP80-2 BE | <br>  |
| 2616322 | ZGZP4-8 GY  |  strip 8-poles, bridges common input signals (A1, A2 or A1 and A2 together), for GZP4, PIR2, PIR4                                  |
| 2616323 | ZGZP4-8 BK  |   |
| 2616324 | ZGZP4-8 RD  |    |
| 2616325 | ZGZP4-8 BE  | <br>   |
| 2616330 | ZGZP4-2 GY  |  strip 2-poles, bridges common input signals (A1, A2 or A1 and A2 together) or output signals for GZP4, PIR2, PIR4               |
| 2616331 | ZGZP4-2 BK  |    |
| 2616332 | ZGZP4-2 RD  |    |
| 2616333 | ZGZP4-2 BE  | <br>  |
| 2608954 | ZG20-1      |    |
| 2608955 | ZG20-2      |    |
| 2608956 | ZG20-3      |    |
| 2615831 | JB20-1      |    |
| 2615830 | JB20-2      |    |
| 2615829 | JB20-3      | <br>strip 20-poles, bridges common input or output signals, for 6W, 6WB, SIR6W, SIR6WB   |



# Relays for industry

## Miniature industrial relays

- $I_n$  currents of contacts: 5 ... 12 A.
- Methods of mounting:  
in plug-in sockets,  
direct on panel mounting, THT  
- depending on the type of relay.



|           |    |
|-----------|----|
| R2N ..... | 30 |
| R3N ..... | 30 |
| R4N ..... | 30 |
| R2M ..... | 30 |

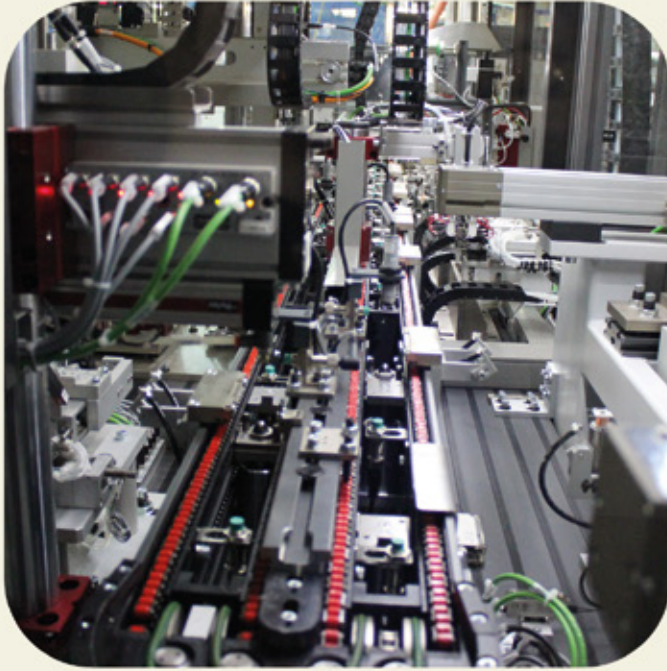
## Industrial relays of small dimensions

- $I_n$  currents of contacts: 10 ... 40 A.
- Methods of mounting:  
in plug-in sockets,  
direct on 35 mm rail mount,  
direct on panel mounting, THT  
- depending on the type of relay.

## Applications:

- general control of electrical equipment,
- industrial control systems,
- equipment for air-conditioning, refrigeration products, heating, ventilation, lighting,
- protection, monitoring and alarm equipment,
- control systems and devices for household equipment,
- electrical automation systems - industrial and power-engineering automation,
- building automation equipment (BMS),
- other.

|                  |    |
|------------------|----|
| R15 - 2 CO ..... | 31 |
| R15 - 3 CO ..... | 31 |
| R15 - 4 CO ..... | 31 |
| RUC .....        | 32 |
| RUC-M .....      | 32 |
| RG25 .....       | 32 |
| R20 .....        | 33 |
| R30N .....       | 33 |
| R40N .....       | 33 |



### Interface relays (relay coupling modules)

- $I_n$  currents of contacts: 1 ... 16 A.
- Connections of wiring: screw terminals, spring terminals - depending on the type of relay.
- Methods of mounting:
  - PI84, PI85, PIR2, PIR3, PIR4: on 35 mm rail mount or on panel mounting,
  - PI84P, PI85P, PI6, PIR6W, PIR6WB, SIR6W, SIR6WB: on 35 mm rail mount.





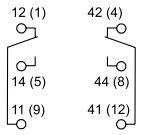
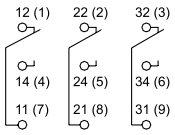
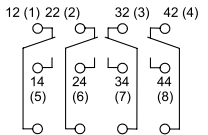
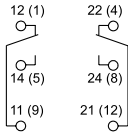
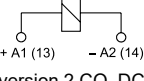
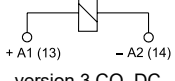
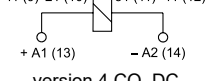





### Applications:

- in applications with PLCs as input / output [I/O] separators,
- in industrial automation applications for isolation of input signals from output circuits,
- in electrical applications as universal interfaces between control and load, for medium load switching,
- applications specified in descriptions of relays - miniature industrial and industrial of small dimensions.

|                           |    |
|---------------------------|----|
| PI84 - GZT80 .....        | 38 |
| PI84 - GZM80 .....        | 38 |
| PI84 - GZP80 .....        | 38 |
| PI85 - GZT80 .....        | 38 |
| PI85 - GZM80 .....        | 39 |
| PI85 - GZP80 .....        | 39 |
| PI85 inrush - GZT80 ..... | 39 |
| PI84P - GZP80 .....       | 39 |
| PI85P - GZP80 .....       | 39 |
| PIR2 - GZM2 .....         | 40 |
| PIR2 - GZP4 .....         | 40 |
| PIR3 - GZM3 .....         | 40 |
| PIR4 - GZM4 .....         | 40 |
| PIR4 - GZP4 .....         | 41 |
| PI6-1P .....              | 41 |
| PI6-1T .....              | 41 |
| PIR6W-1P-... .....        | 41 |
| PIR6W-1PS-... .....       | 42 |
| PIR6WB-1PS-... .....      | 42 |
| SIR6W-... .....           | 43 |
| SIR6WB-... .....          | 43 |

# Relays for industry

## miniature industrial relays




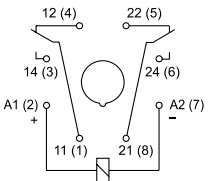
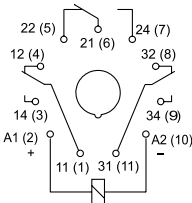
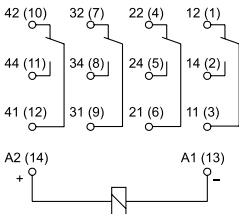



| Type  |                       | R2N  | R3N  | R4N   | R2M  |
|---|-----------------------|--|--|---|--|
|   |                       |   |   |   |                                       |
| <b>Contact data</b>   |                       |  |  |   |  |
| Number and type of contacts   |                       | 2 CO   | 3 CO   | 4 CO  | 2 CO   |
| Contact material  |                       | AgNi, AgNi/Au ❶  | AgNi, AgNi/Au ❶  | AgNi, AgNi/Au ❶, AgNi/Au ❷  | AgNi, AgNi/Au ❶, AgSnO <sub>2</sub>  |
| Rated / max. AC switching voltage   | AC                    | 250 V / 440 V  | 250 V / 440 V  | 250 V / 250 V   | 250 V / 250 V  |
| Rated load (capacity)   | AC1                   | 12 A / 250 V AC  | 10 A / 250 V AC  | 7 A / 230 V AC (VDE)  | 5 A / 250 V AC   |
|   | AC1                   |  |  | 6 A / 250 V AC  |  |
|   | AC15                  | 3 A / 120 V (B300)   | 3 A / 120 V (B300)   | 1,5 A / 120 V (C300)  |  |
|   | AC15                  | 1,5 A / 240 V (B300)   | 1,5 A / 240 V (B300)   | 0,75 A / 240 V (C300)   | 5 A / 24 V DC  |
|   | DC1                   | 12 A / 24 V DC ❸   | 10 A / 24 V DC ❸   | 6 A / 24 V DC ❸   |  |
| DC13  | 0,22 A / 120 V (R300) | 0,22 A / 120 V (R300)  | 0,22 A / 120 V (R300)  |   |  |
| DC13  | 0,1 A / 250 V (R300)  | 0,1 A / 250 V (R300)   | 0,1 A / 250 V (R300)   |   |  |
| Motor load  |                       | 0,37 kW ❹  | 0,37 kW ❹  | 0,125 kW ❹  |  |
| <b>Coil data</b>  |                       |  |  |   |  |
| Rated voltage   | AC                    | 6, 12, <b>24</b> , 42, 48, 60, 80, 110, 115, 120, 127, 220, <b>230</b> , 240 V   | 6, 12, <b>24</b> , 42, 48, 60, 80, 110, 115, 120, 127, 220, <b>230</b> , 240 V   | 6, 12, <b>24</b> , 42, 48, 60, 80, 110, 115, 120, 127, 220, <b>230</b> , 240 V  | 6, 12, <b>24</b> , 50, 100, 110, 115, 120, 220, <b>230</b> , 240 V   |
|   | DC                    | 5, 6, <b>12</b> , <b>24</b> , 48, 60, 80, 110, 125, <b>220</b> V   | 5, 6, <b>12</b> , <b>24</b> , 48, 60, 80, 110, 125, <b>220</b> V   | 5, 6, <b>12</b> , <b>24</b> , 48, 60, 80, 110, 125, <b>220</b> V  | 6, <b>12</b> , <b>24</b> , 48, 60, 80, 110 V   |
| <b>Insulation</b>   |                       |  |  |   |  |
| Insulation rated voltage  |                       | 250 V AC   | 250 V AC   | 250 V AC  | 250 V AC   |
| Dielectric strength   | • coil - contacts     | 2 500 V AC ❺   | 2 500 V AC ❺   | 2 500 V AC ❺  | 2 000 V AC ❺   |
|   | • contact clearance   | 1 500 V AC ❻   | 1 500 V AC ❻   | 1 500 V AC ❻  | 1 000 V AC ❻   |
| <b>General data</b>   |                       |  |  |   |  |
| Dimensions  | mm                    | 27,4 x 21 x 35,5   | 27,4 x 21 x 35,5   | 27,4 x 21 x 35,5  | 27,5 x 14 x 32,9   |
| <b>Connection diagrams (pin side view)</b>                                      |                       |  |  |   |  |
| Note: polarity of the supply of the relays with DC coils - see www.repol.com.pl |                       |   |   |   |                                     |
|   |                       | <br>+ A1 (13) - A2 (14)<br>version 2 CO, DC | <br>+ A1 (13) - A2 (14)<br>version 3 CO, DC | <br>+ A1 (13) - A2 (14)<br>version 4 CO, DC | <br>A1 (13) A2 (14)<br>version 2 CO |
| Plug-in sockets for relays  |                       | GZT2, GZM2, GZP4, SU4/2D, SU4/2L, G4/2   | GZT3, GZM3   | GZT4, GZM4, GZ4, GS4, GZP4, SU4D, SU4L, G4  | GZ2, S2M, G2M  |
| Recognitions, certifications, directives  |                       | <br>RoHS UKCA                               | <br>RoHS UKCA                               | <br>RoHS UKCA                               | <br>RoHS                            |

- ❶ Flash gold plating
- ❷ Hard gold plating
- ❸ AC3 according to IEC 60947-4-1, 1-phase motor
- ❹ Type of insulation: basic
- ❺ Type of clearance: micro-disconnection
- ❻ Diagram: www.repol.com.pl



# Relays for industry



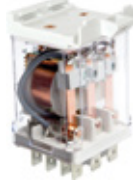

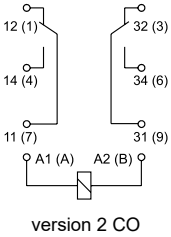
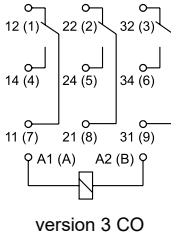
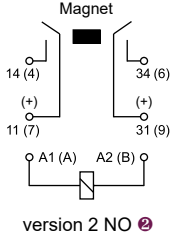
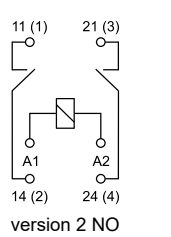




## industrial relays of small dimensions

| R15 - 2 CO  | R15 - 3 CO  | R15 - 4 CO  |
|---|---|---|
|    |    |    |
| 2 CO  | 3 CO  | 4 CO  |
| AgNi, AgNi/Au ①,<br>AgNi/Au ②   | AgNi, AgNi/Au ①,<br>AgNi/Au ②   | AgSnO <sub>2</sub> , AgNi,<br>AgNi/Au ①, AgNi/Au ②                                  |
| 250 V / 440 V   | 250 V / 440 V   | 250 V / 440 V   |
| 10 A / 250 V AC<br>3 A / 120 V (B300)<br>1,5 A / 240 V (B300)<br>10 A / 24 V DC ③   | 10 A / 250 V AC<br>3 A / 120 V (B300)<br>1,5 A / 240 V (B300)<br>10 A / 24 V DC ③   | 10 A / 250 V AC<br>3 A / 120 V (B300)<br>1,5 A / 240 V (B300)<br>10 A / 24 V DC ③   |
| 0,22 A / 120 V (R300)<br>0,1 A / 250 V (R300)                                       | 0,22 A / 120 V (R300)<br>0,1 A / 250 V (R300)                                       | 0,22 A / 120 V (R300)<br>0,1 A / 250 V (R300)                                       |
| 0,37 kW ④   | 0,37 kW ④   | 0,37 kW ④   |
| 6, 12, 24, 48, 60,<br>115, 120,<br>220, 230, 240 V                                  | 6, 12, 24, 48, 60,<br>115, 120,<br>220, 230, 240 V                                  | 6, 12, 24, 48, 60,<br>110, 115, 120,<br>220, 230, 240, 400 V                        |
| 6, 12, 24, 40, 48, 60,<br>110, 120, 220 V   | 6, 12, 24, 40, 48, 60,<br>110, 120, 220 V   | 6, 12, 24, 48, 60,<br>110, 120, 220 V   |
| 250 V AC  | 250 V AC  | 250 V AC  |
| 2 500 V AC ⑤<br>1 500 V AC ⑥  | 2 500 V AC ⑤<br>1 500 V AC ⑥  | 2 500 V AC ⑤<br>1 500 V AC ⑥  |
| 35 x 35 x 54,4  | 35 x 35 x 54,4  | 35 x 42,5 x 54,5  |
|  |  |  |
| version 2 CO, DC  | version 3 CO, DC  | version 4 CO, DC  |
| PZ8, GZU8, GZ8,<br>GZP8, GOP8   | PZ11, GZU11, GZ11,<br>GZP11, GOP11  | GZ14U, GZ14, GZ14Z,<br>GZ14P, GOP14   |
|  |  |  |



# Relays for industry

## industrial relays of small dimensions

| Type   |                     | RUC   | RUC   | RUC-M  | RG25  |
|--|---------------------|---|---|--|---|
|  |                     | faston 4,8 x 0,5  | faston 6,3 x 0,8  | for DC loads   |    |
|  |                     |    |    |    |   |
| Contact data   |                     |   |   |  |   |
| Number and type of contacts  |                     | 2 CO, 3 CO,<br>2 NO, 3 NO   | 2 CO, 3 CO,<br>2 NO, 3 NO   | 1 NO, 2 NO   | 2 NO  |
| Contact material   |                     | AgNi, AgSnO <sub>2</sub>  | AgNi, AgSnO <sub>2</sub>  | AgNi, AgSnO <sub>2</sub>   | AgSnO <sub>2</sub>  |
| Rated / max. AC switching voltage  | AC                  | 250 V / 440 V   | 250 V / 440 V   | 250 V / 440 V  | 400 V / 440 V   |
| Rated load (capacity)  | AC1                 | 16 A / 250 V AC   | 16 A / 250 V AC   | 16 A / 250 V AC  | 25 A / 400 V AC   |
|  | AC1                 |   |   |  |   |
|  | DC1                 | 16 A / 24 V DC ⑤  | 16 A / 24 V DC ⑤  | 1 NO: 12 A / 220 V DC ⑤<br>2 NO: 4,5 A / 220 V DC ④                                  | 25 A / 24 V DC ⑤  |
|  | DC13                |   |   |  | 0,3 A / 120 V (R300)<br>0,15 A / 250 V (R300)   |
| DC13   |                     |   |   |  |   |
| Coil data  |                     |   |   |  |   |
| Rated voltage  | AC                  | 6, 12, 24, 115, 120,<br>220, 230, 240, 400 V  | 6, 12, 24, 115, 120,<br>220, 230, 240, 400 V  | 12, 24, 48, 115, 120,<br>230, 240 V  | 12, 24, 110, 230, 400 V   |
|  | DC                  | 6, 12, 24, 42, 48, 60,<br>110, 120, 220 V   | 6, 12, 24, 42, 48, 60,<br>110, 120, 220 V   | 12, 24, 48,<br>110, 220 V  | 12, 24, 48, 110, 220 V  |
|  |                     | 12, 24, 48, 110, 220 V<br>(reinforced)  | 12, 24, 48, 110, 220 V<br>(reinforced)  | 12, 24, 48, 110, 220 V<br>(reinforced)   |   |
| Insulation   |                     |   |   |  |   |
| Insulation rated voltage   |                     | 400 V AC  | 400 V AC  | 400 V AC   | 400 V AC  |
| Dielectric strength  | • coil - contacts   | 2 500 V AC ⑥  | 2 500 V AC ⑥  | 2 500 V AC ⑥   | 5 000 V AC ④  |
|  | • contact clearance | 1 500 ⑥, 2 500 ⑥ V AC   | 1 500 ⑥, 2 500 ⑥ V AC   | 1 NO: 4 000 V AC ⑥   | 1 500 V AC ⑥  |
| General data   |                     |   |   |  |   |
| Dimensions   | mm                  | 36,1 x 38,6 x 52,65 ⑥   | 46,8 x 38,6 x 66,1 ⑥  | 36,1 x 38,6 x 52,65 ⑥  | 26 x 53,7 x 75,5  |
| Connection diagrams (pin side view)  |                     |  |  |  |  |
| Note: polarity of the supply of the relays with DC coils - see www.relpol.com.pl |                     |   |   |  |   |
| version 2 CO   |                     |   |   |  |   |
| version 3 CO   |                     |   |   |  |   |
| version 2 NO ②   |                     |   |   |  |   |
| version 2 NO   |                     |   |   |  |   |
| Plug-in sockets for relays   |                     | GUC11S-V0 ⑦   |   | GUC11S-V0 ⑦  |   |
| Recognitions, certifications, directives   |                     |  |  |  |  |

② Type of insulation: basic

③ Type of clearance: micro-disconnection

④ Diagram: www.relpol.com.pl




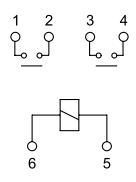
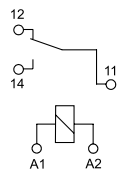
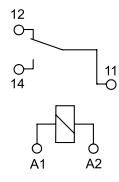



④ Type of insulation: reinforced

⑤ Type of clearance: full-disconnection



# Relays for industry

## industrial relays of small dimensions
















| R20   | R30N  | R40N  |
|---|---|---|
|                    |                    |                    |
| 1 NO, 2 NO  | 1 CO, 1 NO  | 1 CO, 1 NO  |
| AgSnO <sub>2</sub>  | AgSnO <sub>2</sub> , AgCdO ③  | AgSnO <sub>2</sub> , AgCdO ③  |
| 250 V / 440 V   | 240 V / 300 V   | 240 V / 300 V   |
| 1 NO: 30 A / 250 V AC<br>2 NO: 25 A / 250 V AC  | 1 NO: 30 A / 240 V AC ④<br>1 NO: 30 A / 14 V DC ⑤   | 1 NO: 40 A / 240 V AC ④<br>1 NO: 40 A / 30 V DC ⑤   |
| 24, 48, 115, 230 V  |   | 12, 24, 110, 120, 220 V   |
| 12, 24, 110 V   | 5, 12, 24, 48, 110 V  | 5, 12, 24, 48, 110 V  |
| 250 V AC  | 500 V AC  | 500 V AC  |
| 4 000 V AC ⑥<br>2 000 V AC ⑦  | 2 500 V AC ⑧<br>1 500 V AC ⑨  | 4 000 V AC ⑥<br>1 500 V AC ⑦  |
| 67 x 33 x 35  | 32,5 x 27,6 x 20,5  | 32,5 x 27,6 x 20,5  |
| <br>version 2 NO | <br>version 1 CO | <br>version 1 CO |
| <br>RoHS         | <br>RoHS         | <br>RoHS         |

① RUC, RUC-M: relays available in versions: for plug-in sockets; with adaptors for direct mounting on 35 mm rail mount; with cover with flange for mounting on panel; for PCB mounting  
 ② RUC-M: relays with permanent magnet whose magnetic field blows the electric arc between the contacts; for high DC loads  
 ③ RUC-M contact 1 NO: DC1 - 16 A / 24 V DC, 14 A / 110 V DC ④ RUC-M contacts 2 NO: DC1 - 16 A / 24 V DC, 10,5 A / 110 V DC  
 ⑤ RUC, RUC-M: for plug-in sockets ⑥ RUC: with horizontal adaptor (H) ⑦ GUC11S-V0: insulation rated voltage 250 V AC ⑧ Relpol S.A. is not responsible for usage relays with AgCdO contact material in categories of EEE where it is prohibited by the directive RoHS2 2011/65/EU. ⑨ R30N 1 CO: 30 A / 20 A (NO/NC) / 240 V AC, 14 V DC; R40N 1 CO: 40 A / 30 A (NO/NC) / 240 V AC, 30 V DC

































## Plug-in sockets for relays

|   |   |  |   |
|---|---|--|---|
| <p><b>GZT2</b> (856048)<br/>For R2N</p>      | <p><b>GZT3</b> (856049)<br/>For R3N</p>    | <p><b>GZT4</b> (856050)<br/>For R4N</p>      | <p><b>GZP4</b> (864324)<br/>For R2N, R4N</p>                                 |
| <p><b>GZM2</b> (857440)<br/>For R2N</p>      | <p><b>GZM3</b> (857412)<br/>For R3N</p>    | <p><b>GZM4</b> (857436)<br/>For R4N</p>      |  <p>GZP4-0400 GZT4-0040 G4 1052<br/>MP15 M... ZGZP4-2 ZGZP-2<br/>ZGZP4-8</p> |
| <p><b>GZ4</b> (2000538)<br/>For R4N</p>    | <p><b>GS4</b> (2613504)<br/>For R4N</p>  | <p><b>GZ2</b> (2000553)<br/>For R2M</p>   |   |
| <p><b>SU4/2D</b> (592051)<br/>For R2N</p>  | <p><b>SU4D</b> (592049)<br/>For R4N</p>  | <p><b>SU4/2L</b> (592050)<br/>For R2N</p>  | <p><b>SU4L</b> (592048)<br/>For R4N</p>                                    |
| <p><b>G4/2</b> (592057)<br/>For R2N</p>    | <p><b>G4</b> (592056)<br/>For R4N</p>    | <p><b>S2M</b> (592065)<br/>For R2M</p>     | <p><b>G2M</b> (592064)<br/>For R2M</p>                                     |

**ORDERING CODES:**  
 Signalling / protecting module - see page 26.  
 Interconnection strips - see page 27.

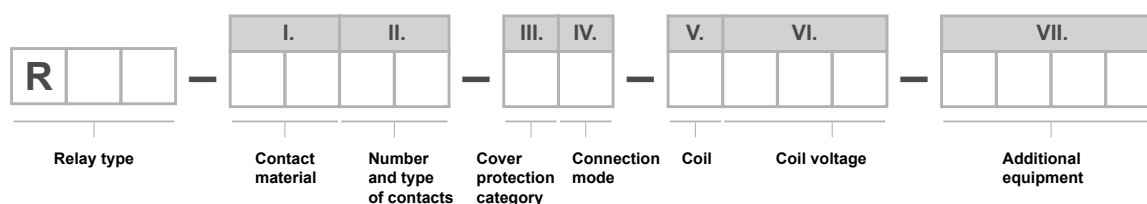


## Plug-in sockets for relays

|   |   |  |   |
|---|---|--|---|
| <p><b>PZ8 (592005)</b><br/>For R15 - 2 CO</p>   <p>PZ11 0031</p>      | <p><b>PZ11 (592001)</b><br/>For R15 - 3 CO</p>   | <p><b>GZU8 (592031)</b><br/>For R15 - 2 CO</p>   <p>GZU 1052</p>  | <p><b>GZU11 (592035)</b><br/>For R15 - 3 CO</p>    |
| <p><b>GZ8 (592012)</b><br/>For R15 - 2 CO</p>   <p>GZ 1050</p>        | <p><b>GZ11 (592017)</b><br/>For R15 - 3 CO</p>   | <p><b>GZP8 (2613505)</b><br/>For R15 - 2 CO</p>    <p>GZP-0054 GZP-0035</p>      | <p><b>GZP11 (2613506)</b><br/>For R15 - 3 CO</p>    <p>21, 41 COM3</p> |
| <p><b>GZ14U (592027)</b><br/>For R15 - 4 CO</p>    | <p><b>GZ14 (592022)</b><br/>For R15 - 4 CO</p>   <p>GZ14 0737</p> | <p><b>GZ14Z (858866)</b><br/>For R15 - 4 CO</p>    | <p><b>GZ14P (864515)</b><br/>For R15 - 4 CO</p>    |
| <p><b>GOP8 (592067)</b><br/>For R15 - 2 CO</p>   <p>R159 1051</p> | <p><b>GOP11 (592069)</b><br/>For R15 - 3 CO</p>    | <p><b>GOP14 (592071)</b><br/>For R15 - 4 CO</p>    <p>R15 0736 R15 5922</p> | <p><b>GUC11S-VO (862593)</b><br/>For RUC, RUC-M</p>   <p>MBA</p>  |



# Relays for industry

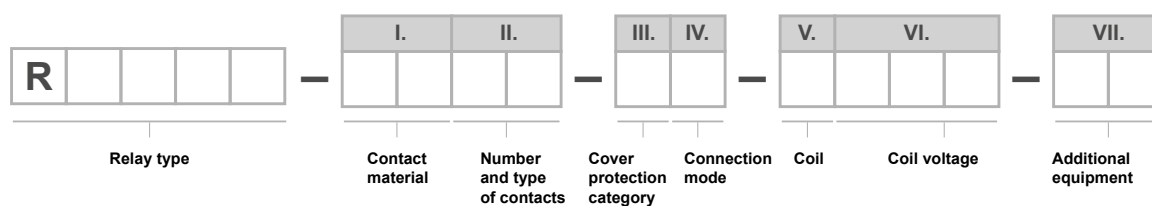


|   | Relay type |    |     |    |     |    |     |    |                     |    |                     |    |                     |    |    |    |
|---|------------|----|-----|----|-----|----|-----|----|---------------------|----|---------------------|----|---------------------|----|----|----|
|   | R2N        |    | R3N |    | R4N |    | R2M |    | R15<br>version 2 CO |    | R15<br>version 3 CO |    | R15<br>version 4 CO |    |    |    |
| <b>I. Contact material</b>  |            |    |     |    |     |    |     |    |                     |    |                     |    |                     |    |    |    |
| 20 - AgNi   | •          | •  | •   | •  | •   | •  | •   | •  | •                   | •  | •                   | •  | •                   | •  | •  |    |
| 21 - AgNi/Au flash gold plating   | •          | •  | •   | •  | •   | •  | •   | •  | •                   | •  | •                   | •  | •                   | •  | •  |    |
| 23 - AgNi/Au hard gold plating  |            |    | •   |    |     |    |     |    |                     |    |                     | •  |                     |    |    |    |
| 30 - AgSnO <sub>2</sub>   |            |    |     |    |     |    |     |    |                     |    |                     |    |                     |    | •  |    |
| <b>II. Number and type of contacts</b>  |            |    |     |    |     |    |     |    |                     |    |                     |    |                     |    |    |    |
| 12 - 2 CO   | •          |    |     |    |     |    |     |    |                     | •  |                     |    |                     |    |    |    |
| 13 - 3 CO   |            |    |     | •  |     |    |     |    |                     |    |                     |    | •                   |    |    |    |
| 14 - 4 CO   |            |    |     |    |     |    |     |    |                     |    |                     |    |                     |    | •  |    |
| <b>III. Cover protection category</b>   |            |    |     |    |     |    |     |    |                     |    |                     |    |                     |    |    |    |
| 2 - IP 40   | •          | •  | •   | •  | •   | •  | •   | •  | •                   | •  | •                   | •  | •                   | •  | •  |    |
| <b>IV. Connection mode</b>  |            |    |     |    |     |    |     |    |                     |    |                     |    |                     |    |    |    |
| 3 - for sockets   | •          |    | •   |    | •   |    | •   |    | •                   |    | •                   |    | •                   |    | •  |    |
| 5 - for PCB   |            |    |     |    |     |    |     |    |                     |    |                     |    |                     |    |    |    |
| <b>V. Coil</b>  |            |    |     |    |     |    |     |    |                     |    |                     |    |                     |    |    |    |
| 1 - DC  | •          | •  | •   | •  | •   | •  | •   | •  | •                   | •  | •                   | •  | •                   | •  | •  |    |
| 3 - AC  |            |    |     |    |     |    |     |    |                     |    |                     |    |                     |    | •  |    |
| 5 - AC  | •          | •  | •   | •  | •   | •  | •   | •  | •                   | •  | •                   | •  | •                   | •  | •  |    |
| <b>VI. Coil voltage</b>   | AC         | DC | AC  | DC | AC  | DC | AC  | DC | AC                  | DC | AC                  | DC | AC                  | DC | AC | DC |
| 012 - 12 V  | •          | •  | •   | •  | •   | •  | •   | •  | •                   | •  | •                   | •  | •                   | •  | •  | •  |
| 024 - 24 V  | •          | •  | •   | •  | •   | •  | •   | •  | •                   | •  | •                   | •  | •                   | •  | •  | •  |
| 110 - 110 V   | •          | •  | •   | •  | •   | •  | •   | •  | •                   | •  | •                   | •  | •                   | •  | •  | •  |
| 220 - 220 V   | •          | •  | •   | •  | •   | •  | •   | •  | •                   | •  | •                   | •  | •                   | •  | •  | •  |
| 230 - 230 V   | •          | •  | •   | •  | •   | •  | •   | •  | •                   | •  | •                   | •  | •                   | •  | •  | •  |
| ... - other voltages: see data tables (pages 30, 31) or product catalog (full edition) <a href="http://www.relpol.pl/en/Download/Product-Catalogs">www.relpol.pl/en/Download/Product-Catalogs</a> |            |    |     |    |     |    |     |    |                     |    |                     |    |                     |    |    |    |
| <b>VII. Additional equipment</b>  | AC         | DC | AC  | DC | AC  | DC | AC  | DC | AC                  | DC | AC                  | DC | AC                  | DC | AC | DC |
| W - mechanical indicator  | •          |    | •   |    | •   |    | •   |    | •                   |    | •                   |    | •                   |    | •  |    |
| T - test button   | •          |    | •   |    | •   |    | •   |    | •                   |    | •                   |    | •                   |    | •  |    |
| K - test button   |            |    |     |    |     |    |     |    |                     |    |                     |    |                     |    |    | •  |
| L - LED indicator   | •          |    | •   |    | •   |    | •   |    | •                   |    | •                   |    | •                   |    | •  |    |
| D - diode   |            | •  |     | •  |     | •  |     | •  |                     | •  |                     | •  |                     | •  |    | •  |
| V - varistor  |            |    |     |    |     |    |     |    |                     | •  |                     | •  |                     | •  |    | •  |

## EXAMPLE ORDERING CODES

| Index  | Code                 | Description  |
|--------|----------------------|--|
| 860398 | R2N-2012-23-1024-WTL | two changeover contacts 12 A (AgNi), coil voltage 24 V DC    |
| 860401 | R2N-2012-23-5230-WTL | two changeover contacts 12 A (AgNi), coil voltage 230 V AC   |
| 860404 | R3N-2013-23-1024-WTL | three changeover contacts 10 A (AgNi), coil voltage 24 V DC  |
| 860408 | R3N-2013-23-5230-WTL | three changeover contacts 10 A (AgNi), coil voltage 230 V AC |
| 860411 | R4N-2014-23-1024-WTL | four changeover contacts 6 A (AgNi), coil voltage 24 V DC    |
| 860414 | R4N-2014-23-5230-WTL | four changeover contacts 6 A (AgNi), coil voltage 230 V AC   |
| 617171 | R2M-2012-23-1024     | two changeover contacts 5 A (AgNi), coil voltage 24 V DC     |
| 802541 | R2M-2012-23-5230     | two changeover contacts 5 A (AgNi), coil voltage 230 V AC    |
| 802882 | R15-2012-23-1024-WT  | two changeover contacts 10 A (AgNi), coil voltage 24 V DC    |
| 804299 | R15-2012-23-5230-WT  | two changeover contacts 10 A (AgNi), coil voltage 230 V AC   |
| 802846 | R15-2013-23-1024-WT  | three changeover contacts 10 A (AgNi), coil voltage 24 V DC  |
| 802874 | R15-2013-23-5230-WT  | three changeover contacts 10 A (AgNi), coil voltage 230 V AC |
| 863812 | R15-2014-23-1024     | four changeover contacts 10 A (AgNi), coil voltage 24 V DC   |
| 863820 | R15-2014-23-3230-K   | four changeover contacts 10 A (AgNi), coil voltage 230 V AC  |

# Relays for industry







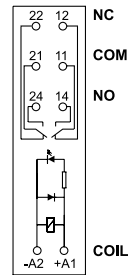
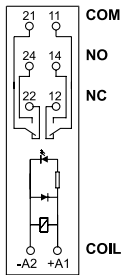
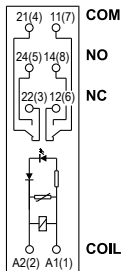
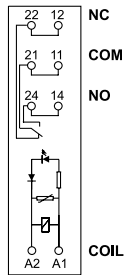
|   | Relay type |    |       |    |      |    |     |    |      |    |      |    |
|---|------------|----|-------|----|------|----|-----|----|------|----|------|----|
|   | RUC        |    | RUC-M |    | RG25 |    | R20 |    | R30N |    | R40N |    |
| <b>I. Contact material</b>  |            |    |       |    |      |    |     |    |      |    |      |    |
| 10 - AgCdO  |            |    |       |    |      |    |     |    |      | •  |      | •  |
| 20 - AgNi   | •          |    | •     |    |      |    |     |    |      |    |      |    |
| 30 - AgSnO <sub>2</sub>   | •          |    | •     |    | •    |    | •   |    | •    |    |      | •  |
| <b>II. Number and type of contacts</b>  |            |    |       |    |      |    |     |    |      |    |      |    |
| 11 - 1 CO   |            |    |       |    |      |    |     |    |      | •  |      | •  |
| 12 - 2 CO   | •          |    |       |    |      |    |     |    |      |    |      |    |
| 13 - 3 CO   | •          |    |       |    |      |    |     |    |      |    |      |    |
| 21 - 1 NO   |            |    |       |    |      |    | •   |    | •    |    |      | •  |
| 22 - 2 NO   | •          |    |       |    | •    |    | •   |    |      |    |      |    |
| 23 - 3 NO   | •          |    |       |    |      |    |     |    |      |    |      |    |
| 51 - 1 NO gap 6 mm  |            |    | •     |    |      |    |     |    |      |    |      |    |
| 52 - 2 NO gap 3 mm  | •          |    | •     |    |      |    |     |    |      |    |      |    |
| 53 - 3 NO gap 3 mm  | •          |    |       |    |      |    |     |    |      |    |      |    |
| <b>III. Cover protection category</b>   |            |    |       |    |      |    |     |    |      |    |      |    |
| 2 - IP 00   | •          |    | •     |    |      |    |     |    |      |    |      |    |
| 2 - IP 20   |            |    |       |    | •    |    |     |    |      |    |      |    |
| 2 - IP 64   |            |    |       |    |      |    |     |    | •    |    |      | •  |
| 4 - IP 00 mounting flange   | •          |    | •     |    |      |    |     |    |      |    |      |    |
| V - IP 00 adaptor   | •          |    | •     |    |      |    |     |    |      |    |      |    |
| H - IP 00 adaptor   | •          |    | •     |    |      |    |     |    |      |    |      |    |
| 8 - IP 67   |            |    |       |    |      |    |     |    |      | •  |      | •  |
| 9 - IP 50 mounting flange   |            |    |       |    |      |    | •   |    |      |    |      |    |
| <b>IV. Connection mode</b>  |            |    |       |    |      |    |     |    |      |    |      |    |
| 5 - for PCB   | •          |    | •     |    |      |    |     |    | •    |    |      | •  |
| 6 - faston 187 and for sockets  | •          |    | •     |    |      |    |     |    |      |    |      |    |
| 6 - faston 250  |            |    |       |    |      |    |     | •  |      |    |      |    |
| A - faston 250  | •          |    |       |    |      |    |     |    |      |    |      |    |
| 8 - screw terminals   |            |    |       |    | •    |    |     |    |      |    |      |    |
| <b>V. Coil</b>  |            |    |       |    |      |    |     |    |      |    |      |    |
| 1 - DC  | •          |    |       |    | •    |    | •   |    | •    |    | •    | •  |
| W - DC reinforced   | •          |    | •     |    |      |    |     |    |      |    |      |    |
| 3 - AC  | •          |    |       |    | •    |    |     |    |      |    |      |    |
| 5 - AC  | •          |    | •     |    |      |    | •   |    |      |    |      | •  |
| <b>VI. Coil voltage</b>   | AC         | DC | AC    | DC | AC   | DC | AC  | DC | AC   | DC | AC   | DC |
| 012 - 12 V  | •          | •  | •     | •  | •    | •  | •   | •  | •    | •  | •    | •  |
| 024 - 24 V  | •          | •  | •     | •  | •    | •  | •   | •  | •    | •  | •    | •  |
| 110 - 110 V   |            | •  |       | •  |      | •  |     | •  |      | •  |      | •  |
| 220 - 220 V   | •          | •  |       | •  |      | •  |     | •  |      | •  |      | •  |
| 230 - 230 V   | •          |    | •     |    | •    |    | •   |    | •    |    | •    |    |
| ... - other voltages: see data tables (pages 32, 33) or product catalog (full edition) <a href="http://www.relpol.pl/en/Download/Product-Catalogs">www.relpol.pl/en/Download/Product-Catalogs</a> |            |    |       |    |      |    |     |    |      |    |      |    |
| <b>VII. Additional equipment</b>  |            |    |       |    |      |    |     |    |      |    |      |    |
| K - test button   | •          |    |       |    |      |    |     |    |      |    |      |    |
| L - LED indicator   | •          |    | •     |    |      |    |     |    |      |    |      |    |

## EXAMPLE ORDERING CODES

| Index   | Code               | Description  |
|---------|--------------------|--|
| 862682  | RUC-3013-26-1024   | three changeover contacts 16 A (AgSnO <sub>2</sub> ), coil voltage 24 V DC               |
| 864119  | RUC-3022-26-5230   | two normally open contacts 16 A (AgSnO <sub>2</sub> ), coil voltage 230 V AC             |
| 864152  | RUC-M-3051-26-5230 | one normally open contact 16 A (AgSnO <sub>2</sub> ), coil voltage 230 V AC              |
| 862685  | RUC-M-3052-26-W024 | two normally open contacts 16 A (AgSnO <sub>2</sub> ), coil voltage 24 V DC (reinforced) |
| 862722  | RG25-3022-28-3230  | two normally open contacts 25 A (AgSnO <sub>2</sub> ), coil voltage 230 V AC             |
| 2611749 | R20-3021-96-1024   | one normally open contact 30 A (AgSnO <sub>2</sub> ), coil voltage 24 V DC               |
| 2611761 | R20-3022-96-5230   | two normally open contacts 25 A (AgSnO <sub>2</sub> ), coil voltage 230 V AC             |
| 2614729 | R30N-3011-85-1024  | one changeover contact 30 A (AgSnO <sub>2</sub> ), coil voltage 24 V DC                  |
| 2614823 | R40N-3021-85-1024  | one normally open contact 40 A (AgSnO <sub>2</sub> ), coil voltage 24 V DC               |

# Relays for industry

## interface relays - sets

| Type                                      | PI84 - GZT80   | PI84 - GZM80   | PI84 - GZP80   | PI85 - GZT80   |
|---|--|--|--|--|
|   |   |   |    |   |
| <b>Contact data</b>                       |  |  |  |  |
| Number and type of contacts               | 2 CO   | 2 CO   | 2 CO   | 1 CO   |
| Contact material                          | AgNi, AgNi/Au ②, AgSnO <sub>2</sub>  | AgNi, AgNi/Au ②, AgSnO <sub>2</sub>  | AgNi, AgNi/Au ②  | AgNi, AgNi/Au ②, AgSnO <sub>2</sub>  |
| Rated / max. AC switching voltage         | 250 V / 300 V  | 250 V / 300 V  | 250 V / 300 V  | 250 V / 300 V  |
| Rated load (capacity)                     | AC1 8 A / 250 V AC<br>AC15 3 A / 120 V (B300)<br>AC15 1,5 A / 240 V (B300)<br>DC1 8 A / 24 V DC ③<br>DC13 0,22 A / 120 V (R300)<br>DC13 0,1 A / 250 V (R300) | AC1 8 A / 250 V AC<br>AC15 3 A / 120 V (B300)<br>AC15 1,5 A / 240 V (B300)<br>DC1 8 A / 24 V DC ③<br>DC13 0,22 A / 120 V (R300)<br>DC13 0,1 A / 250 V (R300) | AC1 8 A / 250 V AC<br>AC15 3 A / 120 V (B300)<br>AC15 1,5 A / 240 V (B300)<br>DC1 8 A / 24 V DC ③<br>DC13 0,22 A / 120 V (R300)<br>DC13 0,1 A / 250 V (R300) | AC1 16 A / 250 V AC ④<br>AC15 3 A / 120 V (B300)<br>AC15 1,5 A / 240 V (B300)<br>DC1 16 A / 24 V DC ③<br>DC13 0,22 A / 120 V (R300)<br>DC13 0,1 A / 250 V (R300) |
| Motor load                                | 0,37 kW ⑦  | 0,37 kW ⑦  | 0,37 kW ⑦  | 0,5 kW ⑦   |
| <b>Coil data</b>                          |  |  |  |  |
| Rated voltage AC                          | 12, 24, 48, 120, 230, 240 V  | 12, 24, 120, 230, 240 V  | 12, 24, 48, 120, 230 V   | 12, 24, 48, 120, 230, 240 V  |
| Rated voltage DC                          | 12, 24, 48, 110 V  | 12, 24, 48, 60, 110 V  | 12, 24, 48, 110 V  | 12, 24, 48, 110 V  |
| <b>Insulation</b>                         |  |  |  |  |
| Insulation rated voltage                  | 250 V AC   | 300 V AC   | 250 V AC   | 250 V AC   |
| Dielectric strength                       |  |  |  |  |
| • coil - contacts                         | 5 000 V AC ⑤   | 5 000 V AC ⑤   | 5 000 V AC ⑤   | 5 000 V AC ⑤   |
| • contact clearance                       | 1 000 V AC ⑥   | 1 000 V AC ⑥   | 1 000 V AC ⑥   | 1 000 V AC ⑥   |
| <b>General data</b>                       |  |  |  |  |
| Dimensions mm                             | 80 x 15,6 x 67   | 81,6 x 15,9 x 67   | 97 x 15,9 x 75,8   | 80 x 15,6 x 67   |
| Connection diagrams (terminals side view) | <br>version 2 CO, DC  | <br>version 2 CO, DC  | <br>version 2 CO, AC  | <br>version 1 CO, AC  |
| Operational relays                        | RM84   | RM84   | RM84   | RM85   |
| Plug-in sockets                           | GZT80  | GZM80  | GZP80  | GZT80 ⑧  |
| Indicator                                 | module type M...   | module type M...   | module type M...   | module type M...   |
| Recognitions, certifications, directives  | CE EAC RoHS  | CE EAC RoHS  | CE EAC RoHS  | CE EAC RoHS  |


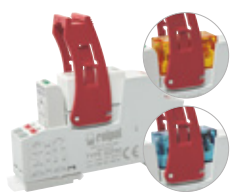



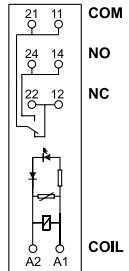
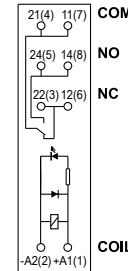
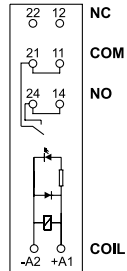
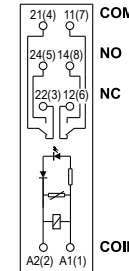
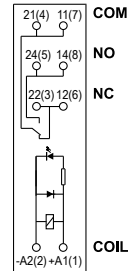
② Hard gold plating      ④ Type of insulation: reinforced  
⑦ AC3 according to IEC 60947-4-1, 1-phase motor

⑤ Type of clearance: micro-disconnection  
⑧ Diagram: [www.repol.com.pl](http://www.repol.com.pl)



# Relays for industry

## interface relays - sets

| PI85 - GZM80   | PI85 - GZP80   | PI85 inrush - GZT80  | PI84P - GZP80  | PI85P - GZP80   |
|--|--|--|--|---|
|   |   |   |                        |                        |
| 1 CO   | 1 CO   | 1 NO   | 2 CO   | 1 CO  |
| AgNi, AgNi/Au Ⓣ, AgSnO <sub>2</sub>  | AgNi, AgNi/Au Ⓣ  | AgSnO <sub>2</sub>   | AgNi   | AgNi  |
| 250 V / 300 V  | 250 V / 300 V  | 250 V / 300 V  | 250 V / 300 V  | 250 V / 300 V   |
| 16 A / 250 V AC Ⓢ<br>3 A / 120 V (B300)<br>1,5 A / 240 V (B300)<br>16 A / 24 V DC Ⓣ<br>0,22 A / 120 V (R300)<br>0,1 A / 250 V (R300) | 16 A / 250 V AC Ⓢ<br>3 A / 120 V (B300)<br>1,5 A / 240 V (B300)<br>16 A / 24 V DC Ⓣ<br>0,22 A / 120 V (R300)<br>0,1 A / 250 V (R300) | 16 A / 250 V AC Ⓢ<br>3 A / 120 V (B300)<br>1,5 A / 240 V (B300)<br>16 A / 24 V DC Ⓣ<br>0,22 A / 120 V (R300)<br>0,1 A / 250 V (R300) | 8 A / 250 V AC   | 16 A / 250 V AC Ⓢ   |
| 0,5 kW Ⓣ   | 0,5 kW Ⓣ   | 0,75 kW Ⓣ  |  |   |
| 12, 24, 120, 230, 240 V  | 12, 24, 48, 120, 230 V   |  | 24, 115, 230 V   | 24, 115, 230 V  |
| 12, 24, 48, 60, 110 V  | 12, 24, 48, 110 V  | 12, 24, 110 V  | 12, 24, 48, 110 V  | 12, 24, 48, 110 V   |
| 300 V AC   | 250 V AC   | 250 V AC   | 300 V AC   | 300 V AC  |
| 5 000 V AC Ⓢ<br>1 000 V AC Ⓣ   | 5 000 V AC Ⓢ<br>1 000 V AC Ⓣ   | 5 000 V AC Ⓢ<br>1 000 V AC Ⓣ   | 5 000 V AC Ⓢ<br>1 000 V AC Ⓣ   | 5 000 V AC Ⓢ<br>1 000 V AC Ⓣ  |
| 81,6 x 15,9 x 67   | 97 x 15,9 x 75,8   | 80 x 15,6 x 67   | 97 x 15,9 x 75,8   | 97 x 15,9 x 75,8  |
| <br>version 1 CO, AC                              | <br>version 1 CO, DC                              | <br>version 1 NO, DC                              | <br>version 2 CO, AC | <br>version 1 CO, DC |
| RM85<br>GZM80 Ⓢ<br>module type M...  | RM85<br>GZP80 Ⓢ<br>module type M...  | RM85 inrush<br>GZT80 Ⓢ<br>module type M...   | RMP84<br>GZP80<br>module type M...   | RMP85<br>GZP80 Ⓢ<br>module type M...  |
| CE EAC<br>RoHS   | CE c US EAC<br>RoHS  | CE EAC<br>RoHS   | CE c US EAC<br>RoHS  | CE<br>RoHS  |





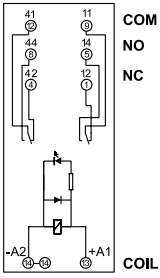
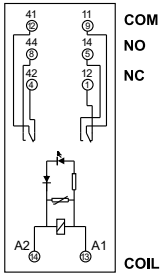
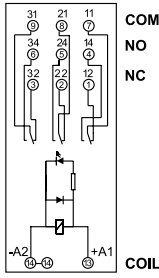
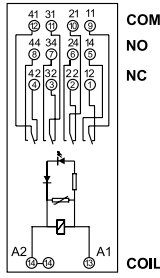




Ⓢ Loads above 12 A require bridging pairs of terminals: 11 with 21, 12 with 22, 14 with 24 - see [www.repol.com.pl](http://www.repol.com.pl)





# Relays for industry

## interface relays - sets

| Type   | PIR2 - GZM2   | PIR2 - GZP4   | PIR3 - GZM3  | PIR4 - GZM4   |
|--|---|---|--|---|
|  |                        |                        |                        |                        |
| <b>Contact data</b>  |   |   |  |   |
| Number and type of contacts  | 2 CO  | 2 CO  | 3 CO   | 4 CO  |
| Contact material   | AgNi  | AgNi  | AgNi   | AgNi  |
| Rated / max. AC switching voltage                                  | 250 V / 300 V   | 250 V / 300 V   | 250 V / 300 V  | 250 V / 300 V   |
| Rated load (capacity)  | 12 A / 250 V AC   | 12 A / 250 V AC   | 10 A / 250 V AC  | 7 A / 230 V AC (VDE)<br>6 A / 250 V AC  |
| AC1  | 3 A / 120 V (B300)  | 3 A / 120 V (B300)  | 3 A / 120 V (B300)   | 1,5 A / 120 V (B300)  |
| AC15   | 1,5 A / 240 V (B300)  | 1,5 A / 240 V (B300)  | 1,5 A / 240 V (B300)   | 0,75 A / 240 V (B300)   |
| DC1  | 12 A / 24 V DC ⑤  | 12 A / 24 V DC ⑤  | 10 A / 24 V DC ⑤   | 6 A / 24 V DC ⑤   |
| DC13   | 0,22 A / 120 V (R300)   | 0,22 A / 120 V (R300)   | 0,22 A / 120 V (R300)  | 0,22 A / 120 V (R300)   |
| DC13   | 0,1 A / 250 V (R300)  | 0,1 A / 250 V (R300)  | 0,1 A / 250 V (R300)   | 0,1 A / 250 V (R300)  |
| Motor load   | 0,37 kW ⑦   | 0,37 kW ⑦   | 0,37 kW ⑦  | 0,125 kW ⑦  |
| <b>Input circuit</b>   |   |   |  |   |
| Rated voltage AC   | 12, 24, 48, 120, 230 V  | 12, 24, 48, 120, 230 V  | 12, 24, 48, 120, 230 V   | 12, 24, 48, 120, 230 V  |
| DC   | 12, 24, 48, 110 V   | 12, 24, 48, 110 V   | 12, 24, 48, 110 V  | 12, 24, 48, 110 V   |
| AC/DC  |   |   |  |   |
| <b>Insulation</b>  |   |   |  |   |
| Insulation rated voltage   | 300 V AC  | 300 V AC  | 300 V AC   | 300 V AC  |
| Dielectric strength  |   |   |  |   |
| • coil - contacts  | 2 500 V AC ⑥  | 2 500 V AC ⑥  | 2 500 V AC ⑥   | 2 500 V AC ⑥  |
| • contact clearance  | 1 500 V AC ⑥  | 1 500 V AC ⑥  | 1 500 V AC ⑥   | 1 500 V AC ⑥  |
| <b>General data</b>  |   |   |  |   |
| Dimensions mm  | 75 x 27 x 82  | 97 x 31 x 75,8  | 75 x 27 x 82   | 75 x 27 x 82  |
| Connection diagrams (PI85P, PIR2, PIR3, PIR4: terminals side view) | <br>version 2 CO, DC | <br>version 2 CO, AC | <br>version 3 CO, DC | <br>version 4 CO, AC |
| Operational relays   | R2N   | R2N   | R3N  | R4N   |
| Plug-in sockets  | GZM2  | GZP4  | GZM3   | GZM4  |
| Indicator  | module type M...  | module type M...  | module type M...   | module type M...  |
| Recognitions, certifications, directives                           |                      |                      |                     |                      |

⑤ Hard gold plating

⑥ Type of clearance: micro-disconnection

⑦ AC3 according to IEC 60947-4-1, 1-phase motor

⑧ Type of insulation: basic


⑨ Type of insulation: reinforced

⑩ Diagram: www.repol.com.pl



# Relays for industry

## interface relays - narrow profile

| PIR4 - GZP4  | PI6-1P  | PI6-1T  | PIR6W-1P-...  |
|--|---|---|---|
|                           |                                        |                        |                                       |
| 4 CO   | 1 CO  | 1 NO (triac)  | 1 CO  |
| AgNi, AgNi/Au Ⓣ  | AgSnO <sub>2</sub> ,<br>AgSnO <sub>2</sub> /Au Ⓣ  |   | AgSnO <sub>2</sub> ,<br>AgSnO <sub>2</sub> /Au Ⓣ  |
| 250 V / 300 V  | AgSnO <sub>2</sub> : 250 V / 400 V  | 400 V / 440 V   | AgSnO <sub>2</sub> : 250 V / 400 V  |
| 7 A / 230 V AC (VDE)<br>6 A / 250 V AC<br>1,5 A / 120 V (B300)<br>0,75 A / 240 V (B300)<br>6 A / 24 V DC Ⓣ | AgSnO <sub>2</sub> : 6 A / 250 V AC<br><br>AgSnO <sub>2</sub> : 6 A / 24 V DC<br>AgSnO <sub>2</sub> : 0,15 A / 250 V DC | 1,2 A / 400 V AC  | AgSnO <sub>2</sub> : 6 A / 250 V AC<br><br>AgSnO <sub>2</sub> : 6 A / 24 V DC<br>AgSnO <sub>2</sub> : 0,15 A / 250 V DC |
| 0,22 A / 120 V (R300)<br>0,1 A / 250 V (R300)  |   |   |   |
| 0,125 kW Ⓣ   |   |   |   |
| 12, <b>24</b> , 48, 120, <b>230</b> V  |   |   | 230 V   |
| 12, <b>24</b> , 48, 110 V  | 12, <b>24</b> , 36 V  | 5...32 V  | 12, <b>24</b> , 36 V  |
|  | 24, 42, 115, <b>230</b> V   | 24, 230 V   | 24, 42, 115, <b>230</b> V   |
| 300 V AC   | 400 V AC  | 600 V AC  | 250 V AC  |
| 2 500 V AC Ⓣ<br>1 500 V AC Ⓣ   | 4 000 V AC Ⓣ<br>1 000 V AC Ⓣ  | 4 000 V AC Ⓣ  | 4 000 V AC Ⓣ<br>1 000 V AC Ⓣ  |
| 97 x 31 x 75,8   | 93,8 x 6,2 x 80   | 93,8 x 6,2 x 80   | 98,5 x 6,2 x 85,5   |
| <br>version 4 CO, DC    | <br>version 1 CO, DC                 | <br>version 1 NO, DC | <br>version 1 CO, DC                |
| R4N<br>GZP4<br>module type M...  | LED green   | LED green   | RM699BV<br>PI6W-1P-...<br>LED green   |
|                         |                                      |                      |                                     |





# Relays for industry

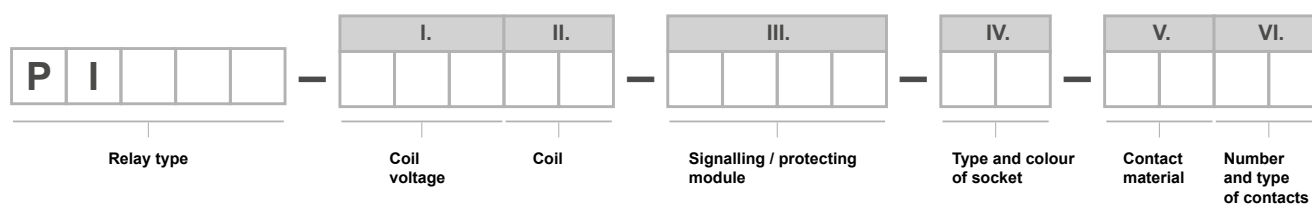
## interface relays - narrow profile

| SIR6W-...   | SIR6W-...   | SIR6WB-...  | SIR6WB-...   |
|---|---|---|--|
| contacts  | triac, transistor   | contacts  | triac, transistor  |
|    |    |    |    |
| 1 CO (R) ②  | 1 NO (T/C/O) ③  | 1 CO (R) ②  | 1 NO (T/C/O) ③   |
| AgSnO <sub>2</sub> (R) ②,<br>AgSnO <sub>2</sub> /Au ②   |   | AgSnO <sub>2</sub> (R) ②,<br>AgSnO <sub>2</sub> /Au ②   |  |
| 400 V / 250 V (R) ②   | 240 V (T) /<br>48 V (C), 24 V (O) ③   | 400 V / 250 V (R) ②   | 240 V (T) /<br>48 V (C), 24 V (O) ③  |
| 6 A / 250 V AC (R) ②<br>3 A / 120 V (B300)<br>1,5 A / 240 V (B300)<br>6 A / 30 V DC (R)<br>0,15 A / 250 V DC (R)<br>0,22 A / 120 V (R300)<br>0,1 A / 250 V (R300) | 1 A / 240 V AC (T)<br><br>1 A / 48 V DC (C)<br>2 A / 24 V DC (O) ③                  | 6 A / 250 V AC (R) ②<br>3 A / 120 V (B300)<br>1,5 A / 240 V (B300)<br>6 A / 30 V DC (R)<br>0,15 A / 250 V DC (R)<br>0,22 A / 120 V (R300)<br>0,1 A / 250 V (R300) | 1 A / 240 V AC (T)<br><br>1 A / 48 V DC (C)<br>2 A / 24 V DC (O) ③                   |
| 0,186 kW ④  |   | 0,186 kW ④  |  |
|   |   |   |  |
| 6, 12, 24 V ④   | 6, 12, 24 V ④   | 6, 12, 24 V ④   | 6, 12, 24 V ④  |
| 12, 24, 48, 60,<br>110...125, 220...240 V   | 12, 24, 48, 60,<br>110...125, 220...240 V   | 12, 24, 48, 60,<br>110...125, 220...240 V   | 12, 24, 48, 60,<br>110...125, 220...240 V  |
|   |   |   |  |
| 250 V AC  | 250 V AC  | 250 V AC  | 250 V AC   |
| 4 000 V AC ④<br>1 000 V AC ③ (R) ②  | 4 000 V AC  | 4 000 V AC ④<br>1 000 V AC ③ (R) ②  | 4 000 V AC   |
|   |   |   |  |
| 88,6 x 6,2 x 76   | 88,6 x 6,2 x 76   | 95 x 6,2 x 76,6   | 95 x 6,2 x 76,6  |
|    |  |    |  |
| version 1 CO (R) ②  | version 1 NO (T/C/O) ③  | version 1 CO (R) ②  | version 1 NO (T/C/O) ③   |
| RM699BV ②<br>6W-...<br>LED green  | RSR30 ③<br>6W-...<br>LED green  | RM699BV ②<br>6WB-...<br>LED green   | RSR30 ③<br>6WB-...<br>LED green  |
|    |  |    |  |

- ② Version (R) - operational electromagnetic relay
- ③ Versions (T/C/O) - operational solid state relays
- ④ Fixed polarization of input voltage (+A1, -A2)



# Relays for industry



|   | Relay type     |    |                |    |                |    |       |    |       |    |      |    |      |    |
|---|----------------|----|----------------|----|----------------|----|-------|----|-------|----|------|----|------|----|
|   | PI84           |    | PI85           |    | PI85<br>inrush |    | PI84P |    | PI85P |    | PIR2 |    | PIR4 |    |
| I. Coil voltage   | AC             | DC | AC             | DC | DC             | AC | DC    | AC | DC    | AC | DC   | AC | DC   | AC |
| 012 - 12 V  | •              | •  | •              | •  | •              | •  | •     | •  | •     | •  | •    | •  | •    | •  |
| 024 - 24 V  | •              | •  | •              | •  | •              | •  | •     | •  | •     | •  | •    | •  | •    | •  |
| 110 - 110 V   |                | •  |                | •  | •              |    | •     |    | •     |    | •    |    | •    | •  |
| 230 - 230 V   | •              |    | •              |    |                | •  |       | •  |       | •  |      | •  |      | •  |
| ... - other voltages: see data tables (pages 38, 39, 40, 41) or product catalog (full edition) <a href="http://www.relpol.pl/en/Download/Product-Catalogs">www.relpol.pl/en/Download/Product-Catalogs</a> |                |    |                |    |                |    |       |    |       |    |      |    |      |    |
| II. Coil  |                |    |                |    |                |    |       |    |       |    |      |    |      |    |
| DC - DC   | •              |    | •              |    | •              | •  |       | •  |       | •  |      | •  |      | •  |
| AC - AC   | •              |    | •              |    |                | •  |       | •  |       | •  |      | •  |      | •  |
| III. Signalling / protecting module   |                |    |                |    |                |    |       |    |       |    |      |    |      |    |
| M41G - 6/24 V DC (LED + diode D)  | •              |    | •              |    | •              | •  |       | •  |       | •  |      | •  |      | •  |
| M43G - 110/230 V DC (LED + diode D)   | •              |    | •              |    | •              | •  |       | •  |       | •  |      | •  |      | •  |
| M91G - 6/24 V AC/DC (LED + varistor)  | •              |    | •              |    | •              | •  |       | •  |       | •  |      | •  |      | •  |
| M93G - 110/240 V AC/DC (LED + varistor)   | •              |    | •              |    | •              | •  |       | •  |       | •  |      | •  |      | •  |
| IV. Type and colour of socket   |                |    |                |    |                |    |       |    |       |    |      |    |      |    |
| TS - GZT80 grey   | •              |    | •              |    | •              |    |       |    |       |    |      |    |      |    |
| MS - GZM80 grey   | •              |    | •              |    |                |    |       |    |       |    |      |    |      |    |
| PS - GZP80 grey   | •              |    |                |    |                |    | •     |    | •     |    |      |    |      |    |
| PS - GZP4 grey  |                |    |                |    |                |    |       |    |       |    | •    |    |      | •  |
| V. Contact material   |                |    |                |    |                |    |       |    |       |    |      |    |      |    |
| 20 - AgNi   | •              |    | •              |    |                | •  |       | •  |       | •  |      | •  |      | •  |
| 23 - AgNi/Au hard gold plating  | •              |    | •              |    |                |    |       |    |       |    |      |    |      | •  |
| 30 - AgSnO <sub>2</sub>   | • GZT80, GZM80 |    | • GZT80, GZM80 |    | •              |    |       |    |       |    |      |    |      |    |
| VI. Number and type of contacts   |                |    |                |    |                |    |       |    |       |    |      |    |      |    |
| 11 - 1 CO   |                |    | •              |    |                |    |       |    | •     |    |      |    |      |    |
| 21 - 1 NO   |                |    |                |    | •              |    |       |    |       |    |      |    |      |    |
| 12 - 2 CO   | •              |    |                |    |                |    | •     |    |       |    | •    |    |      |    |
| 14 - 4 CO   |                |    |                |    |                |    |       |    |       |    |      |    |      | •  |

## EXAMPLE ORDERING CODES

| Index  | Code                     | Description  |
|--------|--------------------------|--|
| 862104 | PI84-024DC-M41G-TS-2012  | two changeover contacts 8 A (AgNi), coil voltage 24 V DC                 |
| 862126 | PI84-230AC-M93G-TS-3012  | two changeover contacts 8 A (AgSnO <sub>2</sub> ), coil voltage 230 V AC |
| 862190 | PI84-024DC-M41G-MS-2012  | two changeover contacts 8 A (AgNi), coil voltage 24 V DC                 |
| 862197 | PI84-230AC-M93G-MS-3012  | two changeover contacts 8 A (AgSnO <sub>2</sub> ), coil voltage 230 V AC |
| 864833 | PI84-024DC-M41G-PS-2012  | two changeover contacts 8 A (AgNi), coil voltage 24 V DC                 |
| 864835 | PI84-230AC-M93G-PS-2012  | two changeover contacts 8 A (AgNi), coil voltage 230 V AC                |
| 862110 | PI85-024DC-M41G-TS-2011  | one changeover contact 16 A (AgNi), coil voltage 24 V DC                 |
| 862148 | PI85-230AC-M93G-TS-3011  | one changeover contact 16 A (AgSnO <sub>2</sub> ), coil voltage 230 V AC |
| 862205 | PI85-024DC-M41G-MS-2011  | one changeover contact 16 A (AgNi), coil voltage 24 V DC                 |
| 862212 | PI85-230AC-M93G-MS-3011  | one changeover contact 16 A (AgSnO <sub>2</sub> ), coil voltage 230 V AC |
| 864836 | PI85-024DC-M41G-PS-2011  | one changeover contact 16 A (AgNi), coil voltage 24 V DC                 |
| 864838 | PI85-230AC-M93G-PS-2011  | one changeover contact 16 A (AgNi), coil voltage 230 V AC                |
| 864845 | PI84P-024DC-M41G-PS-2012 | two changeover contacts 8 A (AgNi), coil voltage 24 V DC                 |
| 864847 | PI84P-230AC-M93G-PS-2012 | two changeover contacts 8 A (AgNi), coil voltage 230 V AC                |
| 864848 | PI85P-024DC-M41G-PS-2011 | one changeover contact 16 A (AgNi), coil voltage 24 V DC                 |
| 864850 | PI85P-230AC-M93G-PS-2011 | one changeover contact 16 A (AgNi), coil voltage 230 V AC                |
| 864839 | PIR2-024DC-M41G-PS-2012  | two changeover contacts 12 A (AgNi), coil voltage 24 V DC                |
| 864841 | PIR2-230AC-M93G-PS-2012  | two changeover contacts 12 A (AgNi), coil voltage 230 V AC               |
| 864842 | PIR4-024DC-M41G-PS-2014  | four changeover contacts 6 A (AgNi), coil voltage 24 V DC                |
| 864844 | PIR4-230AC-M93G-PS-2014  | four changeover contacts 6 A (AgNi), coil voltage 230 V AC               |

## Relays for industry

|   | Relay type           |    |                      |    |                      |    |
|---|----------------------|----|----------------------|----|----------------------|----|
|   | PIR2                 |    | PIR3                 |    | PIR4                 |    |
|   | socket for GZM2 grey |    | socket for GZM3 grey |    | socket for GZM4 grey |    |
| Coil voltage  | AC                   | DC | AC                   | DC | AC                   | AC |
| 024 - 24 V  | •                    | •  | •                    | •  | •                    | •  |
| 230 - 230 V   | •                    |    | •                    |    | •                    |    |
| ... - other voltages: see data tables (pages 38, 39, 40, 41) or product catalog (full edition) <a href="http://www.repol.pl/en/Download/Product-Catalogs">www.repol.pl/en/Download/Product-Catalogs</a> |                      |    |                      |    |                      |    |
| Coil  |                      |    |                      |    |                      |    |
| DC - DC   |                      | •  |                      | •  |                      | •  |
| AC - AC   |                      | •  |                      | •  |                      | •  |
| Signalling / protecting module  |                      |    |                      |    |                      |    |
| 00LD - LED + diode  |                      | •  |                      | •  |                      | •  |
| 00LV - LED + varistor   |                      | •  |                      | •  |                      | •  |

### EXAMPLE ORDERING CODES

| Index  | Code            | Description  |
|--------|-----------------|--|
| 854795 | PIR2-024DC-00LD | two changeover contacts 12 A (AgNi), coil voltage 24 V DC    |
| 854800 | PIR2-230AC-00LV | two changeover contacts 12 A (AgNi), coil voltage 230 V AC   |
| 854788 | PIR3-024DC-00LD | three changeover contacts 10 A (AgNi), coil voltage 24 V DC  |
| 854793 | PIR3-230AC-00LV | three changeover contacts 10 A (AgNi), coil voltage 230 V AC |
| 854770 | PIR4-024DC-00LD | four changeover contacts 6 A (AgNi), coil voltage 24 V DC    |
| 854786 | PIR4-230AC-00LV | four changeover contacts 6 A (AgNi), coil voltage 24 V AC    |

|   | Relay type |       |        |       |          |    |       |                       |    |          |               |       |
|---|------------|-------|--------|-------|----------|----|-------|-----------------------|----|----------|---------------|-------|
|   | PI6-1P     |       | PI6-1T |       | PIR6W-1P |    |       | PIR6W-1PS, PIR6WB-1PS |    |          | SIR6W, SIR6WB |       |
|   | DC         | AC/DC | DC     | AC/DC | AC       | DC | AC/DC | AC                    | DC | AC/DC    | DC            | AC/DC |
| 24 V - 24 V   | •          | •     |        | •     |          | •  | •     |                       | •  | •        | •             | •     |
| 5...32V - 5...32 V  |            |       | •      |       |          |    |       |                       |    |          |               |       |
| 230V - 230 V  |            | •     |        | •     | •        |    | •     | •                     |    | •        |               |       |
| 220-240V - 220...240 V  |            |       |        |       |          |    |       |                       |    |          |               | •     |
| ... - other voltages: see data tables (pages 41, 42, 43) or product catalog (full edition) <a href="http://www.repol.pl/en/Download/Product-Catalogs">www.repol.pl/en/Download/Product-Catalogs</a> |            |       |        |       |          |    |       |                       |    |          |               |       |
| Input   |            |       |        |       |          |    |       |                       |    |          |               |       |
| DC - DC   |            | •     |        | •     |          | •  |       |                       | •  |          |               | •     |
| AC - AC   |            |       |        |       |          | •  |       |                       | •  |          |               |       |
| AC/DC - AC/DC   |            | •     |        | •     |          | •  |       |                       | •  |          |               | •     |
| Output  |            |       |        |       |          |    |       |                       |    |          |               |       |
| R - contacts AgSnO <sub>2</sub>   |            | •     |        |       |          | •  |       |                       | •  |          |               | •     |
| R01 - contacts AgSnO <sub>2</sub> /Au hard gold plating   |            | •     |        |       |          | •  |       |                       | •  |          |               | •     |
| T - triac   |            |       |        | •     |          |    |       |                       | •  |          |               | •     |
| C - transistor 1 A  |            |       |        |       |          |    |       |                       | •  |          |               | •     |
| O - transistor 2 A  |            |       |        |       |          |    |       |                       | •  |          |               | •     |
| For control lines 300 m   |            |       |        |       |          |    |       |                       |    |          |               |       |
| 230V...-10 - 230 V with filter  |            | •     |        |       | •        |    | •     | • PIR6WB              |    | • PIR6WB |               |       |

### EXAMPLE ORDERING CODES

| Index  | Code                   | Description   |
|--------|------------------------|---|
| 858550 | PI6-1P-24VDC           | one changeover contact 6 A (AgSnO <sub>2</sub> ), input voltage 24 V DC                   |
| 858559 | PI6-1P-230VAC/DC       | one changeover contact 6 A (AgSnO <sub>2</sub> ), input voltage 230 V AC/DC               |
| 854603 | PI6-1T-5...32VDC       | one solid state output 1,2 A (triac), input voltage 5...32 V DC                           |
| 858604 | PIR6W-1P-24VDC         | one changeover contact 6 A (AgSnO <sub>2</sub> ), input voltage 24 V DC                   |
| 856070 | PIR6W-1P-230VAC/DC-10  | one changeover contact 6 A (AgSnO <sub>2</sub> ), input voltage 230 V AC/DC (with filter) |
| 858620 | PIR6W-1PS-24VDC-R      | one changeover contact 6 A (AgSnO <sub>2</sub> ), input voltage 24 V DC                   |
| 857186 | PIR6W-1PS-24VDC-T      | one solid state output 1 A (triac), input voltage 24 V DC                                 |
| 857485 | PIR6WB-1PS-24VDC-R     | one changeover contact 6 A (AgSnO <sub>2</sub> ), input voltage 24 V DC                   |
| 857522 | PIR6WB-1PS-230VAC/DC-C | one solid state output 1 A (transistor), input voltage 230 V AC/DC                        |
| 863758 | SIR6W-24VDC-R          | one changeover contact 6 A (AgSnO <sub>2</sub> ), input voltage 24 V DC                   |
| 863764 | SIR6W-24VAC/DC-O       | one solid state output 2 A (transistor), input voltage 24 V AC/DC                         |
| 863775 | SIR6WB-24VDC-R         | one changeover contact 6 A (AgSnO <sub>2</sub> ), input voltage 24 V DC                   |
| 863772 | SIR6WB-220-240VAC/DC-R | one changeover contact 6 A (AgSnO <sub>2</sub> ), input voltage 220...240 V AC/DC         |

# Relays for photovoltaic systems



- $I_n$  currents of contacts:  
16 ... 80 A.
- Methods of mounting:  
THT, direct on 35 mm rail  
mount, in plug-in sockets,  
direct on panel mounting  
- depending on the type  
of relay.

|             |    |
|-------------|----|
| RS35 .....  | 47 |
| RS50 .....  | 47 |
| RS80 .....  | 47 |
| RG25 .....  | 47 |
| RUC .....   | 48 |
| RUC-M ..... | 48 |

## Applications:





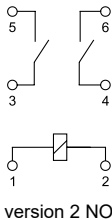

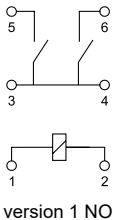
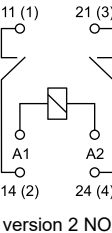
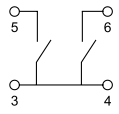
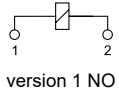
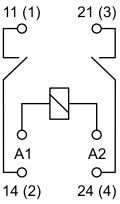

- there are two major applications of electromagnetic relays in solar systems, i.e. at the DC side they connect/disconnect the DC voltage generated by photovoltaic cells; at the AC side they connect/disconnect the entire system to/from power network,
- delivery of power to a public network is subject to special requirements as for the relays applied - the major ones are: contact clearance of min. 1,5 mm and resistance of the contact clearance to surge voltage of 2 500 V; all the requirements are set out by the Standard DIN VDE 0126-1-1,
- for safety reasons solar systems must be equipped with an automatic system to disconnect the generator section from the AC network; the protection system is usually built in the DC/AC inverter and double-break disconnected - thus, these must be relays of the 2 NO contact configuration (each contact disconnects one line - one the phase line and the other the neutral line); two contacts connected in series are required for each line - thus, the circuit separation is performed by two two-contact electromagnetic relays,
- the RUC-M relays are designed for connecting high DC currents.





# Relays for photovoltaic systems

## industrial relays of small dimensions

| Type                                     | RS35  | RS50  | RS80  | RG25  |  |
|--|---|---|---|---|--|
|  | 35 A<br>           | 50 A<br>           | 80 A, gap $\geq 4,1$ mm<br> |                    |  |
| <b>Contact data</b>                      |   |   |   |   |  |
| Number and type of contacts              | 2 NO  | 1 NO, 2 NO  | 1 NO  | 2 NO  |  |
| Contact material                         | AgSnO <sub>2</sub>  | AgSnO <sub>2</sub>  | AgSnO <sub>2</sub>  | AgSnO <sub>2</sub>  |  |
| Rated / max. AC switching voltage        | 250 V / 440 V   | 250 V / 440 V   | 250 V / 440 V   | 400 V / 440 V   |  |
| Rated load (capacity)                    | AC1<br>DC1<br>DC13<br>DC13  | 35 A / 250 V AC<br>35 A / 24 V DC   | 50 A / 250 V AC<br>50 A / 24 V DC   | 80 A / 250 V AC<br>80 A / 24 V DC   | 25 A / 400 V AC<br>25 A / 24 V DC ④<br>0,3 A / 120 V (R300)<br>0,15 A / 250 V (R300) |
| <b>Coil data</b>                         |   |   |   |   |  |
| Rated voltage AC                         |   |   |   | 12, <b>24</b> , 110, <b>230</b> , 400 V   |  |
| DC                                       | 5, 9, 12, 18, 24, 110 V   | 5, 9, 12, 18, 24, 110 V   | 12, 24 V  | 12, <b>24</b> , 48, 110, 220 V  |  |
| <b>Insulation</b>                        |   |   |   |   |  |
| Insulation rated voltage                 | 250 V AC  | 250 V AC  | 250 V AC  | 400 V AC  |  |
| Dielectric strength                      |   |   |   |   |  |
| • coil - contacts                        | 5 000 V AC ④  | 5 000 V AC ④  | 5 000 V AC ④  | 5 000 V AC ④  |  |
| • contact clearance                      | 2 500 V AC ⑤  | 2 500 V AC ⑤  | 2 500 V AC ⑤  | 1 500 V AC ⑤  |  |
| <b>General data</b>                      |   |   |   |   |  |
| Dimensions mm                            | 40 x 25 x 49,2  | 40 x 25 x 49,2  | 40 x 25 x 49,2  | 26 x 53,7 x 75,5  |  |
| Connection diagrams (pin side view)      | <br>version 2 NO | <br>version 1 NO | <br>version 1 NO         | <br>version 2 NO |  |
| Recognitions, certifications, directives |                  |                  |                           |                  |  |




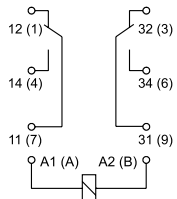
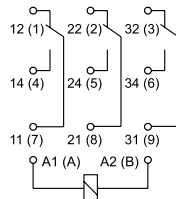
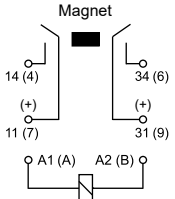
④ Type of insulation: reinforced  
⑤ Diagram: www.repol.com.pl

④ Type of clearance: micro-disconnection  
⑤ Type of clearance: full-disconnection



# Relays for photovoltaic systems

## industrial relays of small dimensions

| Type                                     | RUC   | RUC   | RUC-M  |
|--|---|---|--|
|  | faston 4,8 x 0,5<br> | faston 6,3 x 0,8<br> | for DC loads<br> |
| <b>Contact data</b>                      |   |   |  |
| Number and type of contacts              | 2 CO, 3 CO,<br>2 NO, 3 NO   | 2 CO, 3 CO,<br>2 NO, 3 NO   | 1 NO, 2 NO   |
| Contact material                         | AgNi, AgSnO <sub>2</sub>  | AgNi, AgSnO <sub>2</sub>  | AgNi, AgSnO <sub>2</sub>   |
| Rated / max. AC switching voltage        | 250 V / 440 V   | 250 V / 440 V   | 250 V / 440 V  |
| Rated load                               | AC1<br>AC1<br>DC1<br>DC1  | 16 A / 250 V AC<br><br>16 A / 24 V DC ⑤   | 16 A / 250 V AC<br><br>1 NO: 12 A / 220 V DC ⑤<br>2 NO: 4,5 A / 220 V DC ④                         |
| <b>Coil data</b>                         |   |   |  |
| Rated voltage                            | AC<br>DC  | 6, 12, 24, 115, 120,<br>220, 230, 240, 400 V<br>6, 12, 24, 42, 48, 60,<br>110, 120, 220 V             | 12, 24, 48, 115, 120,<br>230, 240 V<br>12, 24, 48,<br>110, 220 V                                   |
|  |   | 12, 24, 48, 110, 220 V<br>(reinforced)  | 12, 24, 48, 110, 220 V<br>(reinforced)   |
| <b>Insulation</b>                        |   |   |  |
| Insulation rated voltage                 | 400 V AC  | 400 V AC  | 400 V AC   |
| Dielectric strength                      |   |   |  |
| • coil - contacts                        | 2 500 V AC ⑥  | 2 500 V AC ⑥  | 2 500 V AC ⑥   |
| • contact clearance                      | 1 500 ⑥, 2 500 ⑥ V AC   | 1 500 ⑥, 2 500 ⑥ V AC   | 1 NO: 4 000 V AC ⑥   |
| <b>General data</b>                      |   |   |  |
| Dimensions                               | mm  | 36,1 x 38,6 x 52,65 ⑤   | 46,8 x 38,6 x 66,1 ⑤   |
| Connection diagrams                      |   |   |  |
| (pin side view)                          |                    |                    |                |
|  | version 2 CO  | version 3 CO  | version 2 NO ②   |
| Plug-in sockets for relays               | GUC11S-V0 ⑦   |   | GUC11S-V0 ⑦  |
| Recognitions, certifications, directives | CE cRoHS ENEC RoHS  | CE cRoHS ENEC RoHS  | CE cRoHS ENEC RoHS   |

① Type of insulation: basic  
② Diagram: www.repol.com.pl

③ Type of clearance: micro-disconnection  
④ Type of clearance: full-disconnection

① RUC, RUC-M: relays available in versions: for plug-in sockets; with adaptors for direct mounting on 35 mm rail mount; with cover with flange for mounting on panel; for PCB mounting  
② RUC-M: relays with permanent magnet whose magnetic field blows the electric arc between the contacts; for high DC loads  
③ RUC-M contact 1 NO: DC1 - 16 A / 24 V DC, 14 A / 110 V DC  
④ RUC-M contacts 2 NO: DC1 - 16 A / 24 V DC, 10,5 A / 110 V DC  
⑤ RUC, RUC-M: for plug-in sockets ⑥ RUC: with horizontal adaptor (H) ⑦ GUC11S-V0: insulation rated voltage 250 V AC

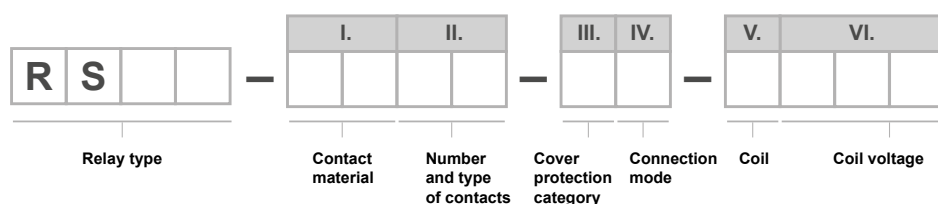
### Plug-in sockets for relays

**GUC11S-V0 (862593)**

For RUC, RUC-M



# Relays for photovoltaic systems



|   | Relay type |      |      |
|---|------------|------|------|
|   | RS35       | RS50 | RS80 |
| <b>I. Contact material</b>  |            |      |      |
| 30 - AgSnO <sub>2</sub>   | •          | •    | •    |
| <b>II. Number and type of contacts</b>  |            |      |      |
| 21 - 1 NO gap 1,8 mm  |            | •    |      |
| 21 - 1 NO gap 4,1 mm  |            |      | •    |
| 22 - 2 NO gap 2,2 mm  | •          |      |      |
| 22 - 2 NO gap 1,8 mm  |            | •    |      |
| <b>III. Cover protection category</b>   |            |      |      |
| 2 - IP 40   | •          | •    | •    |
| <b>IV. Connection mode</b>  |            |      |      |
| 5 - for PCB   | •          | •    | •    |
| <b>V. Coil</b>  |            |      |      |
| 1 - DC  | •          | •    | •    |
| <b>VI. Coil voltage</b>   | DC         | DC   | DC   |
| 012 - 12 V  | •          | •    | •    |
| 024 - 24 V  | •          | •    | •    |
| 110 - 110 V   | •          | •    | •    |
| ... - other voltages: see data tables (page 47)<br>or product catalog (full edition) <a href="http://www.relpol.pl/en/Download/Product-Catalogs">www.relpol.pl/en/Download/Product-Catalogs</a> |            |      |      |

## ORDERING CODES

| Index  | Code              | Description  |
|--------|-------------------|--|
| 859166 | RS35-3022-25-1005 | two normally open contacts 35 A (AgSnO <sub>2</sub> ), coil voltage 5 V DC   |
| 859167 | RS35-3022-25-1009 | two normally open contacts 35 A (AgSnO <sub>2</sub> ), coil voltage 9 V DC   |
| 859168 | RS35-3022-25-1012 | two normally open contacts 35 A (AgSnO <sub>2</sub> ), coil voltage 12 V DC  |
| 859169 | RS35-3022-25-1018 | two normally open contacts 35 A (AgSnO <sub>2</sub> ), coil voltage 18 V DC  |
| 859170 | RS35-3022-25-1024 | two normally open contacts 35 A (AgSnO <sub>2</sub> ), coil voltage 24 V DC  |
| 859438 | RS35-3022-25-1110 | two normally open contacts 35 A (AgSnO <sub>2</sub> ), coil voltage 110 V DC |
| 859171 | RS50-3022-25-1005 | two normally open contacts 50 A (AgSnO <sub>2</sub> ), coil voltage 5 V DC   |
| 859172 | RS50-3022-25-1009 | two normally open contacts 50 A (AgSnO <sub>2</sub> ), coil voltage 9 V DC   |
| 859173 | RS50-3022-25-1012 | two normally open contacts 50 A (AgSnO <sub>2</sub> ), coil voltage 12 V DC  |
| 859174 | RS50-3022-25-1018 | two normally open contacts 50 A (AgSnO <sub>2</sub> ), coil voltage 18 V DC  |
| 859175 | RS50-3022-25-1024 | two normally open contacts 50 A (AgSnO <sub>2</sub> ), coil voltage 24 V DC  |
| 859439 | RS50-3022-25-1110 | two normally open contacts 50 A (AgSnO <sub>2</sub> ), coil voltage 110 V DC |
| 864637 | RS80-3021-25-1012 | one normally open contact 80 A (AgSnO <sub>2</sub> ), coil voltage 12 V DC   |
| 864632 | RS80-3021-25-1024 | one normally open contact 80 A (AgSnO <sub>2</sub> ), coil voltage 24 V DC   |

## EXAMPLE ORDERING CODES

| Index  | Code               | Description   |
|--------|--------------------|---|
| 862724 | RG25-3022-28-1024  | two normally open contacts 25 A (AgSnO <sub>2</sub> ), coil voltage 24 V DC             |
| 862722 | RG25-3022-28-3230  | two normally open contacts 25 A (AgSnO <sub>2</sub> ), coil voltage 230 V AC            |
| 862681 | RUC-3012-26-1024   | two changeover contacts 16 A (AgSnO <sub>2</sub> ), coil voltage 24 V DC                |
| 864130 | RUC-3023-26-5230   | three normally open contacts 16 A (AgSnO <sub>2</sub> ), coil voltage 230 V AC          |
| 862684 | RUC-M-3051-26-W024 | one normally open contact 16 A (AgSnO <sub>2</sub> ), coil voltage 24 V DC (reinforced) |
| 864171 | RUC-M-3052-26-5230 | two normally open contacts 16 A (AgSnO <sub>2</sub> ), coil voltage 230 V AC            |

**CODING TABLE:** RG25, RUC, RUC-M - see page 37.

# Relays for railroad industry

- $I_n$  currents of contacts: 6 ... 16 A.
- Available relays:
  - miniature: RM84, RM85,
  - industrial: R2T/3T/4T, R15T, RUCT/RUCT-M,
  - interface: PI84T/85T, PIR2T/3T/4T, PIR152T/153T, PRUCT/PRUCT-M,
  - time: MT-W...M.
- Compliance with standards: EN 45545-2 (category EL10 ①, requirement R26 ① - flammability class V-0 acc. to EN 60695-11-10); EN 61373 category 1, class B (mechanical shock and vibration resistance); EN 50155; EN 60077-1; EN 61810-1.
- Methods of mounting: in plug-in sockets, on 35 mm rail mount, on panel mounting - depending on the type of relay.

① MT-W...M: category EL5, requirement set R23

|                           |    |
|---------------------------|----|
| RM84 .....                | 51 |
| RM85 .....                | 51 |
| R2T .....                 | 51 |
| R3T .....                 | 51 |
| R4T .....                 | 52 |
| R15T - 2 CO .....         | 52 |
| R15T - 3 CO .....         | 52 |
| RUCT .....                | 52 |
| RUCT-M .....              | 53 |
| PI84T - GZT80-VO .....    | 53 |
| PI85T - GZT80-VO .....    | 53 |
| PIR2T - GZT2-VO .....     | 53 |
| PIR3T - GZT3-VO .....     | 53 |
| PIR4T - GZT4-VO .....     | 54 |
| PIR152T - PZ8-VO .....    | 54 |
| PIR153T - PZ11-VO .....   | 54 |
| PRUCT - GUC11S-VO .....   | 54 |
| PRUCT-M - GUC11S-VO ..... | 55 |
| MT-W...M .....            | 55 |



## Applications:





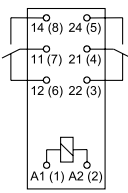
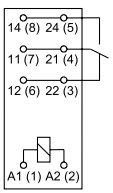
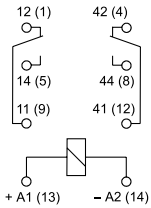
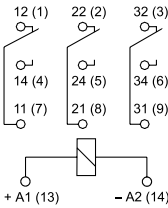




- control switchboard,
- operator's panel and cabin systems,
- supply, monitoring, wagon lighting circuits,
- air conditioning, ventilation, heating,
- doors control,
- passenger information devices,
- mobile device chargers.

 **relpol**® S.A.

# Relays for railroad industry

## miniature relays

## industrial relays

| Type                                     | RM84   | RM85   | R2T  | R3T  |
|--|--|--|--|--|
|  |   |   |    |   |
| <b>Contact data</b>                      |  |  |  |  |
| Number and type of contacts              | 2 CO, 2 NO   | 1 CO, 1 NO   | 2 CO   | 3 CO   |
| Contact material                         | AgSnO <sub>2</sub>   | AgSnO <sub>2</sub>   | AgNi   | AgNi   |
| Rated / max. AC switching voltage        | 250 V / 400 V  | 250 V / 400 V  | 250 V / 440 V  | 250 V / 440 V  |
| Rated load (capacity)                    | AC1 8 A / 250 V AC<br>AC15 3 A / 120 V (B300)<br>AC15 1,5 A / 240 V (B300)<br>DC1 8 A / 24 V DC ④<br>DC13 0,22 A / 120 V (R300)<br>DC13 0,1 A / 250 V (R300) | 16 A / 250 V AC<br>3 A / 120 V (B300)<br>1,5 A / 240 V (B300)<br>16 A / 24 V DC ④<br>0,22 A / 120 V (R300)<br>0,1 A / 250 V (R300) | 12 A / 250 V AC<br>3 A / 120 V (B300)<br>1,5 A / 240 V (B300)<br>12 A / 24 V DC ④<br>0,22 A / 120 V (R300)<br>0,1 A / 250 V (R300) | 10 A / 250 V AC<br>3 A / 120 V (B300)<br>1,5 A / 240 V (B300)<br>10 A / 24 V DC ④<br>0,22 A / 120 V (R300)<br>0,1 A / 250 V (R300) |
| Motor load                               | 0,37 kW ⑦  | 0,5 kW ⑦   | 0,37 kW ⑦  | 0,37 kW ⑦  |
| <b>Coil data</b>                         |  |  |  |  |
| Rated voltage DC                         | 24, 110 V ①  | 24, 110 V ①  | 24, 110 V ①  | 24, 110 V ①  |
| <b>Insulation</b>                        |  |  |  |  |
| Insulation rated voltage                 | 400 V AC   | 400 V AC   | 250 V AC   | 250 V AC   |
| Dielectric strength                      |  |  |  |  |
| • coil - contacts                        | 5 000 V AC ②   | 5 000 V AC ②   | 2 500 V AC ③   | 2 500 V AC ③   |
| • contact clearance                      | 1 000 V AC ⑤   | 1 000 V AC ⑤   | 1 500 V AC ⑤   | 1 500 V AC ⑤   |
| <b>General data</b>                      |  |  |  |  |
| Dimensions mm                            | 29 x 12,7 x 15,7   | 29 x 12,7 x 15,7   | 27,4 x 21 x 35,5   | 27,4 x 21 x 35,5   |
| Connection diagrams (pin side view)      | <br>version 2 CO  | <br>version 1 CO                                | <br>version 2 CO                               | <br>version 3 CO                              |
| Plug-in sockets for relays               | GZT80-V0   | GZT80-V0   | GZT2-V0  | GZT3-V0  |
| Recognitions, certifications, directives |   |   |    |   |

② Type of insulation: basic

④ Type of insulation: reinforced

⑤ Type of clearance: micro-disconnection

⑦ AC3 according to IEC 60947-4-1, 1-phase motor

⑧ Diagram: [www.relpol.com.pl](http://www.relpol.com.pl)





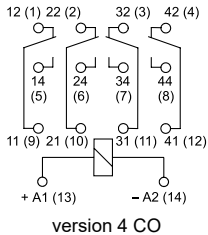
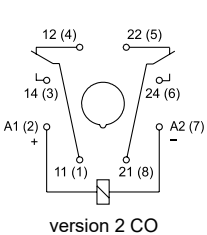
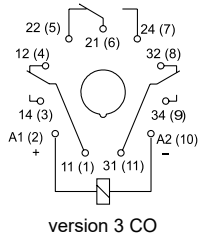
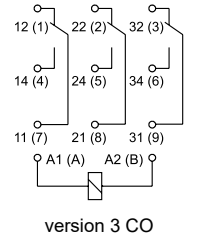




① For other voltages, please contact Relpol S.A.

② Certification IK for interface set (industrial relay with socket)



# Relays for railroad industry

## industrial relays

| Type  | R4T  | R15T - 2 CO  | R15T - 3 CO  | RUCT   |
|---|--|--|--|--|
|   |   |   |   | <b>faston 4,8 x 0,5</b><br> |
| <b>Contact data</b>   |  |  |  |  |
| Number and type of contacts   | 4 CO   | 2 CO   | 3 CO   | 3 CO, 3 NO   |
| Contact material  | AgNi   | AgNi   | AgNi   | AgNi   |
| Rated / max. AC switching voltage   | 250 V / 250 V  | 250 V / 440 V  | 250 V / 440 V  | 230 V / 250 V  |
| Rated load (capacity)   | AC1 7 A / 230 V AC (VDE)<br>AC1 6 A / 250 V AC<br>AC15 1,5 A / 120 V (B300)<br>AC15 0,75 A / 240 V (B300)<br>DC1 6 A / 24 V DC ⑤<br>DC1<br>DC13 0,22 A / 120 V (R300)<br>DC13 0,1 A / 250 V (R300) | 10 A / 250 V AC<br>3 A / 120 V (B300)<br>1,5 A / 240 V (B300)<br>10 A / 24 V DC ⑤<br>0,22 A / 120 V (R300)<br>0,1 A / 250 V (R300) | 10 A / 250 V AC<br>3 A / 120 V (B300)<br>1,5 A / 240 V (B300)<br>10 A / 24 V DC ⑤<br>0,22 A / 120 V (R300)<br>0,1 A / 250 V (R300) | 16 A / 250 V AC<br>16 A / 24 V DC ⑤  |
| Motor load  | 0,125 kW ⑦   | 0,37 kW ⑦  | 0,37 kW ⑦  |  |
| <b>Coil data</b>  |  |  |  |  |
| Rated voltage DC  | 24, 110 V ①  | 24, 110 V ①  | 24, 110 V ①  | 24, 110 V ①  |
| <b>Insulation</b>   |  |  |  |  |
| Insulation rated voltage  | 250 V AC   | 250 V AC   | 250 V AC   | 250 V AC   |
| Dielectric strength   |  |  |  |  |
| • coil - contacts   | 2 500 V AC ②   | 2 500 V AC ②   | 2 500 V AC ②   | 2 500 V AC ②   |
| • contact clearance   | 1 500 V AC ③   | 1 500 V AC ③   | 1 500 V AC ③   | 1 500 V AC ③   |
| <b>General data</b>   |  |  |  |  |
| Dimensions mm   | 27,4 x 21 x 35,5   | 35 x 35 x 54,4   | 35 x 35 x 54,4   | 36,1 x 38,6 x 52,65  |
| <b>Connection diagrams</b><br>(industrial: pin side view)<br>(interface: terminals side view) | <br>version 4 CO  | <br>version 2 CO                                | <br>version 3 CO                               | <br>version 3 CO          |
| <b>Operational relays</b><br>Plug-in sockets<br>Indicator                                     | GZT4-V0  | PZ8-V0   | PZ11-V0  | GUC11S-V0  |
| Recognitions, certifications, directives  |   |   |    |                           |

② Type of insulation: basic

① Type of insulation: reinforced

⑦ AC3 according to IEC 60947-4-1, 1-phase motor

⑤ Type of clearance: micro-disconnection






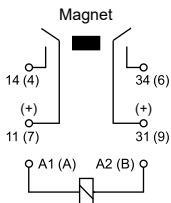
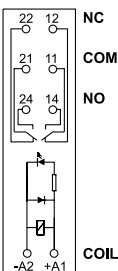
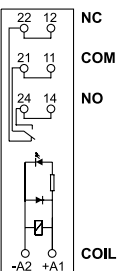
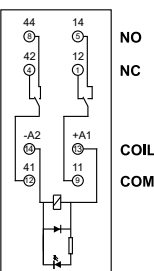
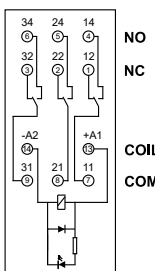





③ Type of clearance: full-disconnection

⑥ Diagram: [www.repol.com.pl](http://www.repol.com.pl)



# Relays for railroad industry

## interface relays - sets

| RUCT-M  | PI84T - GZT80-V0  | PI85T - GZT80-V0  | PIR2T - GZT2-V0  | PIR3T - GZT3-V0   |
|---|---|---|--|---|
| for DC loads  |   |   |  |   |
|                      |                    |                    |                    |                    |
| 1 NO, 2 NO  | 2 CO  | 1 CO  | 2 CO   | 3 CO  |
| AgNi  | AgSnO <sub>2</sub>  | AgSnO <sub>2</sub>  | AgNi   | AgNi  |
| 250 V / 250 V   | 250 V / 300 V   | 250 V / 300 V   | 250 V / 300 V  | 250 V / 300 V   |
| 16 A / 250 V AC   | 8 A / 250 V AC<br>3 A / 120 V (B300)<br>1,5 A / 240 V (B300)<br>8 A / 24 V DC ⑤                     | 16 A ⑥ / 250 V AC<br>3 A / 120 V (B300)<br>1,5 A / 240 V (B300)<br>16 A / 24 V DC ⑤                 | 12 A / 250 V AC<br>3 A / 120 V (B300)<br>1,5 A / 240 V (B300)<br>12 A / 24 V DC ⑤                    | 10 A / 250 V AC<br>3 A / 120 V (B300)<br>1,5 A / 240 V (B300)<br>10 A / 24 V DC ⑤                     |
| 1 NO: 10 A / 220 V DC ④<br>2 NO: 3,8 A / 220 V DC ⑤   | 0,22 A / 120 V (R300)<br>0,1 A / 250 V (R300)   | 0,22 A / 120 V (R300)<br>0,1 A / 250 V (R300)   | 0,22 A / 120 V (R300)<br>0,1 A / 250 V (R300)  | 0,22 A / 120 V (R300)<br>0,1 A / 250 V (R300)   |
|   | 0,37 kW ⑦   | 0,5 kW ⑦  | 0,37 kW ⑦  | 0,37 kW ⑦   |
| 24, 110 V ①   | 24, 110 V ①   | 24, 110 V ①   | 24, 110 V ①  | 24, 110 V ①   |
| 250 V AC  | 250 V AC  | 250 V AC  | 300 V AC   | 300 V AC  |
| 2 500 V AC ③<br>1 NO: 4 000 V AC ③<br>2 NO: 2 000 V AC ③  | 5 000 V AC ③<br>1 000 V AC ③  | 5 000 V AC ③<br>1 000 V AC ③  | 2 500 V AC ③<br>1 500 V AC ③   | 2 500 V AC ③<br>1 500 V AC ③  |
| 36,1 x 38,6 x 52,65 ⑥   | 80 x 15,6 x 61  | 80 x 15,6 x 61  | 76,3 x 27 x 65   | 76,3 x 27 x 65  |
| <br>version 2 NO ⑧ | <br>version 2 CO | <br>version 1 CO | <br>version 2 CO | <br>version 3 CO |
| RUCT-M<br>GUC11S-V0   | RM84<br>GZT80-V0<br>module type M...-V0   | RM85<br>GZT80-V0 ⑥<br>module type M...-V0   | R2T<br>GZT2-V0<br>module type M...-V0  | R3T<br>GZT3-V0<br>module type M...-V0   |
|                    |                  |                  |                  |                  |





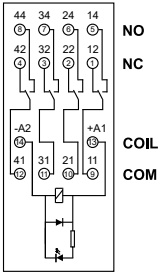
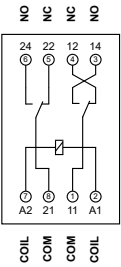
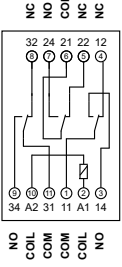
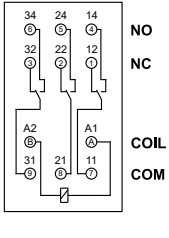
① For other voltages, please contact Relpol S.A. ② Certification IK for interface set (industrial relay with socket)  
 ③ RUCT-M, PRUCT-M: relays with permanent magnet whose magnetic field blows the electric arc between the contacts; for high DC load ④ RUCT-M, PRUCT-M contact 1 NO: DC1 - 16 A / 24 V DC, 13 A / 110 V DC  
 ⑤ RUCT-M, PRUCT-M contacts 2 NO: DC1 - 16 A / 24 V DC, 9 A / 110 V DC ⑥ Loads above 12 A require bridging pairs of terminals: 11 with 21, 12 with 22, 14 with 24 - see www.relpol.com.pl





# Relays for railroad industry

## interface relays - sets

| Type   | PIR4T - GZT4-V0  | PIR152T - PZ8-V0  | PIR153T - PZ11-V0   | PRUCT - GUC11S-V0   |
|--|--|---|---|---|
|  |   |                    |                     |                    |
| <b>Contact data</b>                                  |  |   |   |   |
| Number and type of contacts                          | 4 CO   | 2 CO  | 3 CO  | 3 CO, 3 NO  |
| Contact material                                     | AgNi   | AgNi  | AgNi  | AgNi  |
| Rated / max. AC switching voltage                    | 250 V / 300 V  | 250 V / –   | 250 V / –   | 230 V / 250 V   |
| Rated load (capacity)                                | AC1 7 A / 230 V AC (VDE)<br>AC1 6 A / 250 V AC<br>AC15 1,5 A / 120 V (B300)<br>AC15 0,75 A / 240 V (B300)<br>DC1 6 A / 24 V DC ⑤<br>DC1<br>DC13 0,22 A / 120 V (R300)<br>DC13 0,1 A / 250 V (R300) | 10 A / 250 V AC<br>3 A / 120 V (B300)<br>1,5 A / 240 V (B300)<br>10 A / 24 V DC ⑤                   | 10 A / 250 V AC<br>3 A / 120 V (B300)<br>1,5 A / 240 V (B300)<br>10 A / 24 V DC ⑤                     | 16 A / 250 V AC<br>16 A / 24 V DC ⑤   |
| Motor load   | 0,125 kW ⑦   | 0,37 kW ⑦   | 0,37 kW ⑦   |   |
| <b>Coil data</b>                                     |  |   |   |   |
| Rated voltage DC                                     | 24, 110 V ①  | 24, 110 V ①   | 24, 110 V ①   | 24, 110 V ①   |
| AC/DC  |  |   |   |   |
| <b>Insulation</b>                                    |  |   |   |   |
| Insulation rated voltage                             | 300 V AC   | 250 V AC  | 250 V AC  | 250 V AC  |
| Dielectric strength                                  |  |   |   |   |
| • coil - contacts                                    | 2 500 V AC ⑥   | 2 500 V AC ⑥  | 2 500 V AC ⑥  | 2 500 V AC ⑥  |
| • contact clearance                                  | 1 500 V AC ⑥   | 1 500 V AC ⑥  | 1 500 V AC ⑥  | 1 500 V AC ⑥  |
| <b>General data</b>                                  |  |   |   |   |
| Dimensions mm  | 76,3 x 27 x 65   | 68,2 x 38 x 82  | 68,2 x 38 x 82  | 84,5 x 41,5 x 77,3  |
| Connection diagrams (interface: terminals side view) | <br>version 4 CO  | <br>version 2 CO | <br>version 3 CO | <br>version 3 CO |
| Operational relays                                   | R4T  | R15T - 2 CO   | R15T - 3 CO   | RUCT  |
| Plug-in sockets                                      | GZT4-V0  | PZ8-V0  | PZ11-V0   | GUC11S-V0   |
| Indicator  | module type M...-V0  |   |   |   |
| Recognitions, certifications, directives             | CE ENEC TIK<br>RoHS  | CE ENEC TIK<br>RoHS   | CE ENEC TIK<br>RoHS   | CE TIK<br>RoHS  |

① Type of insulation: basic

② Type of clearance: micro-disconnection

③ Type of clearance: full-disconnection











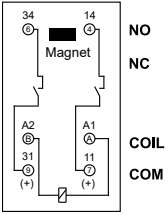

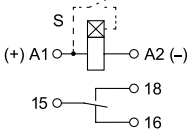






④ AC3 according to IEC 60947-4-1, 1-phase motor

⑤ Diagram: www.repol.com.pl



# Relays for railroad industry

time

| PRUCT-M - GUC11S-V0  | MT-W...M  |
|--|---|
|   | adjustment T1, T2, T3    |
| 1 NO, 2 NO   | 1 CO  |
| AgNi   | AgSnO <sub>2</sub>  |
| 250 V / 250 V  | 300 V   |
| 16 A / 250 V AC  | 10 A / 250 V AC   |
| 1 NO: 10 A / 220 V DC <br>2 NO: 3,8 A / 220 V DC   | 10 A / 24 V DC  |
| <b>24, 110 V</b>    |   |
|  | 12...240 V AC: 50/60 Hz   |
| 250 V AC   | 250 V AC  |
| 2 500 V AC <br>1 NO: 4 000 V AC <br>2 NO: 2 000 V AC  | 2 500 V AC <br>1 000 V AC   |
| 84,5 x 41,5 x 77,3   | 90(98,8) x 17,5 x 65,5  |
| <br>version 2 NO   | <br>version 1 CO    |
| RUCT-M<br>GUC11S-V0  |   |
|  <br>RoHS  |   <br>RoHS |



## Plug-in sockets for relays

### GZT80-VO (862573)

For RM84, RM85



GZM80-0041

GZT80-0035

M...-V0

### GZT2-VO (862557)

For R2T



### GZT3-VO (862551)

For R3T



### GZT4-VO (862554)

For R4T



G4 1052



GZT4-0035



M...-V0

### PZ8-VO (862540)

For R15T - 2 CO



### PZ11-VO (862535)

For R15T - 3 CO



PZ11 0031







### GUC11S-VO (862593)

For RUCT, RUCT-M



MBA



-  For other voltages, please contact Relpol S.A.
-  RUCT-M, PRUCT-M: relays with permanent magnet whose magnetic field blows the electric arc between the contacts; for high DC load
-  RUCT-M, PRUCT-M contact 1 NO: DC1 - 16 A / 24 V DC, 13 A / 110 V DC
-  RUCT-M, PRUCT-M contacts 2 NO: DC1 - 16 A / 24 V DC, 9 A / 110 V DC
-  MT-W...M: time module, descriptions and diagrams of time functions - see pages 69, 75-76.
-  The control terminal S (B1) is activated by connection to A1 terminal via the external control contact S.

## Relays for railroad industry

### ORDERING CODES

| Index  | Code                   | Description   |
|--------|------------------------|---|
| 862345 | R2T-2012-23-1024-V0    | two changeover contacts 12 A, coil voltage 24 V DC                    |
| 862348 | R3T-2013-23-1024-V0    | three changeover contacts 10 A, coil voltage 24 V DC                  |
| 862351 | R4T-2014-23-1024-V0    | four changeover contacts 6 A, coil voltage 24 V DC                    |
| 862324 | R15T-2012-23-W024-V0   | two changeover contacts 10 A, coil voltage 24 V DC (reinforced)       |
| 862327 | R15T-2013-23-W024-V0   | three changeover contacts 10 A, coil voltage 24 V DC (reinforced)     |
| 862263 | RUCT-2013-26-W024-V0   | three changeover contacts 16 A, coil voltage 24 V DC (reinforced)     |
| 862262 | RUCT-2023-26-W110-V0   | three normally open contacts 16 A, coil voltage 110 V DC (reinforced) |
| 862266 | RUCT-M-2051-26-W024-V0 | one normally open contact 16 A, coil voltage 24 V DC (reinforced)     |
| 862271 | RUCT-M-2052-26-W110-V0 | two normally open contacts 16 A, coil voltage 110 V DC (reinforced)   |

**OTHER VOLTAGES:** please contact Relpol S.A. (export@relpol.com.pl)

### ORDERING CODES

| Index  | Code                        | Description  |
|--------|-----------------------------|--|
| 862574 | PI84T-024DC-M41G-TS-3012-V0 | two changeover contacts 8 A, coil voltage 24 V DC                    |
| 862576 | PI85T-024DC-M41G-TS-3011-V0 | one changeover contact 16 A, coil voltage 24 V DC                    |
| 862558 | PIR2T-024DC-M41G-V0         | two changeover contacts 12 A, coil voltage 24 V DC                   |
| 862560 | PIR3T-024DC-M41G-V0         | three changeover contacts 10 A, coil voltage 24 V DC                 |
| 862562 | PIR4T-024DC-M41G-V0         | four changeover contacts 6 A, coil voltage 24 V DC                   |
| 862541 | PIR152T-024DC-V0            | two changeover contacts 10 A, coil voltage 24 V DC (reinforced)      |
| 862543 | PIR153T-024DC-V0            | three changeover contacts 10 A, coil voltage 24 V DC (reinforced)    |
| 862278 | PRUCT-2013-26-W024-V0       | three changeover contacts 16 A, coil voltage 24 V DC (reinforced)    |
| 862275 | PRUCT-2023-26-W024-V0       | three normally open contacts 16 A, coil voltage 24 V DC (reinforced) |
| 862281 | PRUCT-M-2051-26-W024-V0     | one normally open contact 16 A, coil voltage 24 V DC (reinforced)    |
| 862284 | PRUCT-M-2052-26-W024-V0     | two normally open contacts 16 A, coil voltage 24 V DC (reinforced)   |

**OTHER VOLTAGES:** please contact Relpol S.A. (export@relpol.com.pl)

### ORDERING CODES

| Index  | Code               | Description  |
|--------|--------------------|--|
| 860470 | MT-W-17S-11-9240-M | electronic with display, multifunction (25 functions, times T1, T2, T3), one changeover contact 10 A, input voltage 12...240 V AC/DC |

# Programmable relays

- $I_n$  currents of outputs: 0,5 ... 10 A.
- Available versions of NEED relays:
  - with LCD display:
    - 8 inputs / 4 outputs, 16 inputs / 8 outputs,
  - without display:
    - 8 inputs / 4 outputs, 16 inputs / 8 outputs,
  - with relay outputs,
  - with transistor outputs:
    - $I_n = 0,5$  A (version 24 V DC),
  - with supply voltage:
    - 230 V AC, 12 V DC, 24 V DC, 220 V DC.
- NEED-MODBUS: communication modules  
NEED Master / ModBus RTU Slave.
- Methods of mounting:
  - NEED: on 35 mm rail mount or on panel mounting,
  - NEED-MODBUS: on 35 mm rail mount.



|                  |    |
|------------------|----|
| NEED-...-08-4... | 58 |
| NEED-...-16-8... | 58 |
| NEED-MODBUS      | 58 |





## Applications:

- in industrial automation (device and process control),
- in ARC automation
- in BMS automation,
- in production management systems,
- in water systems,
- in air-conditioning, ventilation, heating systems,
- in lighting systems,
- various other applications.

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## Programmable relays


| Type                                     |     | NEED-...-08-4...  | NEED-...-16-8...   |
|--|-----|---|--|
|  |     | 8 inputs / 4 outputs  | 16 inputs / 8 outputs  |
| Outputs                                  |     |    |  |
| Number and type of outputs               |     | 4 NO ② ③  | 8 NO ② ③   |
| Rated load                               | AC1 | 10 A / 250 V AC ②   | 10 A / 250 V AC ②  |
|  | DC1 | 0,5 A / 24 V DC ③   | 0,5 A / 24 V DC ③  |
| Supply                                   |     |   |  |
| Rated voltage                            | AC  | 230 V 50/60 Hz  | 230 V 50/60 Hz   |
|  | DC  | 12, 24, 220 V   | 12, 24, 220 V  |
| Resources                                |     |   |  |
| Switch                                   |     | STOP/RUN mode   |  |
| Programming ①                            |     | LCD display, keyboard, 4 function buttons   |  |
| Indicator                                |     | LED three-colour (relay status), LEDs green (input status), LEDs yellow (output status)   |  |
| Physical resources                       |     | internal potentiometer, RTC clock, connection for programming (secured by stopper), (three-phase network equipment control system ④)  |  |
| Program resources ①                      |     | 32 timers, 8 bidirectional counters, fast bidirectional counter / meter of frequency, 8 clocks, 16 comparators of analog values, 64 markers, 8 text markers, (marker of phase sequence ④) |  |
| System structure                         |     | programmable relay NEED-..., cable NEED-PC-15B or -15C (RS-232 or USB), (external memory card NEED-M-4KB ①), software PC NEED, module NEED-MODBUS   |  |
| Insulation                               |     |   |  |
| Insulation rated voltage                 |     | 300 V AC  | 300 V AC   |
| Dielectric strength                      |     |   |  |
| • inputs - outputs                       |     | 2 000 V AC ④  | 2 000 V AC ④   |
| • contact clearance                      |     | 1 000 V AC ⑤ ②  | 1 000 V AC ⑤ ②   |
| General data                             |     |   |  |
| Dimensions                               | mm  | 90 x 72 x 55  | 90 x 132 x 55  |
| Recognitions, certifications, directives |     | CE ENEC<br>RoHS   | CE ENEC<br>RoHS  |

① Type of insulation: reinforced      ⑤ Type of clearance: micro-disconnection

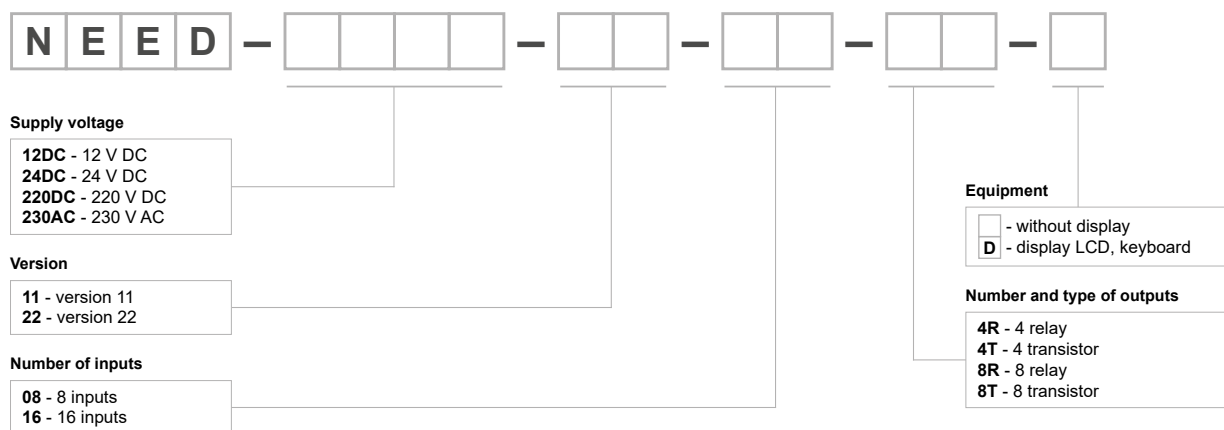
① Only for version with LCD display (NEED-...-22-...-D). For version without display (NEED-...-11-...) - see [www.relpol.com.pl](http://www.relpol.com.pl)

② Versions with unprotected relay outputs      ③ Version 24 V DC with protected transistor outputs      ④ Only for version NEED-230AC-...-16-8R-



| NEED-MODBUS  | Communication modules   |
|--|---|
|   | Appropriation: data reading from NEED relays and availability of the data values with the ModBus RTU protocol; transmission of control commands to NEED; modification of the real time RTC clock setting; operation from COM1 side as NEED Master and from COM2 side as a device of ModBus RTU Slave type |
| Supply: 7...26 V AC 50/60 Hz, 7...35 V DC / Dimensions: 108 x 53 x 58 mm   |   |
| Data transmission: ModBus RTU Slave (9600 bits/s, 1 bit start, 8 bits of data, 1 bit stop, without parity control), RS-232 (EIA/TIA-574, max. 15 m), RS-485 (EIA/TIA-485, max. 1200 m) |   |

## Programmable relays



### ORDERING CODES

| Index  | Code                  | Description  |
|--------|-----------------------|--|
| 857735 | NEED-12DC-11-08-4R    | 4 relay outputs 10 A, 8 inputs - supply voltage 12 V DC                          |
| 857365 | NEED-12DC-11-16-8R    | 8 relay outputs 10 A, 16 inputs - supply voltage 12 V DC                         |
| 859358 | NEED-12DC-22-08-4R-D  | 4 relay outputs 10 A, 8 inputs - supply voltage 12 V DC, display LCD, keyboard   |
| 859361 | NEED-12DC-22-16-8R-D  | 8 relay outputs 10 A, 16 inputs - supply voltage 12 V DC, display LCD, keyboard  |
| 857736 | NEED-24DC-11-08-4R    | 4 relay outputs 10 A, 8 inputs - supply voltage 24 V DC                          |
| 857366 | NEED-24DC-11-16-8R    | 8 relay outputs 10 A, 16 inputs - supply voltage 24 V DC                         |
| 859359 | NEED-24DC-22-08-4R-D  | 4 relay outputs 10 A, 8 inputs - supply voltage 24 V DC, display LCD, keyboard   |
| 859362 | NEED-24DC-22-16-8R-D  | 8 relay outputs 10 A, 16 inputs - supply voltage 24 V DC, display LCD, keyboard  |
| 858158 | NEED-220DC-11-08-4R   | 4 relay outputs, 8 inputs - supply voltage 220 V DC                              |
| 858159 | NEED-220DC-11-16-8R   | 8 relay outputs 10 A, 16 inputs - supply voltage 220 V DC                        |
| 857737 | NEED-230AC-11-08-4R   | 4 relay outputs 10 A, 8 inputs - supply voltage 230 V AC                         |
| 857367 | NEED-230AC-11-16-8R   | 8 relay outputs 10 A, 16 inputs - supply voltage 230 V AC                        |
| 859360 | NEED-230AC-22-08-4R-D | 4 relay outputs 10 A, 8 inputs - supply voltage 230 V AC, display LCD, keyboard  |
| 859363 | NEED-230AC-22-16-8R-D | 8 relay outputs 10 A, 16 inputs - supply voltage 230 V AC, display LCD, keyboard |

### ORDERING CODES: accessories

| Index   | Code        | Description   |
|---------|-------------|---|
| 2614884 | NEED-Modbus | communication module NEED Master / ModBus RTU Slave                               |
| 857734  | NEED-PC-15B | cable for programming and diagnostics (computer PC, port RS-232), for version 11  |
| 858743  | NEED-PC-15C | cable for programming and diagnostics (computer PC, port USB), for version 11, 22 |
| 857733  | NEED-M-1KB  | external memory card (1 kB), for version 11                                       |
| 859472  | NEED-M-4KB  | external memory card (4 kB), for version 22                                       |



# Installation relays

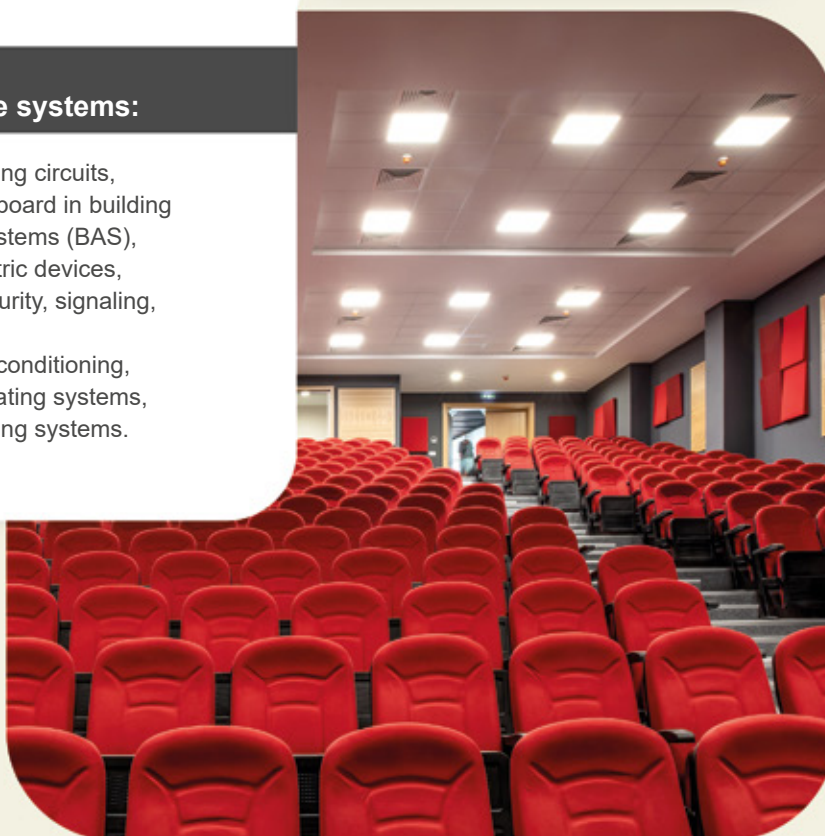


|             |    |
|-------------|----|
| RPI-P...    | 61 |
| RPI-Z...    | 61 |
| RPI-1Z-D12  | 61 |
| RPI-1Z-U24A | 61 |
| RPI-P-UNI   | 62 |
| RPI-Z-UNI   | 62 |

- $I_n$  currents of outputs: 8 A or 16 A.
- Available versions:
  - in modular covers: RPI series.
- Method of mounting:  
on 35 mm rail mount.





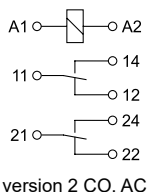
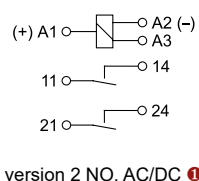
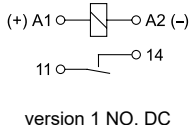
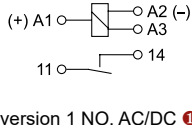




## Applications in low voltage systems:

- control of lighting circuits,
- electric switchboard in building automation systems (BAS),
- control of electric devices,
- devices of security, signaling, alarm system,
- devices of air-conditioning, ventilation, heating systems,
- industrial heating systems.





# Installation relays

| Type                                     |       | RPI-P-...   | RPI-Z-...  | RPI-1ZI-D12  | RPI-1ZI-U24A   |
|--|-------|---|--|--|--|
| Output circuit                           |       |                        |                             |                       |                             |
| Number and type of contacts              |       | 1 CO, 2 CO  | 1 NO, 2 NO   | 1 NO   | 1 NO   |
| Contact material                         |       | AgSnO <sub>2</sub>  | AgSnO <sub>2</sub>   | AgSnO <sub>2</sub>   | AgSnO <sub>2</sub>   |
| Max. voltage AC                          |       | 300 V   | 300 V  | 300 V  | 300 V  |
| Rated load                               | AC1   | 1 CO: 16 A / 250 V AC   | 1 NO: 16 A / 250 V AC  | 16 A / 250 V AC  | 16 A / 250 V AC  |
|  | AC1   | 2 CO: 8 A / 250 V AC  | 2 NO: 8 A / 250 V AC   |  |  |
|  | DC1   | 1 CO: 16 A / 24 V DC  | 1 NO: 16 A / 24 V DC   | 16 A / 24 V DC   | 16 A / 24 V DC   |
|  | DC1   | 2 CO: 8 A / 24 V DC   | 2 NO: 8 A / 24 V DC  |  |  |
| Input circuit                            |       |   |  |  |  |
| Rated voltage                            | AC    | 24, 115, 230 V 50/60 Hz   | 230 V ① 50 Hz  |  | 230 V ① 50 Hz  |
|  | DC    | 12, 24, 48 V  |  | 12 V   |  |
|  | AC/DC |   | 12, 24 ①, 48, 115 V<br>AC: 50 Hz   |  | 24 V ① AC: 50 Hz   |
| Insulation                               |       |   |  |  |  |
| Insulation rated voltage                 |       | 250 V AC  | 250 V AC   | 250 V AC   | 250 V AC   |
| Dielectric strength                      |       |   |  |  |  |
| • input - output                         |       | 4 000 V AC ⑥  | 4 000 V AC ⑥   | 4 000 V AC ⑥   | 4 000 V AC ⑥   |
| • contact clearance                      |       | 1 000 V AC ⑥  | 1 000 V AC ⑥   | 1 000 V AC ⑥   | 1 000 V AC ⑥   |
| Overvoltage category                     |       | III   | III  | III  | III  |
| General data                             |       |   |  |  |  |
| Dimensions mm                            |       | 90(98,8) x 17,5 x 64,6  | 90(98,8) x 17,5 x 64,6   | 90(98,8) x 17,5 x 64,6   | 90(98,8) x 17,5 x 64,6   |
| Mechanical life                          |       | 10 <sup>7</sup> (cycles)  | 10 <sup>7</sup> (cycles)   | 10 <sup>7</sup> (cycles)   | 10 <sup>7</sup> (cycles)   |
| Protection category                      |       | IP 20 (EN 60529)  | IP 20 (EN 60529)   | IP 20 (EN 60529)   | IP 20 (EN 60529)   |
| Connection diagrams                      |       | <br>version 2 CO, AC | <br>version 2 NO, AC/DC ① | <br>version 1 NO, DC | <br>version 1 NO, AC/DC ① |
| Indicator                                |       | LED green   | LED green  | LED green  | LED green  |
| Recognitions, certifications, directives |       |                      |                           |                      |                           |



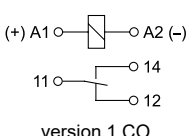
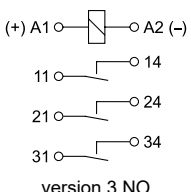


⑥ Type of insulation: basic

⑥ Type of clearance: micro-disconnection

① Terminal A3 occurs only in versions RPI-Z.-U24A. Selection of relays supply voltage: 24 V AC/DC - wires connection to the terminals A1-A2; 230 V AC - to the terminals A1-A3.



## Installation relays

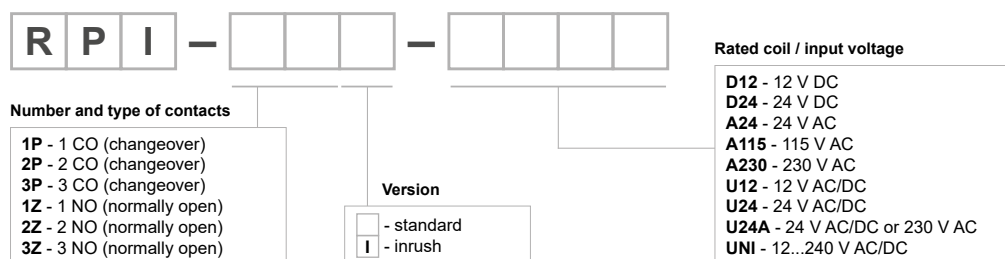
| Type                                     |       | RPI-P-UNI   | RPI-Z-UNI   |
|--|-------|---|---|
|  |       |    |    |
| <b>Output circuit</b>                    |       |   |   |
| Number and type of contacts              |       | 1 CO, 2 CO, 3 CO  | 1 NO, 2 NO, 3 NO  |
| Contact material                         |       | AgSnO <sub>2</sub>  | AgSnO <sub>2</sub>  |
| Max. voltage                             | AC    | 300 V   | 300 V   |
| Rated load                               | AC1   | 1 CO: 16 A / 250 V AC   | 1 NO: 16 A / 250 V AC   |
|  | AC1   | 2 CO: 8 A / 250 V AC  | 2 NO: 8 A / 250 V AC  |
|  | DC1   | 1 CO: 16 A / 24 V DC  | 1 NO: 16 A / 24 V DC  |
|  | DC1   | 2 CO, 3 CO: 8 A / 24 V DC   | 2 NO, 3 NO: 8 A / 24 V DC   |
| <b>Input circuit</b>                     |       |   |   |
| Rated voltage                            | AC/DC | 12...240 V AC: 50/60 Hz   | 12...240 V AC: 50/60 Hz   |
| <b>Insulation</b>                        |       |   |   |
| Insulation rated voltage                 |       | 250 V AC  | 250 V AC  |
| Dielectric strength                      |       |   |   |
| • input - output                         |       | 4 000 V AC Ⓢ  | 4 000 V AC Ⓢ  |
| • contact clearance                      |       | 1 000 V AC Ⓢ  | 1 000 V AC Ⓢ  |
| Overvoltage category                     |       | III   | III   |
| <b>General data</b>                      |       |   |   |
| Dimensions                               | mm    | 90(98,8) x 17,5 x 64,6  | 90(98,8) x 17,5 x 64,6  |
| Mechanical life                          |       | > 10 <sup>7</sup> (cycles)  | > 10 <sup>7</sup> (cycles)  |
| Protection category                      |       | IP 20 (EN 60529)  | IP 20 (EN 60529)  |
| <b>Connection diagrams</b>               |       |   |   |
|  |       |  |  |
|  |       | version 1 CO  | version 3 NO  |
| Indicator                                |       | LED green   | LED green   |
| Recognitions, certifications, directives |       |  |  |

Ⓢ Type of insulation: basic

Ⓢ Type of clearance: micro-disconnection



# Installation relays



## ORDERING CODES

| Index  | Code         | Description  |
|--------|--------------|--|
| 863355 | RPI-1P-D12   | one changeover contact 16 A, coil voltage 12 V DC  |
| 863356 | RPI-1P-D24   | one changeover contact 16 A, coil voltage 24 V DC  |
| 863358 | RPI-1P-A24   | one changeover contact 16 A, coil voltage 24 V AC  |
| 863360 | RPI-1P-A230  | one changeover contact 16 A, coil voltage 230 V AC   |
| 863361 | RPI-2P-D12   | two changeover contacts 8 A, coil voltage 12 V DC  |
| 863362 | RPI-2P-D24   | two changeover contacts 8 A, coil voltage 24 V DC  |
| 863364 | RPI-2P-A24   | two changeover contacts 8 A, coil voltage 24 V AC  |
| 863365 | RPI-2P-A115  | two changeover contacts 8 A, coil voltage 115 V AC   |
| 863366 | RPI-2P-A230  | two changeover contacts 8 A, coil voltage 24 V AC  |
| 863367 | RPI-1Z-U12   | one normally open contact 16 A, coil voltage 12 V AC/DC  |
| 863368 | RPI-1Z-U24   | one normally open contact 16 A, coil voltage 24 V AC/DC  |
| 863371 | RPI-1Z-U24A  | one normally open contact 16 A, coil voltage 24 V AC/DC (terminals A1-A2) or 230 V AC (terminals A1-A3)  |
| 863372 | RPI-2Z-U12   | two normally open contacts 8 A, coil voltage 12 V AC/DC  |
| 863373 | RPI-2Z-U24   | two normally open contacts 8 A, coil voltage 24 V AC/DC  |
| 863376 | RPI-2Z-U24A  | two normally open contacts 8 A, coil voltage 24 V AC/DC (terminals A1-A2) or 230 V AC (terminals A1-A3)  |
| 864920 | RPI-1ZI-D12  | inrush version (resistance to inrush current 120 A), one normally open contact 16 A, coil voltage 12 V DC  |
| 863377 | RPI-1ZI-U24A | inrush version (resistance to inrush current 120 A), one normally open contact 16 A, coil voltage 24 V AC/DC (terminals A1-A2) or 230 V AC (terminals A1-A3) |
| 863378 | RPI-1P-UNI   | one changeover contact 16 A, input voltage 12...240 V AC/DC  |
| 863379 | RPI-2P-UNI   | two changeover contacts 8 A, input voltage 12...240 V AC/DC  |
| 863514 | RPI-3P-UNI   | three changeover contacts 8 A, input voltage 12...240 V AC/DC  |
| 863380 | RPI-1Z-UNI   | one changeover contact 16 A, input voltage 12...240 V AC/DC  |
| 863381 | RPI-2Z-UNI   | two changeover contacts 8 A, input voltage 12...240 V AC/DC  |
| 863515 | RPI-3Z-UNI   | three changeover contacts 8 A, input voltage 12...240 V AC/DC  |

# Bistable - impulse relays

- $I_n$  currents of outputs: 8 A or 16 A.
- Available versions:
  - in modular covers: RPB series.
- Method of mounting:  
on 35 mm rail mount.

## Applications in low voltage systems:

- control of lighting circuits,
- electric switchboard in building automation systems (BAS),
- control of electric devices,
- control of devices of air-conditioning, ventilation, heating systems,
- control of devices of security, signaling, alarm system.
































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|               |    |
|---------------|----|
| RPB-1P-...    | 65 |
| RPB-1PM-...   | 65 |
| RPB-2Z-...    | 65 |
| RPB-1ZI-...   | 65 |
| RPB-1PM-UNI   | 66 |
| RPB-1ZMI-UNI  | 66 |
| RPB-2PSM-UNI  | 66 |
| RPB-2ZSMI-UNI | 66 |





## Bistable - impulse relays

| Type   | RPB-1P-...  | RPB-1PM-...   | RPB-2Z-...  | RPB-1ZI-...   |
|--|---|---|---|---|
|  |    |    |    | <br>120 A / 20 ms  |
| Output circuit   |   |   |   |   |
| Number and type of contacts  | 1 CO  | 1 CO  | 2 NO  | 1 NO  |
| Contact material   | AgSnO <sub>2</sub>  | AgSnO <sub>2</sub>  | AgSnO <sub>2</sub>  | AgSnO <sub>2</sub>  |
| Max. voltage AC  | 300 V   | 300 V   | 300 V   | 300 V   |
| Rated load AC1<br>DC1  | 16 A / 250 V AC<br>16 A / 24 V DC   | 16 A / 250 V AC<br>16 A / 24 V DC   | 8 A / 250 V AC<br>8 A / 24 V DC   | 16 A / 250 V AC<br>16 A / 24 V DC   |
| Input circuit  |   |   |   |   |
| Rated voltage AC   | 230 V 50/60 Hz  | 230 V 50/60 Hz  | 230 V 50/60 Hz  | 230 V 50/60 Hz  |
| AC/DC  | 24 V AC: 50/60 Hz   | 24 V AC: 50/60 Hz   | 24 V AC: 50/60 Hz   | 24 V AC: 50/60 Hz   |
| Control contact S  | yes    | yes    | yes    | yes    |
| Function data  |   |   |   |   |
| Functions number   | single-functions  | single-functions with memory  | single-functions  | single-functions  |
| Functions  | RESET   | NORMAL  | RESET   | RESET   |
| Indicator  | LED green and yellow  | LED green and yellow  | LED green and yellow  | LED green and yellow  |
| Insulation   |   |   |   |   |
| Insulation rated voltage   | 250 V AC  | 250 V AC  | 250 V AC  | 250 V AC  |
| Dielectric strength  |   |   |   |   |
| • input - output   | 4 000 V AC   | 4 000 V AC   | 4 000 V AC   | 4 000 V AC   |
| • contact clearance  | 1 000 V AC   | 1 000 V AC   | 1 000 V AC   | 1 000 V AC   |
| Overvoltage category   | III   | III   | III   | III   |
| General data   |   |   |   |   |
| Dimensions mm  | 90(98,8) x 17,5 x 64,6  | 90(98,8) x 17,5 x 64,6  | 90(98,8) x 17,5 x 64,6  | 90(98,8) x 17,5 x 64,6  |
| Mechanical life  | 10 <sup>7</sup> (cycles)  | 10 <sup>7</sup> (cycles)  | 10 <sup>7</sup> (cycles)  | 10 <sup>7</sup> (cycles)  |
| Protection category  | IP 20 (EN 60529)  | IP 20 (EN 60529)  | IP 20 (EN 60529)  | IP 20 (EN 60529)  |
| Recognitions, certifications, directives   |   <br>RoHS |   <br>RoHS |   <br>RoHS |   <br>RoHS |









 Type of insulation: basic

 Type of clearance: micro-disconnection

 Connection diagrams, descriptions and diagrams of functions - see [www.relpol.com.pl](http://www.relpol.com.pl)  Control contact S provides control of switching ON/OFF of receivers (lighting or other devices) from a few different points, with the use of connected in parallel: illuminated momentary bell switches or control buttons.



## Bistable - impulse relays

| Type   | RPB-1PM-UNI   | RPB-1ZMI-UNI  | RPB-2PSM-UNI  | RPB-2ZSMI-UNI   |
|--|---|---|---|---|
|  |    |    |    |    |
| Output circuit   |   | 80 A / 20 ms  |   | 80 A / 20 ms  |
| Number and type of contacts                                    | 1 CO  | 1 NO  | 2 x 1 CO  | 2 x 1 NO  |
| Contact material   | AgSnO <sub>2</sub>  | AgSnO <sub>2</sub>  | AgSnO <sub>2</sub>  | AgSnO <sub>2</sub>  |
| Max. voltage AC  | 300 V   | 300 V   | 300 V   | 300 V   |
| Rated load AC1<br>DC1  | 16 A / 250 V AC<br>16 A / 24 V DC   | 16 A / 250 V AC<br>16 A / 24 V DC   | 16 A / 250 V AC<br>16 A / 24 V DC   | 16 A / 250 V AC<br>16 A / 24 V DC   |
| Input circuit  |   |   |   |   |
| Rated voltage AC/DC  | 12...240 V AC: 50/60 Hz   | 12...240 V AC: 50/60 Hz   | 12...240 V AC: 50/60 Hz   | 12...240 V AC: 50/60 Hz   |
| Control contact S  | yes ⑤   | yes ⑤   | yes ⑤   | yes ⑤   |
| Function data  |   |   |   |   |
| Functions number   | multifunctions with memory  | multifunctions with memory  | multifunctions sequential with memory   | multifunctions sequential with memory   |
| Functions ①  | NORMAL, RESET   | NORMAL, RESET   | BOTH, RESET BOTH, RESET SEQ, SEQ  | BOTH, RESET BOTH, RESET SEQ, SEQ  |
| Indicator  | LED green and yellow  | LED green and yellow  | LED green and yellow  | LED green and yellow  |
| Insulation   |   |   |   |   |
| Insulation rated voltage                                       | 250 V AC  | 250 V AC  | 250 V AC  | 250 V AC  |
| Dielectric strength<br>• input - output<br>• contact clearance | 4 000 V AC ⑥<br>1 000 V AC ⑥  | 4 000 V AC ⑥<br>1 000 V AC ⑥  | 4 000 V AC ⑥<br>1 000 V AC ⑥  | 4 000 V AC ⑥<br>1 000 V AC ⑥  |
| Overvoltage category   | III   | III   | III   | III   |
| General data   |   |   |   |   |
| Dimensions mm  | 90(98,8) x 17,5 x 64,6  | 90(98,8) x 17,5 x 64,6  | 90(98,8) x 17,5 x 64,6  | 90(98,8) x 17,5 x 64,6  |
| Mechanical life  | 10 <sup>7</sup> (cycles)  | 10 <sup>7</sup> (cycles)  | 10 <sup>7</sup> (cycles)  | 10 <sup>7</sup> (cycles)  |
| Protection category  | IP 20 (EN 60529)  | IP 20 (EN 60529)  | IP 20 (EN 60529)  | IP 20 (EN 60529)  |
| Recognitions, certifications, directives                       |  |  |  |  |

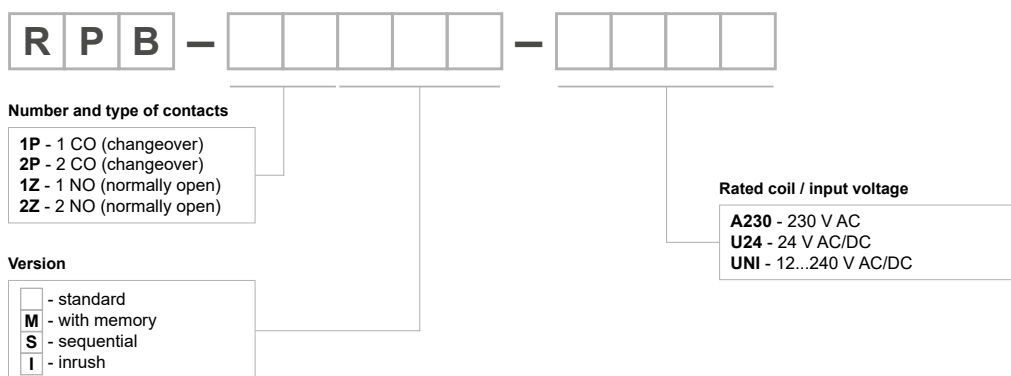
⑥ Type of insulation: basic

⑥ Type of clearance: micro-disconnection

① Connection diagrams, descriptions and diagrams of functions - see [www.relpol.com.pl](http://www.relpol.com.pl) ⑤ Control contact S provides control of switching ON/OFF of receivers (lighting or other devices) from a few different points, with the use of connected in parallel: momentary bell switches or control buttons; the relays cannot operate with illuminated switches.



## Bistable - impulse relays



### ORDERING CODES

| Index  | Code          | Description  |
|--------|---------------|--|
| 864384 | RPB-1P-A230   | single-function, cooperating with illuminated momentary bell switches or control buttons, one changeover contact 16 A, input voltage 230 V AC  |
| 864383 | RPB-1P-U24    | single-function, cooperating with illuminated momentary bell switches or control buttons, one changeover contact 16 A, input voltage 24 V AC/DC  |
| 864390 | RPB-1PM-A230  | single-function (with memory), cooperating with illuminated momentary bell switches or control buttons, one changeover contact 16 A, input voltage 230 V AC  |
| 864389 | RPB-1PM-U24   | single-function (with memory), cooperating with illuminated momentary bell switches or control buttons, one changeover contact 16 A, input voltage 24 V AC/DC  |
| 864386 | RPB-2Z-A230   | single-function, cooperating with illuminated momentary bell switches or control buttons, two normally open contacts 8 A, input voltage 230 V AC   |
| 864385 | RPB-2Z-U24    | single-function, cooperating with illuminated momentary bell switches or control buttons, two normally open contacts 8 A, input voltage 24 V AC/DC   |
| 864388 | RPB-1ZI-A230  | single-function, inrush version (resistance to inrush current 120 A), cooperating with illuminated momentary bell switches or control buttons, one normally open contact 16 A, input voltage 230 V AC                    |
| 864387 | RPB-1ZI-U24   | single-function, inrush version (resistance to inrush current 120 A), cooperating with illuminated momentary bell switches or control buttons, one normally open contact 16 A, input voltage 24 V AC/DC                  |
| 864391 | RPB-1PM-UNI   | multifunction (with memory), cooperating with momentary bell switches or control buttons, one changeover contact 16 A, input voltage 12...240 V AC/DC  |
| 864393 | RPB-1ZMI-UNI  | multifunction (with memory), inrush version (resistance to inrush current 80 A), cooperating with momentary bell switches or control buttons, one normally open contact 16 A, input voltage 12...240 V AC/DC             |
| 864392 | RPB-2PSM-UNI  | multifunction (sequential with memory), cooperating with momentary bell switches or control buttons, two changeover contacts 16 A, input voltage 12...240 V AC/DC  |
| 864394 | RPB-2ZSMI-UNI | multifunction (sequential with memory), inrush version (resistance to inrush current 80 A), cooperating with momentary bell switches or control buttons, two normally open contacts 16 A, input voltage 12...240 V AC/DC |



# Time relays

|                    |    |
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| RPC-.MA-... .....  | 69 |
| RPC-.MB-... .....  | 69 |
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| T-R4 - GZM4 ..... | 74 |
| PIR15...T .....   | 74 |
| COM3 .....        | 74 |

- $I_n$  currents of outputs: 6 ... 16 A.
- Available versions:
  - in modular covers:
    - MT-W...M (with LED display), RPC series,
  - in industrial covers:
    - TR4N series, T-R4, PIR15...T.
- Design features:
  - multifunctions,
  - single-functions,
  - with settings of T interval,
  - with independent settings of T1 and T2 intervals,
  - with independent settings of T1, T2 and T3 intervals (MT-W...M),
  - contacts / outputs: 1 CO, 2 CO, 3 CO, 4 CO
    - depending on the type of relay,
  - supply: universal AC/DC; specified voltage
    - depending on the type of relay.
- Methods of mounting: on 35 mm rail mount, on panel mounting, in plug-in sockets
  - depending on the type of relay.

## Applications in low voltage systems:

- in industrial automation,
- in BMS automation,
- in air-conditioning, ventilation, heating systems,
- in protection, signalling, alarm systems,
- in lighting systems,
- various other applications.



## Time relays

| Type   | MT-W...M   | RPC-MA...  | RPC-MB...  | RPC-2A-UNI   |
|--|--|--|--|--|
|  | adjustment T1, T2, T3  |  |  |  |
| Output circuit   |  |  |  |  |
| Number and type of contacts                                    | 1 CO   | 1 CO, 2 CO   | 1 CO, 2 CO   | 2 CO   |
| Contact material   | AgSnO <sub>2</sub>   | AgSnO <sub>2</sub>   | AgSnO <sub>2</sub>   | AgSnO <sub>2</sub>   |
| Max. voltage AC  | 300 V  | 300 V  | 300 V  | 300 V  |
| Rated load AC1<br>DC1  | 10 A / 250 V AC<br>10 A / 24 V DC  | 1 CO: 16 A / 250 V AC, 2 CO: 8 A / 250 V AC<br>1 CO: 16 A / 24 V DC, 2 CO: 8 A / 24 V DC | 1 CO: 16 A / 250 V AC, 2 CO: 8 A / 250 V AC<br>1 CO: 16 A / 24 V DC, 2 CO: 8 A / 24 V DC | 8 A / 250 V AC<br>8 A / 24 V DC  |
| Input circuit  |  |  |  |  |
| Rated voltage AC   |  | 230 V 50/60 Hz   | 230 V 50/60 Hz   |  |
| AC/DC  | 12...240 V AC: 50/60 Hz  | 12...240 V AC: 50/60 Hz  | 12...240 V AC: 50/60 Hz  | 12...240 V AC: 50/60 Hz  |
| Control contact S  | yes  | yes  | yes  | no   |
| Time module  |  |  |  |  |
| Functions number   | multifunctions   | multifunctions   | multifunctions   | multifunctions   |
| Functions  | Es, E, E(S), E(r), R, Wu, Wu(S), Wu(r), Ws, Wa, B, Wi, ER, EWs, EWa, EWu, WsWa, EWf, Wt, Pi, Pi(S), Pp, Pp(S), Est, Esp, ON, OFF | E, Wu, Bp, Bi, R, Ws, Wa, Esa, B, T  | E, Wu, Bp, Bi, Ra, Wst, Wi, Esf, Esp, Est  | E, A, nWa, nWu, nWuWa, nWs   |
| Time ranges  | 0,1 s ... 99 h 59 min.<br>59,9 s   | OFF; ON; 1 s;<br>10 s; 1 min.; 10 min.;<br>1 h; 10 h; 1 d; 10 d                          | OFF; ON; 1 s;<br>10 s; 1 min.; 10 min.;<br>1 h; 10 h; 1 d; 10 d                          | 1 s; 10 s; 20 s; 30 s;<br>1 min.; 1,5 min.; 2 min.;<br>3 min.; 5 min.; 10 min. |
| Indicator  | LED green and yellow   | LED green and yellow   | LED green and yellow   | LED green and yellow   |
| Insulation   |  |  |  |  |
| Insulation rated voltage                                       | 250 V AC   | 250 V AC   | 250 V AC   | 250 V AC   |
| Dielectric strength<br>• input - output<br>• contact clearance | 2 500 V AC<br>1 000 V AC   | 4 000 V AC<br>1 000 V AC   | 4 000 V AC<br>1 000 V AC   | 4 000 V AC<br>1 000 V AC   |
| Overvoltage category   | II   | III  | III  | III  |
| General data   |  |  |  |  |
| Dimensions mm  | 90(98,8) x 17,5 x 65,5   | 90(98,8) x 17,5 x 64,6   | 90(98,8) x 17,5 x 64,6   | 90(98,8) x 17,5 x 64,6   |
| Mechanical life  | > 3 x 10 <sup>7</sup> (cycles)   | > 3 x 10 <sup>7</sup> (cycles)   | > 3 x 10 <sup>7</sup> (cycles)   | > 3 x 10 <sup>7</sup> (cycles)   |
| Protection category  | IP 20 (EN 60529)   | IP 20 (EN 60529)   | IP 20 (EN 60529)   | IP 20 (EN 60529)   |
| Connection diagrams  | <br>version 1 CO   | <br>version 1 CO, AC/DC  | <br>version 1 CO, AC/DC  | <br>version 2 CO   |
| Recognitions, certifications, directives                       |  |  |  |  |

Type of insulation: basic





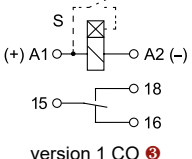
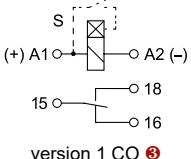
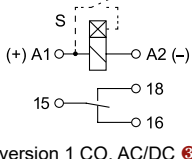
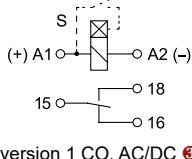

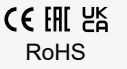


Type of clearance: micro-disconnection

Descriptions and diagrams of time functions - see pages 75-76. Two digit LED display, programming with two buttons only.

The control terminal S (B1) is activated by connection to A1 terminal via the external control contact S.



## Time relays


| Type                                     | RPC-1MC-UNI   | RPC-.MD-UNI   | RPC-1ER...  | RPC-1EA...   |
|--|---|---|---|--|
|  |                      |                      | adjustment T1, T2<br>      | adjustment T1, T2<br>       |
| Output circuit                           |   |   |   |  |
| Number and type of contacts              | 1 CO  | 1 CO, 3 CO  | 1 CO  | 1 CO   |
| Contact material                         | AgSnO <sub>2</sub>  | AgSnO <sub>2</sub>  | AgSnO <sub>2</sub>  | AgSnO <sub>2</sub>   |
| Max. voltage AC                          | 300 V   | 300 V   | 300 V   | 300 V  |
| Rated load AC1                           | 16 A / 250 V AC   | 1 CO: 16 A / 250 V AC   | 16 A / 250 V AC   | 16 A / 250 V AC  |
| Rated load AC1                           |   | 3 CO: 8 A / 250 V AC  |   |  |
| Rated load DC1                           | 16 A / 24 V DC  | 1 CO: 16 A / 24 V DC  | 16 A / 24 V DC  | 16 A / 24 V DC   |
| Rated load DC1                           |   | 3 CO: 8 A / 24 V DC   |   |  |
| Input circuit                            |   |   |   |  |
| Rated voltage AC                         |   |   | 230 V 50/60 Hz  | 230 V 50/60 Hz   |
| Rated voltage AC/DC                      | 12...240 V AC: 50/60 Hz   | 12...240 V AC: 50/60 Hz   | 12...240 V AC: 50/60 Hz   | 12...240 V AC: 50/60 Hz  |
| Control contact S                        | yes ⑥   | yes ⑥   | yes ⑥   | yes ⑥  |
| Time module                              |   |   |   |  |
| Functions number                         | multifunctions  | multifunctions  | single-functions  | single-functions   |
| Functions ①                              | E, E(S), Wu, Wu(S), Bp, Bp(S), Bi, Bi(S), R, Ws, Wa, Esa(R), E(R), Wu(R)                              | E, Wu, Bp, Bi, R, Ws, Wa, Esa, B, T   | ER  | EWa  |
| Time ranges                              | OFF; ON; 1 s; 10 s; 1 min.; 10 min.; 1 h; 10 h; 1 d; 10 d   | OFF; ON; 1 s; 10 s; 1 min.; 10 min.; 1 h; 10 h; 1 d; 10 d   | OFF; ON; 1 s; 10 s; 1 min.; 10 min.; 1 h; 10 h; 1 d; 10 d   | OFF; ON; 1 s; 10 s; 1 min.; 10 min.; 1 h; 10 h; 1 d; 10 d  |
| Indicator                                | LED green and yellow  | LED green and yellow  | LED green and yellow  | LED green and yellow   |
| Insulation                               |   |   |   |  |
| Insulation rated voltage                 | 250 V AC  | 250 V AC  | 250 V AC  | 250 V AC   |
| Dielectric strength • input - output     | 4 000 V AC ⑥  | 4 000 V AC ⑥  | 4 000 V AC ⑥  | 4 000 V AC ⑥   |
| Dielectric strength • contact clearance  | 1 000 V AC ⑥  | 1 000 V AC ⑥  | 1 000 V AC ⑥  | 1 000 V AC ⑥   |
| Overvoltage category                     | III   | III   | III   | III  |
| General data                             |   |   |   |  |
| Dimensions mm                            | 90(98,8) x 17,5 x 64,6  | 90(98,8) x 17,5 x 64,6  | 90(98,8) x 17,5 x 64,6  | 90(98,8) x 17,5 x 64,6   |
| Mechanical life                          | > 3 x 10 <sup>7</sup> (cycles)  | > 3 x 10 <sup>7</sup> (cycles)  | > 3 x 10 <sup>7</sup> (cycles)  | > 3 x 10 <sup>7</sup> (cycles)   |
| Protection category                      | IP 20 (EN 60529)  | IP 20 (EN 60529)  | IP 20 (EN 60529)  | IP 20 (EN 60529)   |
| Connection diagrams                      | <br>version 1 CO ⑥ | <br>version 1 CO ⑥ | <br>version 1 CO, AC/DC ⑥ | <br>version 1 CO, AC/DC ⑥ |
| Recognitions, certifications, directives |                    |                    |                          |                           |

⑥ Type of insulation: basic

⑥ Type of clearance: micro-disconnection

















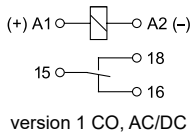
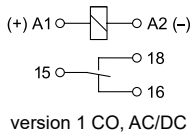
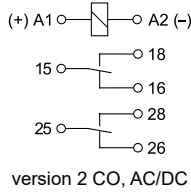
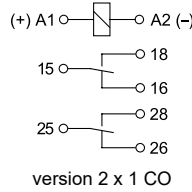




# Time relays


| RPC-1ES...   | RPC-1EU...   | RPC-1IP...   | RPC-1SA...  | RPC-1WT...   |
|--|--|--|---|--|
| adjustment T1, T2  | adjustment T1, T2  | adjustment T1, T2  | adjustment T1, T2   | adjustment T1, T2  |
|                             |                             |                             |                            |                             |
| 1 CO   | 1 CO   | 1 CO   | 1 CO  | 1 CO   |
| AgSnO <sub>2</sub>   | AgSnO <sub>2</sub>   | AgSnO <sub>2</sub>   | AgSnO <sub>2</sub>  | AgSnO <sub>2</sub>   |
| 300 V  | 300 V  | 300 V  | 300 V   | 300 V  |
| 16 A / 250 V AC  | 16 A / 250 V AC  | 16 A / 250 V AC  | 16 A / 250 V AC   | 16 A / 250 V AC  |
| 16 A / 24 V DC   | 16 A / 24 V DC   | 16 A / 24 V DC   | 16 A / 24 V DC  | 16 A / 24 V DC   |
| 230 V 50/60 Hz   | 230 V 50/60 Hz   | 230 V 50/60 Hz   | 230 V 50/60 Hz  | 230 V 50/60 Hz   |
| 12...240 V AC: 50/60 Hz  | 12...240 V AC: 50/60 Hz  | 12...240 V AC: 50/60 Hz  | 12...240 V AC: 50/60 Hz   | 12...240 V AC: 50/60 Hz  |
| yes ③  | yes ③  | yes ③  | yes ③   | yes ③  |
| single-functions   | single-functions   | single-functions   | single-functions  | single-functions   |
| EWs  | EWu + NWu ④  | li + Ip ④  | WsWa  | Wt   |
| OFF; ON; 1 s;<br>10 s; 1 min.; 10 min.;<br>1 h; 10 h; 1 d; 10 d  | OFF; ON; 1 s;<br>10 s; 1 min.; 10 min.;<br>1 h; 10 h; 1 d; 10 d  | OFF; ON; 1 s;<br>10 s; 1 min.; 10 min.;<br>1 h; 10 h; 1 d; 10 d  | OFF; ON; 1 s;<br>10 s; 1 min.; 10 min.;<br>1 h; 10 h; 1 d; 10 d   | OFF; ON; 1 s;<br>10 s; 1 min.; 10 min.;<br>1 h; 10 h; 1 d; 10 d  |
| LED green and yellow   | LED green and yellow   | LED green and yellow   | LED green and yellow  | LED green and yellow   |
| 250 V AC   | 250 V AC   | 250 V AC   | 250 V AC  | 250 V AC   |
| 4 000 V AC ⑤<br>1 000 V AC ⑥   | 4 000 V AC ⑤<br>1 000 V AC ⑥   | 4 000 V AC ⑤<br>1 000 V AC ⑥   | 4 000 V AC ⑤<br>1 000 V AC ⑥  | 4 000 V AC ⑤<br>1 000 V AC ⑥   |
| III  | III  | III  | III   | III  |
| 90(98,8) x 17,5 x 64,6   | 90(98,8) x 17,5 x 64,6   | 90(98,8) x 17,5 x 64,6   | 90(98,8) x 17,5 x 64,6  | 90(98,8) x 17,5 x 64,6   |
| > 3 x 10 <sup>7</sup> (cycles)   | > 3 x 10 <sup>7</sup> (cycles)   | > 3 x 10 <sup>7</sup> (cycles)   | > 3 x 10 <sup>7</sup> (cycles)  | > 3 x 10 <sup>7</sup> (cycles)   |
| IP 20 (EN 60529)   | IP 20 (EN 60529)   | IP 20 (EN 60529)   | IP 20 (EN 60529)  | IP 20 (EN 60529)   |
| <br>version 1 CO, AC/DC ③ | <br>version 1 CO, AC/DC ③ | <br>version 1 CO, AC/DC ③ | <br>version 1 CO, AC/DC ③ | <br>version 1 CO, AC/DC ③ |
| CE EAC UK<br>RoHS  | CE EAC UK<br>RoHS  | CE EAC UK<br>RoHS  | CE EAC UK<br>RoHS   | CE EAC UK<br>RoHS  |


① Descriptions and diagrams of time functions - see pages 75-76. ③ The control terminal S (B1) is activated by connection to A1 terminal via the external control contact S. ④ Start by function: EWu, Ip - terminals A1-S are not connected / bridged; start by function: NWu, li - terminals A1-S are connected / bridged.



## Time relays

| Type  | RPC-.E-...   | RPC-.WU-...  | RPC-.BP-...  | RPC-2SD-UNI  |
|---|--|--|--|--|
|   |               |               |             | adjustment T1, T2<br>   |
| Output circuit  |  |  |  |  |
| Number and type of contacts   | 1 CO, 2 CO   | 1 CO, 2 CO   | 1 CO, 2 CO   | 2 x 1 CO   |
| Contact material  | AgSnO <sub>2</sub>   | AgSnO <sub>2</sub>   | AgSnO <sub>2</sub>   | AgSnO <sub>2</sub>   |
| Max. voltage AC   | 300 V  | 300 V  | 300 V  | 300 V  |
| Rated load  | AC1<br>DC1   | AC1<br>DC1   | AC1<br>DC1   |  |
|   | 1 CO: 16 A / 250 V AC<br>2 CO: 8 A / 250 V AC<br>1 CO: 16 A / 24 V DC<br>2 CO: 8 A / 24 V DC   | 1 CO: 16 A / 250 V AC<br>2 CO: 8 A / 250 V AC<br>1 CO: 16 A / 24 V DC<br>2 CO: 8 A / 24 V DC   | 1 CO: 16 A / 250 V AC<br>2 CO: 8 A / 250 V AC<br>1 CO: 16 A / 24 V DC<br>2 CO: 8 A / 24 V DC   | 8 A / 250 V AC<br>8 A / 24 V DC  |
| Input circuit   |  |  |  |  |
| Rated voltage AC  | 230 V 50/60 Hz   | 230 V 50/60 Hz   | 230 V 50/60 Hz   | 230 V 50/60 Hz   |
| AC/DC   | 12...240 V AC: 50/60 Hz  | 12...240 V AC: 50/60 Hz  | 12...240 V AC: 50/60 Hz  | 12...240 V AC: 50/60 Hz  |
| Control contact S   | no   | no   | no   | no   |
| Time module   |  |  |  |  |
| Functions number  | single-functions   | single-functions   | single-functions   | Star-Delta   |
| Functions  | E  | Wu   | Bp   | SD   |
| Time ranges   | OFF; ON; 1 s;<br>10 s; 1 min.; 10 min.;<br>1 h; 10 h; 1 d; 10 d                                | OFF; ON; 1 s;<br>10 s; 1 min.; 10 min.;<br>1 h; 10 h; 1 d; 10 d                                | OFF; ON; 1 s;<br>10 s; 1 min.; 10 min.;<br>1 h; 10 h; 1 d; 10 d                                | 1 s; 10 s; 30 s; 1 min.;<br>1,5 min.; 3 min.; 5 min.;<br>10 min.; 30 min.; 1 h  |
| Indicator   | LED green and yellow   | LED green and yellow   | LED green and yellow   | LED green and yellow   |
| Insulation  |  |  |  |  |
| Insulation rated voltage  | 250 V AC   | 250 V AC   | 250 V AC   | 250 V AC   |
| Dielectric strength   |  |  |  |  |
| • input - output  | 4 000 V AC  | 4 000 V AC  | 4 000 V AC  | 4 000 V AC    |
| • contact clearance   | 1 000 V AC  | 1 000 V AC  | 1 000 V AC  | 1 000 V AC    |
| Overvoltage category  | III  | III  | III  | III  |
| General data  |  |  |  |  |
| Dimensions mm   | 90(98,8) x 17,5 x 64,6   | 90(98,8) x 17,5 x 64,6   | 90(98,8) x 17,5 x 64,6   | 90(98,8) x 17,5 x 64,6   |
| Mechanical life   | > 3 x 10 <sup>7</sup> (cycles)   | > 3 x 10 <sup>7</sup> (cycles)   | > 3 x 10 <sup>7</sup> (cycles)   | > 3 x 10 <sup>7</sup> (cycles)   |
| Protection category   | IP 20 (EN 60529)   | IP 20 (EN 60529)   | IP 20 (EN 60529)   | IP 20 (EN 60529)   |
| Connection diagrams   |             |             |            |   |
| Recognitions, certifications, directives  |             |             |           |   |

 Type of insulation: basic

 Type of clearance: micro-disconnection



## Time relays

| RPC-1AS-A230  | TR4N 1 CO   | TR4N 2 CO   | TR4N 4 CO  |
|---|---|---|--|
| 120 A, 20 ms<br>     |                          |                          |                          |
| 1 NO  | 1 CO  | 2 CO  | 4 CO   |
| AgSnO <sub>2</sub>  | AgNi  | AgNi  | AgNi   |
| 300 V   | 300 V   | 300 V   | 250 V  |
| 16 A / 250 V AC   | 16 A / 250 V AC<br>16 A / 24 V DC   | 8 A / 250 V AC<br>8 A / 24 V DC   | 6 A / 250 V AC<br>6 A / 24 V DC  |
| 230 V 50/60 Hz  | 115, 230 V 50/60 Hz<br>12, 24 V AC: 50/60 Hz  | 115, 230 V 50/60 Hz<br>12, 24 V AC: 50/60 Hz  | 115, 230 V 50/60 Hz<br>12, 24 V AC: 50/60 Hz   |
| yes ③   | yes ③   | yes ③   | yes ③  |
| <b>multifunctions</b>   | <b>multifunctions</b>   | <b>multifunctions</b>   | <b>multifunctions</b>  |
| ON, OFF, AUTO, R, Wi, Extra Time  | E, Wu, Bp, Bi, PWM, R, Ws, Wa, Esa, B, ON / OFF   | E, Wu, Bp, Bi, PWM, R, Ws, Wa, Esa, B, ON / OFF   | E, Wu, Bp, Bi, PWM, R, Ws, Wa, Esa, B, ON / OFF  |
| 1 s; 10 s; 20 s; 30 s;<br>1 min.; 1,5 min.; 2 min.;<br>3 min.; 5 min.; 10 min.                        | 1 s; 10 s;<br>1 min.; 10 min.;<br>1 h; 10 h; 1 d; 10 d  | 1 s; 10 s;<br>1 min.; 10 min.;<br>1 h; 10 h; 1 d; 10 d  | 1 s; 10 s;<br>1 min.; 10 min.;<br>1 h; 10 h; 1 d; 10 d   |
| LED green and yellow  | LED green and yellow  | LED green and yellow  | LED green and yellow   |
| 250 V AC  | 250 V AC  | 250 V AC  | 250 V AC   |
| 4 000 V AC ③<br>1 000 V AC ③  | 2 000 V AC ③<br>1 000 V AC ③  | 2 000 V AC ③<br>1 000 V AC ③  | 2 500 V AC ③<br>1 500 V AC ③   |
| III   | III   | III   | II   |
| 90(98,8) x 17,5 x 64,6  | 90 x 17,6 x 55  | 90 x 17,6 x 55  | 90 x 36 x 55   |
| > 3 x 10 <sup>7</sup> (cycles)  | > 3 x 10 <sup>7</sup> (cycles)  | > 3 x 10 <sup>7</sup> (cycles)  | > 2 x 10 <sup>7</sup> (cycles)   |
| IP 20 (EN 60529)  | IP 20 (EN 60529)  | IP 20 (EN 60529)  | IP 20 (EN 60529)   |
| <br>version 1 NO ③ | <br>version 1 CO, AC ③ | <br>version 2 CO, AC ③ | <br>version 4 CO, AC ③ |
|                    |                        |                        |                       |

① Descriptions and diagrams of time functions - see pages 75-76. ③ The control terminal S (B1) is activated by connection to A1 terminal via the external control contact S. ⑤ Time ranges T1 (start-up for the star); transit time T2: 0,05...0,9 s.









# Time relays

| Type  | T-R4 - GZM4  | PIR15...T  | COM3  |
|---|--|--|---|
| Output circuit  |   | with time module<br>COM3    | universal<br>time modules<br> |
| Number and type of contacts   | 4 CO   | 2 CO, 3 CO    |                              |
| Contact material  | AgNi   | AgNi   |   |
| Max. voltage AC   | 250 V  | 440 V  |   |
| Rated load AC1<br>DC1   | 6 A / 230 V AC   | 10 A / 250 V AC<br>10 A / 24 V DC  |   |
| Input circuit   |  |  |   |
| Rated voltage AC  | 24, 115, 230 V 50/60 Hz  | 24, 48, 60, 110, 120,<br>230, 240 V 50/60 Hz   |   |
| DC  | 12, 24 V   | 24, 48, 60, 110, 120,<br>220 V   |   |
| AC/DC   |  |  | 24...240 V AC: 50/60 Hz   |
| Control contact S   | no   | yes   | yes                          |
| Time module   |  |  |   |
| Functions number  | single-functions   | multifunctions   | multifunctions  |
| Functions  | E (T-R4E) / Wu (T-R4Wu)<br>Bp (T-R4Bp) / Bi (T-R4Bi)   | E, Wu, Bp, Bi, R,<br>Ws, Wa, Es  | E, Wu, Bp, Bi, R,<br>Ws, Wa, Es   |
| Time ranges   | 1 s; 10 s;<br>1 min.; 10 min.;<br>1 h; 10 h; 100 h   | 1 s; 10 s;<br>1 min.; 10 min.;<br>1 h; 10 h; 1 d; 10 d   | 1 s; 10 s;<br>1 min.; 10 min.;<br>1 h; 10 h; 1 d; 10 d  |
| Indicator   | LED green and yellow   | LED green  | LED green   |
| Insulation  |  |  |   |
| Insulation rated voltage  | 250 V AC   | 250 V AC   |   |
| Dielectric strength<br>• input - output<br>• contact clearance                                | 2 500 V AC <br>1 500 V AC  | 2 500 V AC <br>1 500 V AC  |   |
| Overtoltage category  | III  | III  |   |
| General data  |  |  |   |
| Dimensions mm   | 75 x 27 x 91,5    | 73 x 38,2 x 85,4   | 26,5 x 35 x 47  |
| Mechanical life   | > 2 x 10 <sup>7</sup> (cycles)   | > 2 x 10 <sup>7</sup> (cycles)   |   |
| Protection category   | IP 20 (EN 60529)   | IP 20 (EN 60529)   | IP 40 (EN 60529)  |
| Connection diagrams   |   |   |   |
| Recognitions, certifications, directives  |   |   |                            |



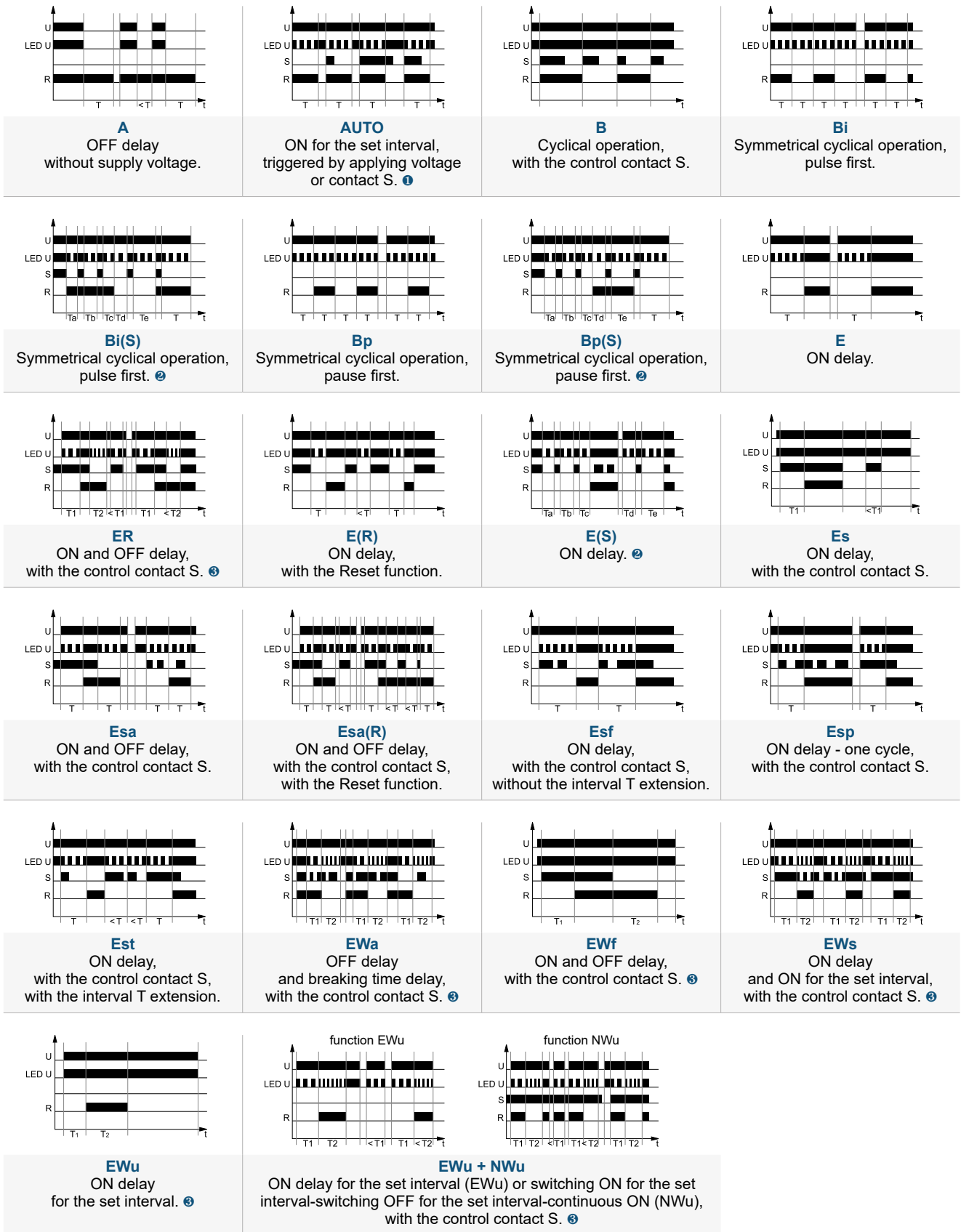
 Type of insulation: basic

 Type of clearance: micro-disconnection

 Descriptions and diagrams of time functions - see pages 75-76.  The control terminal S (B1) is activated by connection to A1 terminal via the external control contact S.  T-R4: mounted in plug-in socket GZM4.  PIR15 - 3 CO (standard) - set: R15 - 3 CO + GZP11; PIR15 - 2 CO - set: R15 - 2 CO + GZP8.  According to relays R15 - 3 CO (2 CO).



# Functions time



① Staircase switches - mode "Extra Time"    ② Time T measuring stop by contact S    ③ Independently adjustment times T1 and T2

U - supply voltage; R - output state of the relay; S - control contact state; T, T1, T2, T3 - measured times; t - time axis

**NOTE:** the diagrams are of general information, and detailed performance descriptions are specified in catalog cards of time relays - see [www.repol.com.pl](http://www.repol.com.pl)

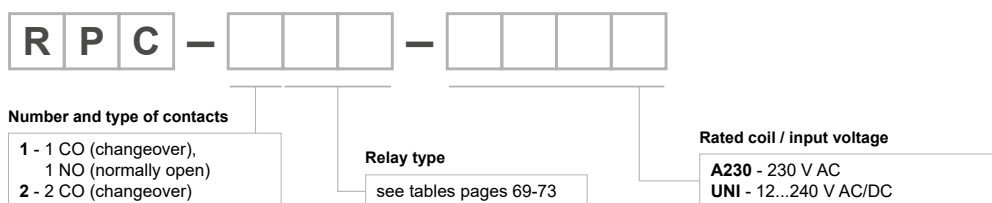
# Functions time

|   |  |   |  |
|---|--|---|--|
|   |  |   |  |
| <p><b>nWa</b><br/>Maintained single shot trailing edge. ③ ④</p>   | <p><b>nWu</b><br/>Maintained single shot leading edge. ③ ④</p>                           | <p><b>nWuWa</b><br/>Maintained single shot leading and trailing edge. ③ ④</p>                               | <p><b>nWs</b><br/>Latching ON delay. ③ ④</p>   |
|   |  |   |  |
| <p><b>Pi</b><br/>Cyclical operation, pulse first. ③ ④</p>   | <p><b>Pi(S)</b><br/>Cyclical operation, pulse first, with the control contact S. ③ ④</p> | <p><b>Pp</b><br/>Cyclical operation, pause first. ③ ④</p>   | <p><b>Pp(S)</b><br/>Cyclical operation, pause first, with the control contact S. ③ ④</p> |
|   |  |   |  |
| <p><b>li + lp</b><br/>Cyclical operation, pulse first (li) or pause first (lp), with the control contact S. ③</p> | <p><b>PWM</b><br/>Pulse width modulation. ⑤</p>  | <p><b>R</b><br/>OFF delay, with the control contact S. ①</p>  |  |
|   |  |   |  |
| <p><b>Ra</b><br/>OFF delay, with the control contact S, without the interval T extension. ①</p>                   | <p><b>SD</b><br/>Star-Delta start-up. ③</p>  | <p><b>T</b><br/>Generation of the 0,5 s pulse after the interval T. ③</p>                                   | <p><b>Wa</b><br/>ON for the set interval, with the control contact S. ③</p>              |
|   |  |   |  |
| <p><b>Wi</b><br/>ON for the set interval, with the control contact S. ③ ①</p>                                     | <p><b>Ws</b><br/>Single shot for the set interval, with the control contact S. ③</p>     | <p><b>Wst</b><br/>ON for the set interval, with the control contact S, with the interval T extension. ③</p> | <p><b>WsWa</b><br/>ON for the set intervals, with the control contact S. ③</p>           |
|   |  |   |  |
| <p><b>Wt</b><br/>Monitoring of the sequence of pulses, switching on extended with contact S. ③</p>                | <p><b>Wu</b><br/>ON for the set interval. ③</p>  | <p><b>Wu(R)</b><br/>ON for the set interval, with the Reset function. ③</p>                                 | <p><b>Wu(S)</b><br/>ON for the set interval. ③</p>                                       |
| <p><b>OFF</b><br/>Stable OFF.</p>   | <p><b>ON</b><br/>Stable ON.</p>  | <p><b>ON / OFF</b><br/>Stable ON / OFF.</p>   |  |

① Staircase switches - mode "Extra Time" ② Time T measuring stop by contact S ③ Independently adjustment times T1 and T2 ④ Turning on or omitting T3 time ⑤ Tz - value of the set interval ⑥ Function of switching off the relay R prior the interval T

U - supply voltage; R - output state of the relay; S - control contact state; T, T1, T2, T3 - measured times; t - time axis

## Time relays



### ORDERING CODES

| Index            | Code                         | Description  |
|------------------|------------------------------|--|
| 863199<br>863181 | RPC-1MA-A230<br>RPC-1MA-UNI  | multifunction (10 functions, 8 ranges), one changeover contact 16 A  |
| 863201<br>863183 | RPC-2MA-A230<br>RPC-2MA-UNI  | multifunction (10 functions, 8 ranges), two changeover contacts 8 A  |
| 863200<br>863182 | RPC-1MB-A230<br>RPC-1MB-UNI  | multifunction (10 functions, 8 ranges), one changeover contact 16 A  |
| 863202<br>863184 | RPC-2MB-A230<br>RPC-2MB-UNI  | multifunction (10 functions, 8 ranges), two changeover contacts 8 A  |
| 863217           | RPC-2A-UNI                   | multifunction (6 functions, 10 ranges), operation after the power supply is switched off, two changeover contacts 8 A                |
| 863216           | RPC-1MC-UNI                  | multifunction (14 functions, 8 ranges), immediate activation of the function, one changeover contact 16 A                            |
| 863218           | RPC-1MD-UNI                  | multifunction (10 functions, 8 ranges), immediate activation of the function, one changeover contact 16 A                            |
| 863219           | RPC-3MD-UNI                  | multifunction (10 functions, 8 ranges), immediate activation of the function, three changeover contacts 8 A                          |
| 863203<br>863185 | RPC-1ER-A230<br>RPC-1ER-UNI  | single-function (function ER, 8 ranges - times T1, T2), one changeover contact 16 A  |
| 863204<br>863204 | RPC-1EA-A230<br>RPC-1EA-A230 | single-function (function EWa, 8 ranges - times T1, T2), one changeover contact 16 A   |
| 863205<br>863187 | RPC-1ES-A230<br>RPC-1ES-UNI  | single-function (function EWs, 8 ranges - times T1, T2), one changeover contact 16 A   |
| 863206<br>863188 | RPC-1EU-A230<br>RPC-1EU-UNI  | single-function (function EWu + NWu, 8 ranges - times T1, T2), one changeover contact 16 A   |
| 863207<br>863189 | RPC-1IP-A230<br>RPC-1IP-UNI  | single-function (function li + lp, 8 ranges - times T1, T2), one changeover contact 16 A   |
| 863208<br>863190 | RPC-1SA-A230<br>RPC-1SA-UNI  | single-function (function WsWa, 8 ranges - times T1, T2), one changeover contact 16 A  |
| 863209<br>863191 | RPC-1WT-A230<br>RPC-1WT-UNI  | single-function (function Wt, 8 ranges - times T1, T2), one changeover contact 16 A  |
| 863210<br>863193 | RPC-1E-A230<br>RPC-1E-UNI    | single-function (function E, 8 ranges), one changeover contact 16 A  |
| 863213<br>863196 | RPC-2E-A230<br>RPC-2E-UNI    | single-function (function E, 8 ranges), two changeover contacts 8 A  |
| 863211<br>863194 | RPC-1WU-A230<br>RPC-1WU-UNI  | single-function (function Wu, 8 ranges), one changeover contact 16 A   |
| 863214<br>863197 | RPC-2WU-A230<br>RPC-2WU-UNI  | single-function (function Wu, 8 ranges), two changeover contacts 8 A   |
| 863212<br>863195 | RPC-1BP-A230<br>RPC-1BP-UNI  | single-function (function Bp, 8 ranges), one changeover contact 16 A   |
| 863215<br>863198 | RPC-2BP-A230<br>RPC-2BP-UNI  | single-function (function Bp, 8 ranges), two changeover contacts 8 A   |
| 863192           | RPC-2SD-UNI                  | Star-Delta start-up (10 ranges - times T1, T2), two changeover contacts 8 A  |
| 863220           | RPC-1AS-A230                 | staircase switch (5 functions, 10 ranges), one normally open contact 16 A  |
| 860470           | MT-W-17S-11-9240-M           | electronic with display, multifunction (25 functions, times T1, T2, T3), one changeover contact 10 A, input voltage 12...240 V AC/DC |

## Time relays

### ORDERING CODES

| Index  | Code                | Description  |                          |
|--------|---------------------|--|--------------------------|
| 854941 | T-R4E-2014-23-1024  | single-function (function E, 7 ranges),<br>four changeover contacts 6 A  | input voltage 24 V DC    |
| 854942 | T-R4E-2014-23-5024  |  | input voltage 24 V AC    |
| 854016 | T-R4E-2014-23-5230  |  | input voltage 230 V AC   |
| 854945 | T-R4Wu-2014-23-1024 | single-function (function Wu, 7 ranges),<br>four changeover contacts 6 A | input voltage 24 V DC    |
| 854946 | T-R4Wu-2014-23-5024 |  | input voltage 24 V AC    |
| 854017 | T-R4Wu-2014-23-5230 |  | input voltage 230 V AC   |
| 854936 | T-R4Bp-2014-23-1024 | single-function (function Bp, 7 ranges),<br>four changeover contacts 6 A | input voltage 24 V DC    |
| 854937 | T-R4Bp-2014-23-5024 |  | input voltage 24 V AC    |
| 854939 | T-R4Bp-2014-23-5230 |  | input voltage 230 V AC   |
| 854936 | T-R4Bp-2014-23-1024 | single-function (function Bi, 7 ranges),<br>four changeover contacts 6 A | input voltage 24 V DC    |
| 854937 | T-R4Bp-2014-23-5024 |  | input voltage 24 V AC    |
| 854939 | T-R4Bp-2014-23-5230 |  | input voltage 230 V AC   |
| 854931 | T-R4Bi-2014-23-1024 | single-function (function Bi, 7 ranges),<br>four changeover contacts 6 A | input voltage 24 V DC    |
| 854932 | T-R4Bi-2014-23-5024 |  | input voltage 24 V AC    |
| 854934 | T-R4Bi-2014-23-5230 |  | input voltage 230 V AC   |
| 855538 | PIR152-024DC-00T    | multifunction (8 functions, 8 ranges),<br>two changeover contacts 10 A   | input voltage 24 V DC    |
| 855618 | PIR152-220DC-00T    |  | input voltage 220 V DC   |
| 855539 | PIR152-024AC-00T    |  | input voltage 24 V AC    |
| 855540 | PIR152-230AC-00T    |  | input voltage 230 V AC   |
| 855535 | PIR153-024DC-00T    | multifunction (8 functions, 8 ranges),<br>three changeover contacts 10 A | input voltage 24 V DC    |
| 855608 | PIR153-220DC-00T    |  | input voltage 220 V DC   |
| 855536 | PIR153-024AC-00T    |  | input voltage 24 V AC    |
| 855537 | PIR153-230AC-00T    |  | input voltage 230 V AC   |
| 856580 | TR4N-230AC-11-M     | multifunction (10 functions, 8 ranges),<br>one changeover contact 16 A   | input voltage 230 V AC   |
| 856578 | TR4N-24AC/DC-11-M   |  | input voltage 24 V AC/DC |
| 856584 | TR4N-230AC-12-M     | multifunction (10 functions, 8 ranges),<br>two changeover contacts 8 A   | input voltage 230 V AC   |
| 856582 | TR4N-24AC/DC-12-M   |  | input voltage 24 V AC/DC |
| 856104 | TR4N-230AC-14-M     | multifunction (10 functions, 8 ranges),<br>four changeover contacts 6 A  | input voltage 230 V AC   |
| 856101 | TR4N-24AC/DC-14-M   |  | input voltage 24 V AC/DC |

# Monitoring relays

- $I_n$  currents of outputs: 5 A or 12 A.
- Available versions:
  - in modular covers: RPN series, MR-E series,
  - in industrial covers: MR-G series.
- Method of mounting: on 35 mm rail mount.




















|                     |    |
|---------------------|----|
| RPN-1VF-A400 .....  | 80 |
| RPN-1VFS-A400 ..... | 80 |
| RPN-1VFR-A400 ..... | 80 |
| RPN-1VFT-A400 ..... | 80 |
| RPN-1A..-A230 ..... | 81 |
| RPN-1TMP-A230 ..... | 81 |
| RPN-1AT-A230 .....  | 81 |
| MR-EU1W1P .....     | 81 |
| MR-EU31UW1P .....   | 81 |
| MR-EU3M1P .....     | 82 |
| MR-EI1W1P .....     | 82 |
| MR-ET1P .....       | 82 |
| MR-GU32P-TR2 .....  | 82 |
| MR-GU3M2P-TR2 ..... | 83 |
| MR-GU3M2P .....     | 83 |
| MR-GI1M2P-TR2 ..... | 83 |
| MR-GT2P-TR2 .....   | 83 |


## Applications in low voltage systems:

- DC voltage monitoring,
- AC voltage monitoring in 1- and 3-phase network,
- DC current monitoring,
- AC current monitoring in 1-phase network,
- motor temperature monitoring.




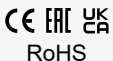



## Monitoring relays

| Type  | RPN-1VF-A400  | RPN-1VFS-A400   | RPN-1VFR-A400   | RPN-1VFT-A400   |
|---|---|---|---|---|
|   |    |    |    |    |
| <b>Output circuit</b>   |   |   |   |   |
| Number and type of contacts   | 1 CO  | 1 CO  | 1 CO  | 1 CO  |
| Contact material  | AgSnO <sub>2</sub>  | AgSnO <sub>2</sub>  | AgSnO <sub>2</sub>  | AgSnO <sub>2</sub>  |
| Max. voltage AC   | 300 V   | 300 V   | 300 V   | 300 V   |
| Rated load AC1<br>DC1   | 12 A / 250 V AC<br>12 A / 24 V DC   | 12 A / 250 V AC<br>12 A / 24 V DC   | 12 A / 250 V AC<br>12 A / 24 V DC   | 12 A / 250 V AC<br>12 A / 24 V DC   |
| <b>Input circuit</b>  |   |   |   |   |
| Supply voltage  | = monitoring voltage  | = monitoring voltage  | = monitoring voltage  | = monitoring voltage  |
| Rated voltage   | AC: 3(N)~ 400/230 V   | AC: 3(N)~ 400/230 V   | AC: 3(N)~ 400/230 V   | AC: 3(N)~ 400/230 V   |
| Range of supply voltage / frequency   | 0,7...1,15 U <sub>n</sub> /<br>AC: 48...63 Hz   | 0,7...1,15 U <sub>n</sub> /<br>AC: 48...63 Hz   | 0,7...1,15 U <sub>n</sub> /<br>AC: 48...63 Hz   | 0,7...1,15 U <sub>n</sub> /<br>AC: 48...63 Hz   |
| Working cycle   |   |   |   |   |
| <b>Measuring circuit</b>  |   |   |   |   |
| Functions number  | multifunctions  | multifunctions  | multifunctions  | multifunctions  |
| Functions  | AC voltage monitoring in 3-phase network 3(N)~ 400/230 V, monitoring of phase failure, asymmetry  | AC voltage monitoring in 3-phase network 3(N)~ 400/230 V, monitoring of phase failure, asymmetry, phase sequence  | AC voltage monitoring in 3-phase network 3(N)~ 400/230 V, monitoring of phase failure, asymmetry, phase sequence  | AC voltage monitoring in 3-phase network 3(N)~ 400/230 V, monitoring of phase failure, asymmetry, phase sequence, tripping delay  |
| Measured value  | 3(N)~, sinus, 48...63 Hz  | 3(N)~, sinus, 48...63 Hz  | 3(N)~, sinus, 48...63 Hz  | 3(N)~, sinus, 48...63 Hz  |
| Measuring inputs  | = supply voltage AC: 3(N)~ 400/230 V  | = supply voltage AC: 3(N)~ 400/230 V  | = supply voltage AC: 3(N)~ 400/230 V  | = supply voltage AC: 3(N)~ 400/230 V  |
| Overload capacity   | ≥ 1,2 U <sub>n</sub>  | ≥ 1,2 U <sub>n</sub>  | ≥ 1,2 U <sub>n</sub>  | ≥ 1,2 U <sub>n</sub>  |
| Switching thresholds  | PHASE: 175 V AC<br>ASYMMETRY: 55 V AC   | PHASE: 175 V AC<br>ASYMMETRY: 55 V AC   | PHASE: 175 V AC<br>ASYMMETRY (adjustment):<br>5...80 V AC   | PHASE: 175 V AC<br>ASYMMETRY (adjustment):<br>5...80 V AC   |
| Indicator   | LED green/red   | LED green/red and yellow  | LED green/red and yellow  | LED green/red and yellow  |
| <b>Insulation</b>   |   |   |   |   |
| Insulation rated voltage  | 400 V AC  | 400 V AC  | 400 V AC  | 400 V AC  |
| Rated surge voltage   | 4 000 V   | 4 000 V   | 4 000 V   | 4 000 V   |
| Overvoltage category  | III   | III   | III   | III   |
| <b>General data</b>   |   |   |   |   |
| Dimensions mm   | 90(98,8) x 17,5 x 64,6  | 90(98,8) x 17,5 x 64,6  | 90(98,8) x 17,5 x 64,6  | 90(98,8) x 17,5 x 64,6  |
| Mechanical life   | > 3 x 10 <sup>7</sup> (cycles)  | > 3 x 10 <sup>7</sup> (cycles)  | > 3 x 10 <sup>7</sup> (cycles)  | > 3 x 10 <sup>7</sup> (cycles)  |
| Protection category   | IP 20 (EN 60529)  | IP 20 (EN 60529)  | IP 20 (EN 60529)  | IP 20 (EN 60529)  |
| Recognitions, certifications, directives  |   <br>RoHS |   <br>RoHS |   <br>RoHS |   <br>RoHS |

 Connection diagrams, descriptions and diagrams of functions nadzorczych - see [www.relpol.com.pl](http://www.relpol.com.pl)



## Monitoring relays





| RPN-1A..A230  | RPN-1TMP-A230   | RPN-1AT-A230  | MR-EU1W1P  | MR-EU31UW1P  |
|---|---|---|--|--|
|                                        |            |            |                 |   |
| 1 CO  | 1 CO  | 1 CO  | 1 CO   | 1 CO   |
| AgSnO <sub>2</sub>  | AgSnO <sub>2</sub>  | AgSnO <sub>2</sub>  |  |  |
| 300 V   | 300 V   | 300 V   |  |  |
| 12 A / 250 V AC<br>12 A / 24 V DC   | 12 A / 250 V AC<br>12 A / 24 V DC   | 12 A / 250 V AC<br>12 A / 24 V DC   | 5 A / 250 V AC   | 5 A / 250 V AC   |
|   |   |   |  |  |
| AC: 230 V   | AC: 230 V   | AC: 230 V   | = monitoring voltage   | = monitoring voltage   |
| AC: 230 V   | AC: 230 V   | AC: 230 V   | AC: 24, 230 V<br>DC: 24 V  | AC: 230 V<br>AC: 3(N)~ 400/230 V   |
| 0,85...1,15 U <sub>n</sub> /<br>AC: 48...63 Hz  | 0,85...1,15 U <sub>n</sub> /<br>AC: 48...63 Hz  | 0,85...1,15 U <sub>n</sub> /<br>AC: 48...63 Hz  | 0,75...1,2 U <sub>n</sub> /<br>AC: 48...63 Hz  | 0,7...1,3 U <sub>n</sub> /<br>AC: 48...63 Hz   |
|   |   |   | 100%   | 100%   |
|   |   |   |  |  |
| multifunctions  | single-functions  | single-functions  | multifunctions   | multifunctions   |
| AC current monitoring<br>in 1-phase network,<br>MIN and MAX value<br>monitoring,<br>fault latch mode,<br>tripping delay | motor temperature<br>monitoring,<br>button TEST/RESET                                       | motor temperature<br>monitoring,<br>self-RESET  | DC and AC<br>voltage monitoring<br>in 1-phase network,<br>MIN value monitoring,<br>hysteresis mode | AC voltage monitoring<br>in 1-phase network<br>and 3-phase<br>3(N)~ 400/230 V,<br>monitoring of phase<br>failure, phase sequence |
| AC sinus,<br>48...63 Hz   |   |   | DC or AC sinus,<br>48...63 Hz  | 3(N)~, sinus,<br>48...63 Hz  |
| AC: 0,5 ... 16 A <sup>Ⓜ</sup><br>/ 230 V AC   |   |   | = supply voltage<br>AC: 24, 230 V<br>DC: 24 V  | = supply voltage<br>AC: 230 V<br>AC: 3(N)~ 400/230 V   |
| 2 ... 20 A <sup>Ⓜ</sup>   | SHORT-CIRCUIT: ≤ 10 Ω   | SHORT-CIRCUIT: ≤ 10 Ω   | ≥ 1,2 U <sub>n</sub>   | <sup>Ⓜ</sup>   |
| MIN: 0,05...0,95 I <sub>n</sub><br>MAX: 0,1...1,0 I <sub>n</sub>  | MIN: 1,65 kΩ<br>WARNING: 3,3 kΩ<br>MAX: 3,6 kΩ  | MIN: 1,65 kΩ<br>WARNING: 3,3 kΩ<br>MAX: 3,6 kΩ  | MIN: 0,75...1,15 U <sub>n</sub><br>MAX: 0,8...1,2 U <sub>n</sub>                                   | MIN: 0,7...1,2 U <sub>n</sub><br>MAX: 0,8...1,3 U <sub>n</sub>   |
| LED green, yellow<br>and red  | LED green, yellow<br>and red  | LED green, yellow<br>and red  | LED green, yellow<br>and red   | LED yellow and red   |
|   |   |   |  |  |
| 250 V AC  | 250 V AC  | 250 V AC  |  |  |
| 4 000 V   | 4 000 V   | 4 000 V   | 4 000 V  | 4 000 V  |
| III   | III   | III   | III  | III  |
|   |   |   |  |  |
| 90(98,8) x 17,5 x 64,6  | 90(98,8) x 17,5 x 64,6  | 90(98,8) x 17,5 x 64,6  | 87 x 17,5 x 65   | 87 x 17,5 x 65   |
| > 3 x 10 <sup>7</sup> (cycles)  | > 3 x 10 <sup>7</sup> (cycles)  | > 3 x 10 <sup>7</sup> (cycles)  | > 2 x 10 <sup>7</sup> (cycles)   | > 2 x 10 <sup>7</sup> (cycles)   |
| IP 20 (EN 60529)  | IP 20 (EN 60529)  | IP 20 (EN 60529)  | IP 20 (EN 60529)   | IP 20 (EN 60529)   |
| <br>RoHS                             | <br>RoHS | <br>RoHS | <br>RoHS      | <br>RoHS                                    |

<sup>Ⓜ</sup> Depending on relay version (RPN-1A05/1/2/5/8/16) - see [www.relpol.com.pl](http://www.relpol.com.pl)  
<sup>Ⓜ</sup> Determined by the tolerance specified for supply voltage









## Monitoring relays

| Type                                     | MR-EU3M1P   | MR-EI1W1P  | MR-ET1P   | MR-GU32P-TR2  |   |
|--|---|--|---|---|---|
|  |  |                                 |      |  |   |
| <b>Output circuit</b>                    |   |  |   |   |   |
| Number and type of contacts              | 1 CO  | 1 CO   | 1 CO  | 2 CO  |   |
| Rated load                               | AC1<br>AC1  | 5 A / 250 V AC   | 5 A / 250 V AC  | 5 A / 250 V AC<br>3 A / 250 V AC  |   |
| <b>Input circuit</b>                     |   |  |   |   |   |
| Supply voltage                           | = monitoring voltage  | AC: 230 V  | AC: 230 V   | AC: 12, 24, 42, 48, 110, 127, 230, 400 V  |   |
| Rated voltage                            | AC: 3(N)~ 400/230 V   | AC: 230 V  | AC: 230 V   |   |   |
| Range of supply voltage / frequency      | 0,7...1,3 U <sub>n</sub> /<br>AC: 48...63 Hz                                      | 0,85...1,15 U <sub>n</sub> /<br>AC: 48...63 Hz   | 0,85...1,1 U <sub>n</sub> /<br>AC: 48...63 Hz   |   |   |
| Working cycle                            | 100%  | 100%   | 100%  | 100%  |   |
| <b>Measuring circuit</b>                 |   |  |   |   |   |
| Functions                                | number  | multifunctions   | multifunctions  | single-functions  | multifunctions  |
| Functions                                | 1   | AC voltage monitoring in 3-phase network 3(N)~ 400/230 V, monitoring of phase failure, asymmetry, phase sequence | AC current monitoring in 1-phase network, MIN and MAX value monitoring, hysteresis mode | motor temperature monitoring, button TEST/RESET                                     | AC voltages monitoring in phases - 230 V, 3-phase network, MIN and MAX value monitoring, fault latch mode |
| Measured value                           |   | 3(N)~, sinus, 48...63 Hz   | AC sinus, 48...63 Hz  |   | AC sinus, 48...63 Hz  |
| Measuring inputs                         |   | = supply voltage<br>AC: 3(N)~ 400/230 V  | AC: 10 A / 230 V AC   |   | AC: 230 V   |
| Overload capacity                        |   |  | 13 A  |   | 440 V AC  |
| Switching thresholds                     |   |  | MIN: 0,05...0,95 I <sub>n</sub><br>MAX: 0,1...1,0 I <sub>n</sub>                        | relay OFF: ≥ 3,6 kΩ<br>relay ON: ≤ 1,65 kΩ  | MIN: 0,7...1,2 U <sub>n</sub><br>MAX: 0,8...1,3 U <sub>n</sub>  |
| Indicator                                |   | LED green and yellow   | LED green, yellow and red   | LED green and red   | LED green, yellow and red   |
| <b>Insulation</b>                        |   |  |   |   |   |
| Rated surge voltage                      |   | 4 000 V  | 4 000 V   | 6 000 V   | 4 000 V   |
| Overvoltage category                     |   | III  | III   | III   | III   |
| <b>General data</b>                      |   |  |   |   |   |
| Dimensions                               | mm  | 87 x 17,5 x 65   | 87 x 17,5 x 65  | 87 x 35 x 65  | 90 x 22,5 x 108   |
| Mechanical life                          |   | > 2 x 10 <sup>7</sup> (cycles)   | > 2 x 10 <sup>7</sup> (cycles)  | > 2 x 10 <sup>7</sup> (cycles)  | > 2 x 10 <sup>7</sup> (cycles)  |
| Protection category                      |   | IP 20 (EN 60529)   | IP 20 (EN 60529)  | IP 20 (EN 60529)  | IP 20 (EN 60529)  |
| Recognitions, certifications, directives |   | CE<br>RoHS   | CE<br>RoHS  | CE<br>RoHS  | CE<br>RoHS  |

1 Connection diagrams, descriptions and diagrams of monitoring functions - see [www.relpol.com.pl](http://www.relpol.com.pl)



## Monitoring relays

| MR-GU3M2P-TR2  | MR-GU3M2P  | MR-GI1M2P-TR2  | MR-GT2P-TR2   |
|--|--|--|---|
|   |                             |                               |  |
| 2 CO   | 2 CO   | 2 CO   | 2 CO  |
| 3 A / 250 V AC ④<br>5 A / 250 V AC ④   | 3 A / 250 V AC ④<br>5 A / 250 V AC ④   | 3 A / 250 V AC ④<br>5 A / 250 V AC ④   | 3 A / 250 V AC ④<br>5 A / 250 V AC ④  |
| AC: 12, 24, 42, 48,<br>110, 127, 230, 400 V ⑤  | = monitoring voltage   | AC: 12, 24, 42, 48,<br>110, 127, 230, 400 V ⑤  | AC: 12, 24, 42, 48,<br>110, 127, 230, 400 V ⑤                                       |
| ⑤  | 3(N)~ 342...457 V /<br>AC: 48...63 Hz  | ⑤  | ⑤   |
| 100%   | 100%   | 100%   | 100%  |
| multifunctions   | multifunctions   | multifunctions   | single-functions  |
| AC voltage monitoring<br>in 3-phase network,<br>MIN and MAX value<br>monitoring,<br>monitoring of phase<br>failure, asymmetry,<br>phase sequence | AC voltage monitoring<br>in 3-phase network,<br>monitoring of phase<br>failure, asymmetry,<br>phase sequence | DC and AC<br>current monitoring<br>in 1-phase network,<br>MIN and MAX value<br>monitoring,<br>fault latch mode | motor temperature<br>monitoring,<br>button TEST/RESET                               |
| AC sinus,<br>48...63 Hz  | AC sinus,<br>48...63 Hz  | DC or AC sinus,<br>16,6...400 Hz   |   |
| AC: 3(N)~ 400/230 V  | AC: 3(N)~ 400/230 V  | AC/DC: 0,1 A<br>AC/DC: 1 A<br>AC/DC: 10 A  |   |
| 3(N)~ 600/346 V  | 3(N)~ 457/264 V  | 0,1 A AC/DC: 0,8 A<br>1 A AC/DC: 3 A<br>10 A AC/DC: 12 A   |   |
| MIN: 0,7...1,2 U <sub>n</sub><br>MAX: 0,8...1,3 U <sub>n</sub>   |  | MIN: 0,05...0,95 I <sub>n</sub><br>MAX: 0,1...1,0 I <sub>n</sub>   | relay OFF: ≥ 3,6 kΩ<br>relay ON: ≤ 1,8 kΩ   |
| LED yellow and red   | LED green and yellow   | LED green, yellow<br>and red   | LED green and red   |
| 4 000 V  | 4 000 V  | 4 000 V  | 4 000 V   |
| III  | III  | III  | III   |
| 90 x 22,5 x 108  | 90 x 22,5 x 108  | 90 x 22,5 x 108  | 90 x 22,5 x 108   |
| > 2 x 10 <sup>7</sup> (cycles)   | > 2 x 10 <sup>7</sup> (cycles)   | > 2 x 10 <sup>7</sup> (cycles)   | > 2 x 10 <sup>7</sup> (cycles)  |
| IP 20 (EN 60529)   | IP 20 (EN 60529)   | IP 20 (EN 60529)   | IP 20 (EN 60529)  |
| CE<br>RoHS   | CE<br>RoHS   | CE<br>RoHS   | CE<br>RoHS  |

④ 3 A - if the distance between the relays mounted side by side is less than 5 mm;

5 A - if the distance between the relays mounted side by side is greater than 5 mm

⑤ Depending on the supply TR2 transformer which shall be ordered as a separate product - see [www.relpol.com.pl](http://www.relpol.com.pl)



## Monitoring relays

### ORDERING CODES

| Index  | Code          | Description   |
|--------|---------------|---|
| 864371 | RPN-1VF-A400  | AC voltage monitoring in 3-phase network (supply voltage = monitoring), multifunction (2 functions, fixed asymmetry), one changeover contact 12 A, input voltage 3(N)~ 400/230 V AC                                 |
| 864372 | RPN-1VFS-A400 | AC voltage monitoring in 3-phase network (supply voltage = monitoring), multifunction (3 functions, fixed asymmetry, fixed tripping delay), one changeover contact 12 A, input voltage 3(N)~ 400/230 V AC           |
| 864373 | RPN-1VFR-A400 | AC voltage monitoring in 3-phase network (supply voltage = monitoring), multifunction (3 functions, adjustment asymmetry, fixed tripping delay), one changeover contact 12 A, input voltage 3(N)~ 400/230 V AC      |
| 864374 | RPN-1VFT-A400 | AC voltage monitoring in 3-phase network (supply voltage = monitoring), multifunction (3 functions, adjustment asymmetry, adjustment tripping delay), one changeover contact 12 A, input voltage 3(N)~ 400/230 V AC |
| 864364 | RPN-1A05-A230 | AC current monitoring in 1-phase network, multifunction (6 functions, measuring input 0,5 A, adjustment tripping delay), one changeover contact 12 A, input voltage 230 AC  |
| 864365 | RPN-1A1-A230  | AC current monitoring in 1-phase network, multifunction (6 functions, measuring input 1 A, adjustment tripping delay), one changeover contact 12 A, input voltage 230 AC  |
| 864366 | RPN-1A2-A230  | AC current monitoring in 1-phase network, multifunction (6 functions, measuring input 2 A, adjustment tripping delay), one changeover contact 12 A, input voltage 230 AC  |
| 864367 | RPN-1A5-A230  | AC current monitoring in 1-phase network, multifunction (6 functions, measuring input 5 A, adjustment tripping delay), one changeover contact 12 A, input voltage 230 AC  |
| 864368 | RPN-1A8-A230  | AC current monitoring in 1-phase network, multifunction (6 functions, measuring input 8 A, adjustment tripping delay), one changeover contact 12 A, input voltage 230 AC  |
| 864369 | RPN-1A16-A230 | AC current monitoring in 1-phase network, multifunction (6 functions, measuring input 16 A, adjustment tripping delay), one changeover contact 12 A, input voltage 230 AC   |
| 864370 | RPN-1TMP-A230 | motor temperature monitoring (short circuit of the thermistor line, button TEST/RESET), one changeover contact 12 A, input voltage 230 AC   |
| 865143 | RPN-1AT-A230  | motor temperature monitoring (short circuit of the thermistor line, self- RESET), one changeover contact 12 A, input voltage 230 AC   |

### ORDERING CODES

| Index   | Code        | Description   |
|---------|-------------|---|
| 2613071 | MR-EU1W1P   | DC and AC voltage monitoring in 1-phase network (supply voltage = monitoring), one changeover contact 5 A, input voltage 24, 230 AC, 24 V DC                |
| 2613069 | MR-EU31UW1P | AC voltage monitoring in 1-phase network and 3-phase (supply voltage = monitoring), one changeover contact 5 A, input voltage 230 AC, 3(N)~ 400/230 V AC    |
| 2612868 | MR-EU3M1P   | AC voltage monitoring in 3-phase network (supply voltage = monitoring), one changeover contact 5 A, input voltage 3(N)~ 400/230 V AC                        |
| 2613070 | MR-EI1W1P   | AC current monitoring in 1-phase network, one changeover contact 5 A, input voltage 230 AC  |
| 2613068 | MR-ET1P     | motor temperature monitoring (short circuit of the thermistor line or thermal contact, button TEST/RESET), one changeover contact 5 A, input voltage 230 AC |

### ORDERING CODES

| Index   | Code          | Description  |
|---------|---------------|--|
| 2613062 | MR-GU32P-TR2  | AC voltages monitoring in phases, 3-phase network (monitoring voltage 230 V AC), one changeover contact 5 A, input voltage 12 ... 400 V (transformer TR2)        |
| 2613064 | MR-GU3M2P-TR2 | AC voltage monitoring in 3-phase network (monitoring voltage 3(N)~ 400/230 V), one changeover contact 5 A, input voltage 12 ... 400 V (transformer TR2)          |
| 2613065 | MR-GU3M2P     | AC voltage monitoring in 3-phase network (supply voltage = monitoring), one changeover contact 5 A, input voltage 3(N)~ 400/230 V AC                             |
| 2613061 | MR-GI1M2P-TR2 | DC and AC current monitoring in 1-phase network, one changeover contact 5 A, input voltage 12 ... 400 V (transformer TR2)  |
| 2613067 | MR-GT2P-TR2   | motor temperature monitoring (short circuit of the thermistor line, button TEST/RESET), one changeover contact 5 A, input voltage 12 ... 400 V (transformer TR2) |

# Signal lamps



- Available versions:
  - in modular covers: RLK series.
- Method of mounting:
  - on 35 mm rail mount.




## Applications in low voltage systems:

- optic signaling of AC/DC voltage presence in 1-phase network,
- optic signaling of AC voltage presence in 3-phase network.

|              |    |
|--------------|----|
| RLK-1G ..... | 86 |
| RLK-1R ..... | 86 |
| RLK-1Y ..... | 86 |
| RLK-3G ..... | 87 |
| RLK-3R ..... | 87 |
| RLK-3K ..... | 87 |









## Signal lamps

| Type  | RLK-1G  | RLK-1R  | RLK-1Y  |
|---|---|---|---|
|   |  |  |  |
| <b>Input circuit</b>                        |   |   |   |
| Supply voltage AC/DC                        | 130...260 V<br>AC: 50/60 Hz   | 130...260 V<br>AC: 50/60 Hz   | 130...260 V<br>AC: 50/60 Hz   |
| Range of supply voltage / frequency         | 0,85...1,1 U <sub>n</sub> /<br>AC: 48...63 Hz                                     | 0,85...1,1 U <sub>n</sub> /<br>AC: 48...63 Hz                                     | 0,85...1,1 U <sub>n</sub> /<br>AC: 48...63 Hz                                       |
| Rated power consumption                     | DC: ≤ 0,7 W   | DC: ≤ 0,7 W   | DC: ≤ 0,7 W   |
| <b>Control circuit</b>                      |   |   |   |
| Functions                                   | self-operating  | self-operating  | self-operating  |
| Functions                                   | optic signaling<br>of AC/DC voltage<br>presence in 1-phase<br>network             | optic signaling<br>of AC/DC voltage<br>presence in 1-phase<br>network             | optic signaling<br>of AC/DC voltage<br>presence in 1-phase<br>network               |
| Indicator                                   | LED green   | LED red   | LED yellow  |
| <b>Insulation</b>                           |   |   |   |
| Insulation rated voltage                    | 250 V AC  | 250 V AC  | 250 V AC  |
| Rated surge voltage                         | 4 000 V   | 4 000 V   | 4 000 V   |
| Overvoltage category                        | II  | II  | II  |
| <b>General data</b>                         |   |   |   |
| Dimensions mm                               | 90(98,8) x 17,5 x 64,6  | 90(98,8) x 17,5 x 64,6  | 90(98,8) x 17,5 x 64,6  |
| Protection category                         | IP 20 (EN 60529)  | IP 20 (EN 60529)  | IP 20 (EN 60529)  |
| Recognitions,<br>certifications, directives | CE ENEC UK<br>RoHS  | CE ENEC UK<br>RoHS  | CE ENEC UK<br>RoHS  |



## Signal lamps

| Type  |    | RLK-3G  | RLK-3R  | RLK-3K  |
|---|----|---|---|---|
|   |    |      |      |    |
| <b>Input circuit</b>                        |    |   |   |   |
| Supply voltage                              | AC | 3(N)~ 400/230 V<br>50/60 Hz   | 3(N)~ 400/230 V<br>50/60 Hz   | 3(N)~ 400/230 V<br>50/60 Hz   |
| Range of supply voltage / frequency         |    | 0,85...1,1 U <sub>n</sub> /<br>AC: 48...63 Hz   | 0,85...1,1 U <sub>n</sub> /<br>AC: 48...63 Hz   | 0,85...1,1 U <sub>n</sub> /<br>AC: 48...63 Hz   |
| Rated power consumption                     |    | DC: ≤ 1,1 W   | DC: ≤ 1,1 W   | DC: ≤ 1,1 W   |
| <b>Control circuit</b>                      |    |   |   |   |
| Functions                                   |    | self-operating  | self-operating  | self-operating  |
| Functions                                   |    | optic signaling<br>of AC voltage<br>presence in 3-phase<br>network<br>3(N)~ 400/230 V | optic signaling<br>of AC voltage<br>presence in 3-phase<br>network<br>3(N)~ 400/230 V | optic signaling<br>of AC voltage<br>presence in 3-phase<br>network<br>3(N)~ 400/230 V |
| Indicator                                   |    | LED green   | LED red   | LED red,<br>yellow and green  |
| <b>Insulation</b>                           |    |   |   |   |
| Insulation rated voltage                    |    | 250 V AC  | 250 V AC  | 250 V AC  |
| Rated surge voltage                         |    | 4 000 V   | 4 000 V   | 4 000 V   |
| Overtoltage category                        |    | II  | II  | II  |
| <b>General data</b>                         |    |   |   |   |
| Dimensions                                  | mm | 90(98,8) x 17,5 x 64,6  | 90(98,8) x 17,5 x 64,6  | 90(98,8) x 17,5 x 64,6  |
| Protection category                         |    | IP 20 (EN 60529)  | IP 20 (EN 60529)  | IP 20 (EN 60529)  |
| Recognitions,<br>certifications, directives |    |    |    |  |



### ORDERING CODES

| Index  | Code   | Description  |
|--------|--------|--|
| 863027 | RLK-1G | signaling of AC/DC voltage in 1-phase network (1x LED green),<br>supply voltage 130...260 V AC/DC            |
| 863026 | RLK-1R | signaling of AC/DC voltage in 1-phase network (1x LED red),<br>supply voltage 130...260 V AC/DC              |
| 863025 | RLK-1Y | signaling of AC/DC voltage in 1-phase network (1x LED yellow),<br>supply voltage 130...260 V AC/DC           |
| 863030 | RLK-3G | signaling of AC voltage in 3-phase network (3x LED green),<br>supply voltage 3(N)~ 400/230 V AC              |
| 863029 | RLK-3R | signaling of AC voltage in 3-phase network (3x LED red),<br>supply voltage 3(N)~ 400/230 V AC                |
| 863028 | RLK-3K | signaling of AC voltage in 3-phase network (3x LED red, yellow, green),<br>supply voltage 3(N)~ 400/230 V AC |



# Solid state relays

- $I_n$  currents of outputs: 0,1 ... 80 A.
- Available versions:
  - miniature,
  - single-phase industrial,
  - three-phase industrial,
  - single-phase with heatsinks.
- Methods of mounting:  
THT, on panel mounting,  
on heatsinks, on 35 mm rail mount  
- depending on the type of relay.



|                        |    |
|------------------------|----|
| RSR30 .....            | 89 |
| RSR32 .....            | 89 |
| RSR35 .....            | 89 |
| RSR52 .....            | 89 |
| RSR62 .....            | 90 |
| RSR72...10I20I30 ..... | 90 |
| RSR72...40 .....       | 90 |
| RSR72...75 .....       | 90 |

## Applications:

- suitable for PCB mounted,
- temperature chamber,  
food processing machinery,  
injection molding machine,  
packaging machine,  
incubator, oiling machines,  
HVAC, lighting, fountain controller,
- three phase motor control,  
temperature control, large oven.





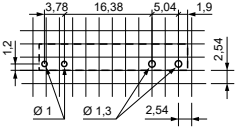
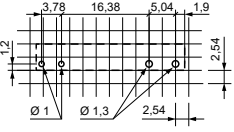
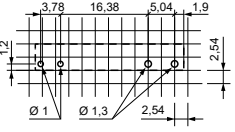








# Solid state relays

## miniature relays





## industrial

| Type  | RSR30   | RSR32   | RSR35  | RSR52   |
|---|---|---|--|---|
| Output circuit  |    |    |    |    |
| Type of outputs                                       | TTL and CMOS drive compatible   | TTL drive compatible  | transistor or MOSFET   | SCR (thyristors)  |
| Load voltage  | AC<br>DC  | 240 V   | 240 V  | 240, 480, 600 V   |
| Load current  | AC1<br>DC1  | 2 A<br>1, 2, 5, 4 A   | 2 A  | 10, 25, 40, 60, 80 A  |
| Input circuit   |   |   |  |   |
| Switching mode  |   | DC control (zero-crossing or random-on)   |  | AC control<br>DC control (zero-crossing or random-on)                                 |
| Control voltage                                       | AC<br>DC  | 5, 12, 24, 48 V   | 5, 12, 24 V  | 5, 12, 24, 48, 60 V   |
| Insulation  |   |   |  |   |
| Dielectric strength<br>• input - output               | 2 500 ... 4 000 V   | 2 500 V   | 2 500 V  | 4 000 V   |
| General data  |   |   |  |   |
| Dimensions  | mm  | 28 x 5 x 15   | 28 x 5,2 x 15  | 28 x 5,2 x 15   |
| Protection category                                   |   |   |  | IP 20 (EN 60529)  |
| Pinout<br>(solder side view)                          |  |  |  |   |
| Protections<br>Indicator<br>Heatsinks<br>Thermal pads |   |   |  | MOV (varistor)<br>LED red<br>RH<br>RTP-10   |
| Recognitions,<br>certifications, directives           |  |  |  |  |



# Solid state relays


## industrial relays

| Type                                     | RSR62   | RSR72...10 20 30  | RSR72...40   | RSR72...75  |
|--|---|---|--|---|
|  |  |  |  |  |
| <b>Output circuit</b>                    |   |   |  |   |
| Type of outputs                          | SCR (thyristors)  | SCR (thyristors)  | SCR (thyristors)   | SCR (thyristors)  |
| Load voltage AC                          | 480, 600 V  | 240, 480, 600 V   | 240, 480, 600 V  | 240, 480, 600 V   |
| Load current AC1<br>AC3                  | 25, 40, 60, 80 A  | 10, 20, 30 A  | 40 A   | 75 A  |
| <b>Input circuit</b>                     |   |   |  |   |
| Switching mode                           | AC control  | AC control  | AC control   | AC control  |
|  | DC control (zero-crossing or random-on)   | DC control (zero-crossing or random-on)   | DC control (zero-crossing or random-on)  | DC control (zero-crossing or random-on)   |
| Control voltage AC<br>DC                 | 90...280 V 50 Hz<br>4...32 V  | 90...280 V 50 Hz<br>4...32 V  | 90...280 V 50 Hz<br>4...32 V   | 90...280 V 50 Hz<br>4...32 V  |
| <b>Insulation</b>                        |   |   |  |   |
| Dielectric strength<br>• input - output  | 4 000 V   | 4 000 V   | 4 000 V  | 4 000 V   |
| <b>General data</b>                      |   |   |  |   |
| Dimensions mm                            | 105 x 78 x 38   | 100 x 30,5 x 112,5  | 122 x 50,5 x 110   | 153 x 105 x 122   |
| Protection category                      | IP 20 (EN 60529)  | IP 20 (EN 60529)  | IP 20 (EN 60529)   | IP 20 (EN 60529)  |
| Protections                              | RC/MOV (resistor, capacitor, varistor)  | RC/MOV (resistor, capacitor, varistor)  | RC/MOV (resistor, capacitor, varistor)   | RC/MOV (resistor, capacitor, varistor)  |
| Indicator                                | LED red   | LED red   | LED red  | LED red   |
| Heatsinks                                | RH  | integrated  | integrated   | integrated  |
| Thermal pads                             | RTP-30A   |   |  |   |
| Recognitions, certifications, directives | CE cULus EAC<br>RoHS, REACH   | CE cULus EAC<br>RoHS, REACH   | CE cULus EAC<br>RoHS, REACH  | CE cULus EAC<br>RoHS, REACH   |





# Solid state relays

## Heatsinks

|  |   |   |   |  |
|--|---|---|---|--|
| <b>RH21 (2616040)</b><br>For RSR52<br>            | <b>RH19A (2616041)</b><br>For RSR52<br>        | <b>RH19B (2616042)</b><br>For RSR52<br>          | <b>RH17A (2616043)</b><br>For RSR52<br>         | <b>RH17B (2616046)</b><br>For RSR52<br>           |
| <b>RH06B (2616051)</b><br>For RSR52<br>           | <b>RH16 (2616049)</b><br>For RSR52<br>         | <b>RH16-F (2616050)</b><br>For RSR52<br>         | <b>RH11 (2616052)</b><br>For RSR52, RSR62<br>   | <b>RH09 (2616044)</b><br>For RSR52, RSR62<br>     |
| <b>RH04A-F (2616045)</b><br>For RSR52, RSR62<br> | <b>RH08 (2616047)</b><br>For RSR52, RSR62<br> | <b>RH08-F (2616048)</b><br>For RSR52, RSR62<br> | <b>RH04B (2616053)</b><br>For RSR52, RSR62<br> | <b>RH04B-F (2616054)</b><br>For RSR52, RSR62<br> |

## Thermal pads

|   |  |
|---|--|
| <b>RTP-10 (2616058)</b><br>For RSR52<br> | <b>RTP-30A (2616060)</b><br>For RSR62<br> |
|---|--|



## Solid state relays

### ORDERING CODES

| Index   | Code                  | Description   |
|---------|-----------------------|---|
| 2611995 | RSR30-D05-D1-02-040-1 | input 5 V DC, output 4 A / 24 V DC                  |
| 2611996 | RSR30-D12-D1-02-040-1 | input 12 V DC, output 4 A / 24 V DC                 |
| 2611997 | RSR30-D24-D1-02-040-1 | input 24 V DC, output 4 A / 24 V DC                 |
| 2611998 | RSR30-D48-D1-02-040-1 | input 48 V DC, output 4 A / 24 V DC                 |
| 2611991 | RSR30-D05-D1-04-025-1 | input 5 V DC, output 2,5 A / 48 V DC                |
| 2611992 | RSR30-D12-D1-04-025-1 | input 12 V DC, output 2,5 A / 48 V DC               |
| 2611993 | RSR30-D24-D1-04-025-1 | input 24 V DC, output 2,5 A / 48 V DC               |
| 2611994 | RSR30-D48-D1-04-025-1 | input 48 V DC, output 2,5 A / 48 V DC               |
| 2611999 | RSR30-D05-D1-24-010-1 | input 5 V DC, output 1 A / 100 V DC                 |
| 2612000 | RSR30-D12-D1-24-010-1 | input 12 V DC, output 1 A / 100 V DC                |
| 2612001 | RSR30-D24-D1-24-010-1 | input 24 V DC, output 1 A / 100 V DC                |
| 2612002 | RSR30-D48-D1-24-010-1 | input 48 V DC, output 1 A / 100 V DC                |
| 2611988 | RSR30-D05-A1-24-020-1 | input 5 V DC, output 2 A / 240 V AC (single-phase)  |
| 2611989 | RSR30-D12-A1-24-020-1 | input 12 V DC, output 2 A / 240 V AC (single-phase) |
| 2611990 | RSR30-D24-A1-24-020-1 | input 24 V DC, output 2 A / 240 V AC (single-phase) |
| 2616016 | RSR32-24D2-5M         | input 5 V DC, output 2 A / 240 V AC (single-phase)  |
| 2616017 | RSR32-24D2-12M        | input 12 V DC, output 2 A / 240 V AC (single-phase) |
| 2616018 | RSR32-24D2-24M        | input 24 V DC, output 2 A / 240 V AC (single-phase) |
| 2616019 | RSR32-24D2R-5M        | input 5 V DC, output 2 A / 240 V AC (single-phase)  |
| 2616020 | RSR32-24D2R-12M       | input 12 V DC, output 2 A / 240 V AC (single-phase) |
| 2616021 | RSR32-24D2R-24M       | input 24 V DC, output 2 A / 240 V AC (single-phase) |
| 2616022 | RSR35-48D3-5M         | input 5 V DC, output 3 A / 48 V DC                  |
| 2616023 | RSR35-48D3-12M        | input 12 V DC, output 3 A / 48 V DC                 |
| 2616024 | RSR35-48D3-24M        | input 24 V DC, output 3 A / 48 V DC                 |
| 2616025 | RSR35-48D3-48M        | input 48 V DC, output 3 A / 48 V DC                 |
| 2616026 | RSR35-48D3-60M        | input 60 V DC, output 3 A / 48 V DC                 |
| 2616027 | RSR35-24D4-5M         | input 5 V DC, output 4 A / 24 V DC                  |
| 2616028 | RSR35-24D4-12M        | input 12 V DC, output 4 A / 24 V DC                 |
| 2616029 | RSR35-24D4-24M        | input 24 V DC, output 4 A / 24 V DC                 |
| 2616030 | RSR35-24D4-48M        | input 48 V DC, output 4 A / 24 V DC                 |
| 2616031 | RSR35-24D4-60M        | input 60 V DC, output 4 A / 24 V DC                 |
| 2616032 | RSR35-48D01-5M        | input 5 V DC, output 0,1 A / 48 V DC                |
| 2616033 | RSR35-48D01-12M       | input 12 V DC, output 0,1 A / 48 V DC               |
| 2616034 | RSR35-48D01-24M       | input 24 V DC, output 0,1 A / 48 V DC               |
| 2616035 | RSR35-48D01-48M       | input 48 V DC, output 0,1 A / 48 V DC               |
| 2616036 | RSR35-48D01-60M       | input 60 V DC, output 0,1 A / 48 V DC               |

### ORDERING CODES

| Index   | Code        | Description  |
|---------|-------------|--|
| 2615922 | RSR52-24A10 | input 90...280 V AC, output 10 A / 240 V AC (single-phase) |
| 2615924 | RSR52-24A25 | input 90...280 V AC, output 25 A / 240 V AC (single-phase) |
| 2615925 | RSR52-24A40 | input 90...280 V AC, output 40 A / 240 V AC (single-phase) |
| 2615926 | RSR52-24A60 | input 90...280 V AC, output 60 A / 240 V AC (single-phase) |
| 2615927 | RSR52-24A80 | input 90...280 V AC, output 80 A / 240 V AC (single-phase) |

## Solid state relays

### ORDERING CODES

| Index   | Code          | Description  |
|---------|---------------|--|
| 2615928 | RSR52-24D10   | input 4...32 V DC, output 10 A / 240 V AC (single-phase)   |
| 2615929 | RSR52-24D25   | input 4...32 V DC, output 25 A / 240 V AC (single-phase)   |
| 2615930 | RSR52-24D40   | input 4...32 V DC, output 40 A / 240 V AC (single-phase)   |
| 2615931 | RSR52-24D60   | input 4...32 V DC, output 60 A / 240 V AC (single-phase)   |
| 2615932 | RSR52-24D80   | input 4...32 V DC, output 80 A / 240 V AC (single-phase)   |
| 2615933 | RSR52-48A10   | input 90...280 V AC, output 10 A / 480 V AC (single-phase) |
| 2615934 | RSR52-48A25   | input 90...280 V AC, output 25 A / 480 V AC (single-phase) |
| 2615935 | RSR52-48A40   | input 90...280 V AC, output 40 A / 480 V AC (single-phase) |
| 2615936 | RSR52-48A60   | input 90...280 V AC, output 60 A / 480 V AC (single-phase) |
| 2615937 | RSR52-48A80   | input 90...280 V AC, output 80 A / 480 V AC (single-phase) |
| 2615938 | RSR52-48D10   | input 4...32 V DC, output 10 A / 480 V AC (single-phase)   |
| 2615939 | RSR52-48D25   | input 4...32 V DC, output 25 A / 480 V AC (single-phase)   |
| 2615940 | RSR52-48D40   | input 4...32 V DC, output 40 A / 480 V AC (single-phase)   |
| 2615941 | RSR52-48D60   | input 4...32 V DC, output 60 A / 480 V AC (single-phase)   |
| 2615942 | RSR52-48D80   | input 4...32 V DC, output 80 A / 480 V AC (single-phase)   |
| 2615943 | RSR52-60A25   | input 90...280 V AC, output 25 A / 600 V AC (single-phase) |
| 2615944 | RSR52-60A40   | input 90...280 V AC, output 40 A / 600 V AC (single-phase) |
| 2615945 | RSR52-60A60   | input 90...280 V AC, output 60 A / 600 V AC (single-phase) |
| 2615946 | RSR52-60D25   | input 4...32 V DC, output 25 A / 600 V AC (single-phase)   |
| 2615947 | RSR52-60D40   | input 4...32 V DC, output 40 A / 600 V AC (single-phase)   |
| 2615948 | RSR52-60D60   | input 4...32 V DC, output 60 A / 600 V AC (single-phase)   |
| 2615949 | RSR52-24D25-R | input 4...32 V DC, output 25 A / 240 V AC (single-phase)   |
| 2615950 | RSR52-24D60-R | input 4...32 V DC, output 60 A / 240 V AC (single-phase)   |
| 2615951 | RSR52-24D80-R | input 4...32 V DC, output 80 A / 240 V AC (single-phase)   |
| 2615952 | RSR52-48D25-R | input 4...32 V DC, output 25 A / 480 V AC (single-phase)   |
| 2615953 | RSR52-48D60-R | input 4...32 V DC, output 60 A / 480 V AC (single-phase)   |
| 2615954 | RSR52-48D80-R | input 4...32 V DC, output 80 A / 480 V AC (single-phase)   |
| 2615955 | RSR52-60D25-R | input 4...32 V DC, output 25 A / 600 V AC (single-phase)   |
| 2615956 | RSR52-60D60-R | input 4...32 V DC, output 60 A / 600 V AC (single-phase)   |
| 2615957 | RSR62-48D25   | input 4...32 V DC, output 25 A / 480 V AC (three-phase)    |
| 2615959 | RSR62-48A25   | input 90...280 V AC, output 25 A / 480 V AC (three-phase)  |
| 2615960 | RSR62-60D25   | input 4...32 V DC, output 25 A / 600 V AC (three-phase)    |
| 2615961 | RSR62-60A25   | input 90...280 V AC, output 25 A / 600 V AC (three-phase)  |
| 2615962 | RSR62-48D40   | input 4...32 V DC, output 40 A / 480 V AC (three-phase)    |
| 2615963 | RSR62-48A40   | input 90...280 V AC, output 40 A / 480 V AC (three-phase)  |
| 2615964 | RSR62-60D40   | input 4...32 V DC, output 40 A / 600 V AC (three-phase)    |
| 2615966 | RSR62-60A40   | input 90...280 V AC, output 40 A / 600 V AC (three-phase)  |
| 2615967 | RSR62-48D60   | input 4...32 V DC, output 60 A / 480 V AC (three-phase)    |
| 2615968 | RSR62-48A60   | input 90...280 V AC, output 60 A / 480 V AC (three-phase)  |
| 2615969 | RSR62-60D60   | input 4...32 V DC, output 60 A / 600 V AC (three-phase)    |
| 2615970 | RSR62-60A60   | input 90...280 V AC, output 60 A / 600 V AC (three-phase)  |
| 2615971 | RSR62-48D80   | input 4...32 V DC, output 80 A / 480 V AC (three-phase)    |
| 2615972 | RSR62-48A80   | input 90...280 V AC, output 80 A / 480 V AC (three-phase)  |
| 2615973 | RSR62-60D80   | input 4...32 V DC, output 80 A / 600 V AC (three-phase)    |
| 2615974 | RSR62-60A80   | input 90...280 V AC, output 80 A / 600 V AC (three-phase)  |

## Solid state relays

### ORDERING CODES

| Index   | Code           | Description  |
|---------|----------------|--|
| 2615975 | RSR62-60D25-R  | input 4...32 V DC, output 25 A / 600 V AC (three-phase)    |
| 2615976 | RSR62-60D40-R  | input 4...32 V DC, output 40 A / 600 V AC (three-phase)    |
| 2615977 | RSR62-60D60-R  | input 4...32 V DC, output 60 A / 600 V AC (three-phase)    |
| 2615978 | RSR62-60D80-R  | input 4...32 V DC, output 80 A / 600 V AC (three-phase)    |
| 2615979 | RSR72-24D10-H  | input 4...32 V DC, output 10 A / 240 V AC (single-phase)   |
| 2615985 | RSR72-24D20-H  | input 4...32 V DC, output 20 A / 240 V AC (single-phase)   |
| 2615986 | RSR72-24D30-H  | input 4...32 V DC, output 30 A / 240 V AC (single-phase)   |
| 2615987 | RSR72-24D40-H  | input 4...32 V DC, output 40 A / 240 V AC (single-phase)   |
| 2615988 | RSR72-24D75-H  | input 4...32 V DC, output 75 A / 240 V AC (single-phase)   |
| 2615989 | RSR72-48D10-H  | input 4...32 V DC, output 10 A / 480 V AC (single-phase)   |
| 2615990 | RSR72-48D20-H  | input 4...32 V DC, output 20 A / 480 V AC (single-phase)   |
| 2615991 | RSR72-48D30-H  | input 4...32 V DC, output 30 A / 480 V AC (single-phase)   |
| 2615992 | RSR72-48D40-H  | input 4...32 V DC, output 40 A / 480 V AC (single-phase)   |
| 2615993 | RSR72-48D75-H  | input 4...32 V DC, output 75 A / 480 V AC (single-phase)   |
| 2615994 | RSR72-28A10-H  | input 90...280 V AC, output 10 A / 240 V AC (single-phase) |
| 2615995 | RSR72-28A20-H  | input 90...280 V AC, output 20 A / 240 V AC (single-phase) |
| 2615996 | RSR72-28A30-H  | input 90...280 V AC, output 30 A / 240 V AC (single-phase) |
| 2615997 | RSR72-28A40-H  | input 90...280 V AC, output 40 A / 240 V AC (single-phase) |
| 2615998 | RSR72-28A75-H  | input 90...280 V AC, output 75 A / 240 V AC (single-phase) |
| 2615999 | RSR72-48A10-H  | input 90...280 V AC, output 10 A / 480 V AC (single-phase) |
| 2616000 | RSR72-48A20-H  | input 90...280 V AC, output 20 A / 480 V AC (single-phase) |
| 2616001 | RSR72-48A30-H  | input 90...280 V AC, output 30 A / 480 V AC (single-phase) |
| 2616002 | RSR72-48A40-H  | input 90...280 V AC, output 40 A / 480 V AC (single-phase) |
| 2616003 | RSR72-48A75-H  | input 90...280 V AC, output 75 A / 480 V AC (single-phase) |
| 2616004 | RSR72-48D10-RH | input 4...32 V DC, output 10 A / 480 V AC (single-phase)   |
| 2616005 | RSR72-48D20-RH | input 4...32 V DC, output 20 A / 480 V AC (single-phase)   |
| 2616006 | RSR72-48D30-RH | input 4...32 V DC, output 30 A / 480 V AC (single-phase)   |
| 2616007 | RSR72-48D40-RH | input 4...32 V DC, output 40 A / 480 V AC (single-phase)   |
| 2616008 | RSR72-60D20-H  | input 4...32 V DC, output 20 A / 600 V AC (single-phase)   |
| 2616009 | RSR72-60D30-H  | input 4...32 V DC, output 30 A / 600 V AC (single-phase)   |
| 2616010 | RSR72-60D40-H  | input 4...32 V DC, output 40 A / 600 V AC (single-phase)   |
| 2616011 | RSR72-60D75-H  | input 4...32 V DC, output 75 A / 600 V AC (single-phase)   |
| 2616012 | RSR72-60D20-RH | input 4...32 V DC, output 20 A / 600 V AC (single-phase)   |
| 2616013 | RSR72-60D30-RH | input 4...32 V DC, output 30 A / 600 V AC (single-phase)   |
| 2616014 | RSR72-60D40-RH | input 4...32 V DC, output 40 A / 600 V AC (single-phase)   |
| 2616015 | RSR72-60D75-RH | input 4...32 V DC, output 75 A / 600 V AC (single-phase)   |



# Installation contactors

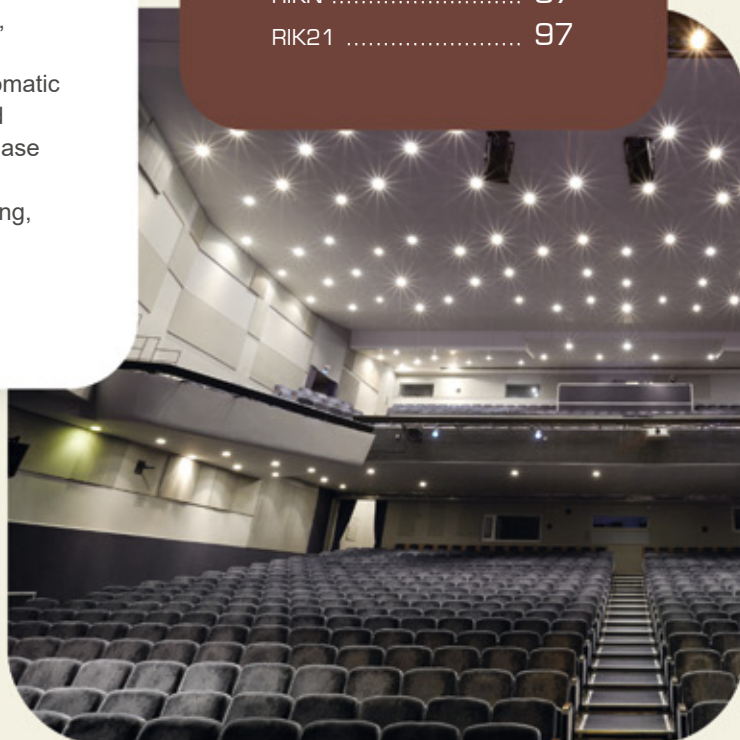


- In currents of outputs: 20 ... 63 A.
- Available versions:
  - in industrial covers: RIK21,
  - in modular covers: RIK20/25/40/63.
- Method of mounting: on 35 mm rail mount.

## Applications in low voltage systems:





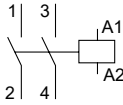
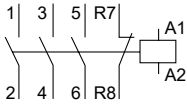
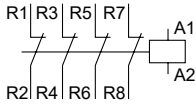
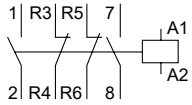
- are built in consumer devices operating in dwellings, business premises, hotels, hospitals, shopping centres, sport centres, production halls, warehouses, public places,
- for remote switching and automatic control of electric devices and equipment: 1-phase and 3-phase motors, different pumps, air-conditioning, electric heating, lighting.

|             |    |
|-------------|----|
| RIK20 ..... | 96 |
| RIK25 ..... | 96 |
| RIK40 ..... | 96 |
| RIK63 ..... | 96 |
| RIKN .....  | 97 |
| RIK21 ..... | 97 |





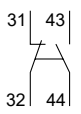
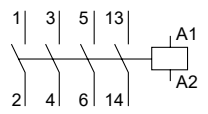




## Installation contactors

| Type                                     | RIK20   | RIK25  | RIK40  | RIK63  |
|--|---|--|--|--|
|  |                    |                           |                    |                           |
| <b>Output circuit</b>                    |   |  |  |  |
| Number and type of contacts              | 2 NO, 1 NO + 1 NC, 2 NC   | 4 NO, 3 NO + 1 NC, 2 NO + 2 NC   | 4 NO, 3 NO + 1 NC, 2 NO + 2 NC, 4 NC   | 4 NO, 3 NO + 1 NC, 2 NO + 2 NC   |
| Rated voltage AC                         | 230 V   | 400 V  | 400 V  | 400 V  |
| Rated thermal current                    | 20 A  | 25 A   | 40 A   | 63 A   |
| Rated load AC1 / AC7a                    | 20 A  | 25 A   | 40 A   | 63 A   |
| Rated load AC3 / AC7b                    | 9 A / 6 A (NO/NC)   | 8,5 A  | 22 A   | 30 A   |
| DC1                                      | 20 A / 24 V DC  | 25 A / 24 V DC   | 40 A / 24 V DC   | 63 A / 24 V DC   |
| DC1                                      | 0,6 A / 220 V DC  | 0,6 A / 220 V DC   | 1,2 A / 220 V DC   | 1,2 A / 220 V DC   |
| DC3                                      | 10 A / 24 V DC  | 15 A / 24 V DC   | 22 A / 24 V DC   | 25 A / 24 V DC   |
| DC3                                      | 0,1 A / 220 V DC  | 0,2 A / 220 V DC   | 0,3 A / 220 V DC   | 0,3 A / 220 V DC   |
| DC5                                      | 10 A / 24 V DC  | 15 A / 24 V DC   | 20 A / 24 V DC   | 25 A / 24 V DC   |
| DC5                                      | 0,06 A / 220 V DC   | 0,1 A / 220 V DC   | 0,2 A / 220 V DC   | 0,2 A / 220 V DC   |
| Motor load AC1 / AC7a                    | 20 A  | 25 A   | 40 A   | 63 A   |
| Motor load AC3 / AC7b                    | 1-phase, 230 V: 1,3 kW<br>1-phase, 230 V:<br>0,75 kW (NO/NC)  | 1-phase, 230 V: 1,3 kW Ⓜ<br>3-phase, 230 V: 2,2 kW<br>3-phase, 400 V: 4 kW                                 | 1-phase, 230 V: 3,7 kW Ⓜ<br>3-phase, 230 V: 5,5 kW<br>3-phase, 400 V: 11 kW                          | 1-phase, 230 V: 5 kW Ⓜ<br>3-phase, 230 V: 8,5 kW<br>3-phase, 400 V: 15 kW                                    |
| Switching of capacitors AC6b             | 30 µF   | 36 µF  | 220 µF   | 330 µF   |
| <b>Input circuit</b>                     |   |  |  |  |
| Control voltage AC / DC                  | 24, 230 V Ⓢ   | 24, 230 V Ⓢ  | 24, 230 V Ⓢ  | 24, 230 V Ⓢ  |
| Range of voltage / rated frequency       | 0,85...1,1 U <sub>c</sub> / AC: 50/60 Hz Ⓢ  | 0,85...1,1 U <sub>c</sub> / AC: 50/60 Hz Ⓢ   | 0,85...1,1 U <sub>c</sub> / AC: 50/60 Hz   | 0,85...1,1 U <sub>c</sub> / AC: 50/60 Hz   |
| <b>Insulation</b>                        |   |  |  |  |
| Insulation rated voltage                 | 230 V AC  | 440 V AC   | 440 V AC   | 440 V AC   |
| Rated surge voltage                      | 4 000 V   | 4 000 V  | 4 000 V  | 4 000 V  |
| <b>General data</b>                      |   |  |  |  |
| Dimensions mm                            | 85 x 17,5 x 65  | 85 x 35 x 65   | 84 x 53,5 x 65,5   | 84 x 53,5 x 65,5   |
| Protection category                      | IP 20 (EN 60529)  | IP 20 (EN 60529)   | IP 20 (EN 60529)   | IP 20 (EN 60529)   |
| Connection diagrams                      | <br>version 2 NO | <br>version 3 NO + 1 NC | <br>version 4 NC | <br>version 2 NO + 2 NC |
| Indicator                                | LED   | LED  | LED  | LED  |
| Recognitions, certifications, directives | CE<br>RoHS  | CE<br>RoHS   | CE<br>RoHS   | CE<br>RoHS   |



# Installation contactors

| RIKN  | RIK21  |
|---|--|
| auxiliary contacts ⑥  |  |
|    |   |
| 2 NO, 1 NO + 1 NC   | 3 NO + 1 NO (auxiliary),<br>3 NO + 1 NC (auxiliary)  |
| 230, 400 V  | 400 V  |
| 6 A   | 20 A   |
|   | 20 A<br>5 A<br>20 A / 24 V DC<br>0,5 A / 220 V DC<br>10 A / 24 V DC<br>0,1 A / 220 V DC<br>10 A / 24 V DC<br>0,06 A / 220 V DC |
|   | 20 A   |
|   | 1-phase, 230 V: 0,37 kW<br>3-phase, 230 V: 1,1 kW<br>3-phase, 400 V: 2,2 kW  |
|   | 36 μF  |
|   | 24, 230 V  |
|   | 0,85...1,1 U <sub>c</sub> /<br>AC: 50/60 Hz  |
| 500 V AC  | 415 V AC   |
| 4 000 V   | 4 000 V  |
| 84 x 9 x 60   | 59,5 x 35 x 57   |
| IP 20 (EN 60529)  | IP 20 (EN 60529)   |
|  |   |
| version 1 NO + 1 NC   | version 3 NO + 1 NO  |
|  |   |

- ① The data for 1 pole; data for 2,3,4 poles connected in series - see [www.relpol.com.pl](http://www.relpol.com.pl)
- ② The data for 1-phase power are valid for contactors RIK...-22 (2 NO + 2 NC)
- ③ RIK20, RIK25, RIK40, RIK63: contactors with a varistor for overvoltage protection and a rectifier enable DC and AC voltage control
- ④ RIK20, RIK25: contactors can be controlled by AC voltage with frequency 40...400 Hz
- ⑤ RIKN: additional auxiliary contacts for RIK25, RIK40, RIK63 (increase by 9 mm the width of contactors)



## Installation contactors

### ORDERING CODES

| Index   | Code         | Description   |
|---------|--------------|---|
| 2608178 | RIK20-20-24  | 2-pole (contacts 2 NO, 20 A), coil voltage 24 V AC/DC         |
| 2611893 | RIK20-20-230 | 2-pole (contacts 2 NO, 20 A), coil voltage 230 V AC/DC        |
| 2608196 | RIK20-11-24  | 2-pole (contacts 1 NO + 1 NC, 20 A), coil voltage 24 V AC/DC  |
| 2608212 | RIK20-11-230 | 2-pole (contacts 1 NO + 1 NC, 20 A), coil voltage 230 V AC/DC |
| 2608179 | RIK20-02-24  | 2-pole (contacts 2 NC, 20 A), coil voltage 24 V AC/DC         |
| 2614062 | RIK20-02-230 | 2-pole (contacts 2 NC, 20 A), coil voltage 230 V AC/DC        |
| 2608197 | RIK25-40-24  | 4-pole (contacts 4 NO, 25 A), coil voltage 24 V AC/DC         |
| 2608213 | RIK25-40-230 | 4-pole (contacts 4 NO, 25 A), coil voltage 230 V AC/DC        |
| 2608198 | RIK25-31-24  | 4-pole (contacts 3 NO + 1 NC, 25 A), coil voltage 24 V AC/DC  |
| 2613932 | RIK25-31-230 | 4-pole (contacts 3 NO + 1 NC, 25 A), coil voltage 230 V AC/DC |
| 2608199 | RIK25-22-24  | 4-pole (contacts 2 NO + 2 NC, 25 A), coil voltage 24 V AC/DC  |
| 2611892 | RIK25-22-230 | 4-pole (contacts 2 NO + 2 NC, 25 A), coil voltage 230 V AC/DC |
| 2608202 | RIK40-40-24  | 4-pole (contacts 4 NO, 40 A), coil voltage 24 V AC/DC         |
| 2608217 | RIK40-40-230 | 4-pole (contacts 4 NO, 40 A), coil voltage 230 V AC/DC        |
| 2608203 | RIK40-31-24  | 4-pole (contacts 3 NO + 1 NC, 40 A), coil voltage 24 V AC/DC  |
| 2608218 | RIK40-31-230 | 4-pole (contacts 3 NO + 1 NC, 40 A), coil voltage 230 V AC/DC |
| 2608863 | RIK40-22-24  | 4-pole (contacts 2 NO + 2 NC, 40 A), coil voltage 24 V AC/DC  |
| 2608866 | RIK40-22-230 | 4-pole (contacts 2 NO + 2 NC, 40 A), coil voltage 230 V AC/DC |
| 2608864 | RIK40-04-24  | 4-pole (contacts 4 NC, 40 A), coil voltage 24 V AC/DC         |
| 2608867 | RIK40-04-230 | 4-pole (contacts 4 NC, 40 A), coil voltage 230 V AC/DC        |
| 2608204 | RIK63-40-24  | 4-pole (contacts 4 NO, 63 A), coil voltage 24 V AC/DC         |
| 2608219 | RIK63-40-230 | 4-pole (contacts 4 NO, 63 A), coil voltage 230 V AC/DC        |
| 2608205 | RIK63-31-24  | 4-pole (contacts 3 NO + 1 NC, 63 A), coil voltage 24 V AC/DC  |
| 2608220 | RIK63-31-230 | 4-pole (contacts 3 NO + 1 NC, 63 A), coil voltage 230 V AC/DC |
| 2608865 | RIK63-22-24  | 4-pole (contacts 2 NO + 2 NC, 63 A), coil voltage 24 V AC/DC  |
| 2608868 | RIK63-22-230 | 4-pole (contacts 2 NO + 2 NC, 63 A), coil voltage 230 V AC/DC |
| 2614895 | RIKN20       | auxiliary contact (contacts 2 NO, 6 A)                        |
| 2614896 | RIKN11       | auxiliary contact (contacts 1 NO + 1 NC, 6 A)                 |

### ORDERING CODES

| Index   | Code         | Description  |
|---------|--------------|--|
| 2608186 | RIK21-10-24  | 3-pole (contacts 3 NO + 1 NO, 20 A), coil voltage 24 V AC  |
| 2608208 | RIK21-10-230 | 3-pole (contacts 3 NO + 1 NO, 20 A), coil voltage 230 V AC |
| 2608177 | RIK21-01-24  | 3-pole (contacts 3 NO + 1 NC, 20 A), coil voltage 24 V AC  |
| 2608209 | RIK21-01-230 | 3-pole (contacts 3 NO + 1 NC, 20 A), coil voltage 230 V AC |

# Power supplies

|                   |     |
|-------------------|-----|
| RZI10-12-M .....  | 100 |
| RZI10-24-M .....  | 100 |
| RZI30-12-M .....  | 100 |
| RZI30-24-M .....  | 100 |
| RZI60-12-M .....  | 101 |
| RZI60-24-M .....  | 101 |
| RZI100-24-M ..... | 101 |
| RZI60-24-P .....  | 101 |
| RZI120-24-P ..... | 101 |
| RZI240-24-P ..... | 102 |
| RZI480-24-P ..... | 102 |
| RZI-20R .....     | 102 |
| RZI-40R .....     | 102 |
| RZI-20B .....     | 103 |
| RZI-40B .....     | 103 |
| RZI-40UPS .....   | 103 |



- $I_n$  currents of outputs: 0,42 ... 40 A.
- Available versions:
  - in modular covers: RZI...M series,
  - in industrial covers: RZI...P series, RZI...R series, RZI...B series, RZI...UPS.
- Methods of mounting:
  - on 35 mm rail mount,
  - on panel mounting - depending on the type of power supply.





## Applications:

- power supplies in modular covers RZI...M: in industrial automation, for supplying household appliances and building automation,
- professional power supplies for industry RZI...P: in industrial automation, for supplying packing machines, construction machinery, weaving machines, etc.,
- redundancy modules RZI...R: for parallel connection of power supplies RZI...P in order to increase power, reliable supply in high efficiency areas, in process engineering and power engineering,
- buffer modules RZI...B: cooperation with power supplies RZI...P in industrial automation, to maintain voltage at momentary supply failures,
- UPS modules RZI...UPS: for control cabinets, adopted to operation in power systems up to 960 W, entire monitoring of the system (three relay outputs).

 **relpol**® S.A.



## Power supplies

| Type  |    | RZI10-12-M  | RZI10-24-M  | RZI30-12-M  | RZI30-24-M  |
|---|----|---|---|---|---|
|   |    |  |  |  |  |
| Output circuit                              |    |   |   |   |   |
| Rated output power                          |    | 10 W  | 10 W  | 25 W  | 30 W  |
| Rated voltage                               | DC | 12 V  | 24 V  | 12 V  | 24 V  |
| Output current                              |    | 0,83 A  | 0,42 A  | 2,1 A   | 1,25 A  |
| Input circuit                               |    |   |   |   |   |
| Rated voltage                               | AC | 100...240 V   | 100...240 V   | 100...240 V   | 100...240 V   |
|   | DC | 125...375 V   | 125...375 V   | 125...375 V   | 125...375 V   |
| Protections                                 |    |   |   |   |   |
| Overvoltage                                 |    | < 17,4 V ❶  | < 34,8 V ❶  | < 17,4 V ❶  | < 34,8 V ❶  |
| Overload / overcurrent                      |    | > 105% I <sub>n</sub> ❷   | > 102...108% I <sub>n</sub> ❸<br>> 120% I <sub>n</sub> ❷                          | > 130% I <sub>n</sub> ❸   | > 130% I <sub>n</sub> ❸   |
| Short circuit                               |    | ❷   | ❷   | ❷   | ❷   |
| Over temperature                            |    | > 75 °C ❶   | > 75 °C ❶   | > 75 °C ❶   | > 75 °C ❶   |
| Against shock ❹                             |    | Class II  | Class II  | Class II  | Class II  |
| Protection category                         |    | IP 20 (EN 60529)  | IP 20 (EN 60529)  | IP 20 (EN 60529)  | IP 20 (EN 60529)  |
| EMC immunity                                |    |   |   |   |   |
| EMC (emissions) ❺                           |    | Class B   | Class B   | Class A   | Class A   |
| Electrostatic discharge<br>(EN 61000-4-2) ❻ |    | level 3, criteria A<br>air: 8 kV<br>contact: 4 kV                                 | level 3, criteria A<br>air: 8 kV<br>contact: 4 kV                                 | level 3, criteria A<br>air: 8 kV<br>contact: 4 kV                                   | level 3, criteria A<br>air: 8 kV<br>contact: 4 kV                                   |
| Radiated field<br>(EN 61000-4-3) ❻          |    | level 2, criteria A<br>80 MHz...1 GHz<br>intensity: 3 V/M                         | level 2, criteria A<br>80 MHz...1 GHz<br>intensity: 3 V/M                         | level 2, criteria A<br>80 MHz...1 GHz<br>intensity: 3 V/M                           | level 2, criteria A<br>80 MHz...1 GHz<br>intensity: 3 V/M                           |
| Fast transient / burst<br>(EN 61000-4-4) ❻  |    | level 3, criteria A<br>1 kV   | level 3, criteria A<br>1 kV   | level 3, criteria A<br>1 kV   | level 3, criteria A<br>1 kV   |
| Surge<br>(EN 61000-4-5) ❻ ❼                 |    | level 3, criteria A<br>common: 2 kV<br>differential: 1 kV                         | level 3, criteria A<br>common: 2 kV<br>differential: 1 kV                         | level 3, criteria A<br>common: 2 kV<br>differential: 1 kV                           | level 3, criteria A<br>common: 2 kV<br>differential: 1 kV                           |
| Conducted<br>(EN 61000-4-6) ❻               |    | level 2, criteria A<br>150 kHz...80 MHz<br>3 Vrms                                 | level 2, criteria A<br>150 kHz...80 MHz<br>3 Vrms                                 | level 2, criteria A<br>150 kHz...80 MHz<br>3 Vrms                                   | level 2, criteria A<br>150 kHz...80 MHz<br>3 Vrms                                   |
| Magnetic fields<br>(EN 61000-4-8) ❻         |    | criteria A<br>1 A/m   | criteria A<br>1 A/m   | criteria A<br>1 A/m   | criteria A<br>1 A/m   |
| Voltage dips<br>(EN 61000-4-11)             |    | > 95%<br>0,5 cycle (10 ms)  | > 95%<br>0,5 cycle (10 ms)  | > 95%<br>0,5 cycle (10 ms)  | > 95%<br>0,5 cycle (10 ms)  |
| General data                                |    |   |   |   |   |
| Dimensions                                  | mm | 91 x 18 x 55,6  | 91 x 18 x 55,6  | 91 x 53 x 55,6  | 91 x 53 x 55,6  |
| Indicator                                   |    | LED green   | LED green   | LED green   | LED green   |
| Recognitions,<br>certifications, directives |    | <b>CE EAC</b><br>RoHS, Low Voltage  | <b>CE EAC</b><br>RoHS, Low Voltage  | <b>CE EAC</b><br>RoHS, Low Voltage  | <b>CE EAC</b><br>RoHS, Low Voltage  |

❶ Latch-off mode: disconnecting the output voltage, restore correct operation after restarting, auto-recovery when the fault is removed. ❷ Fold Forward mode: current rises, voltage drops. Class I: connection of PE protective wire is not required.

❸ Hiccup mode: non-latching,  
❹ Class II (double insulation),



## Power supplies





| RZI60-12-M  | RZI60-24-M  | RZI100-24-M   | RZI60-24-P  | RZI120-24-P   |
|---|---|---|---|---|
|  |  |  |  |  |
| 54 W  | 60 W  | 91,2 W  | 60 W  | 120 W   |
| 12 V  | 24 V  | 24 V  | 24 V  | 24 V  |
| 4,5 A   | 2,5 A   | 3,8 A   | 2,5 A   | 5 A   |
| 100...240 V   | 100...240 V   | 100...240 V   | 100...240 V   | 100...240 V   |
| 125...375 V   | 125...375 V   | 125...375 V   | 125...250 V   | 125...250 V   |
| < 17,4 V ①  | < 34,8 V ①  | < 34,8 V ①  | < 32 V ±10% ②   | < 32 V ±10% ②   |
| < 8 A ③   | > 110% I <sub>n</sub> ④   | > 102...108% I <sub>n</sub> ④   | > 150% I <sub>n</sub> ④   | > 150% I <sub>n</sub> ④   |
| ②   | ②   | ②   | ②   | ②   |
| > 75 °C ①   | > 75 °C ①   | > 75 °C ①   | < 80 °C ②   | < 80 °C ②   |
| Class II  | Class II  | Class II  | Class I   | Class I   |
| IP 20 (EN 60529)  | IP 20 (EN 60529)  | IP 20 (EN 60529)  | IP 20 (EN 60529)  | IP 20 (EN 60529)  |
| Class A   | Class A   | Class A   | Class B   | Class B   |
| level 3, criteria A<br>air: 8 kV<br>contact: 4 kV                                 | level 3, criteria A<br>air: 8 kV<br>contact: 4 kV                                 | level 3, criteria A<br>air: 8 kV<br>contact: 4 kV                                 | level 4, criteria A<br>air: 15 kV<br>contact: 8 kV                                  | level 4, criteria A<br>air: 15 kV<br>contact: 8 kV                                  |
| level 2, criteria A<br>80 MHz...1 GHz<br>intensity: 3 V/M                         | level 3, criteria A<br>80 MHz...1 GHz<br>intensity: 3 V/M                         | level 2, criteria A<br>80 MHz...1 GHz<br>intensity: 3 V/M                         | level 3, criteria A<br>80 MHz...1 GHz<br>intensity: 10 V/M                          | level 3, criteria A<br>80 MHz...1 GHz<br>intensity: 10 V/M                          |
| level 3, criteria A<br>1 kV   | level 3, criteria A<br>2 kV   | level 3, criteria A<br>1 kV   | level 3, criteria A<br>2 kV   | level 3, criteria A<br>2 kV   |
| level 3, criteria A<br>common: 2 kV<br>differential: 1 kV                         | level 3, criteria A<br>common: 2 kV<br>differential: 1 kV                         | level 3, criteria A<br>common: 2 kV<br>differential: 1 kV                         | level 3, criteria A<br>common: 2 kV<br>differential: 1 kV                           | level 3, criteria A<br>common: 2 kV<br>differential: 1 kV                           |
| level 2, criteria A<br>150 kHz...80 MHz<br>3 Vrms                                 | level 3, criteria A<br>150 kHz...80 MHz<br>3 Vrms                                 | level 2, criteria A<br>150 kHz...80 MHz<br>3 Vrms                                 | level 3, criteria A<br>150 kHz...80 MHz<br>10 Vrms                                  | level 3, criteria A<br>150 kHz...80 MHz<br>10 Vrms                                  |
| criteria A<br>1 A/m   | criteria A<br>1 A/m   | criteria A<br>1 A/m   | level 3, criteria A<br>3 A/m  | level 3, criteria A<br>30 A/m   |
| > 95%<br>0,5 cycle (10 ms)  | > 95%<br>0,5 cycle (10 ms)  | > 95%<br>0,5 cycle (10 ms)  | level 3, criteria A<br>100%<br>1 cycle (20 ms)                                      | level 3, criteria A<br>100%<br>1 cycle (20 ms)                                      |
| 91 x 71 x 55,6  | 91 x 71 x 55,6  | 91 x 89,9 x 55,6  | 121 x 32 x 125  | 121 x 50 x 123,1  |
| LED green   | LED green   | LED green   | LED green   | LED green   |
| <b>CE EAC</b><br>RoHS, Low Voltage  | <b>CE EAC</b><br>RoHS, Low Voltage  | <b>CE EAC</b><br>RoHS, Low Voltage  | <b>CE EAC</b><br>RoHS, Low Voltage  | <b>CE EAC</b><br>RoHS, Low Voltage  |

⑥ CISPR 32, EN 55032, EN 55011, FCC Title 47 - Class B: product meets a regulations about the limits of EMC interferences in a residential environment; Class A: product is not intended to be installed in a residential environment.

③ Criteria A: normal performance within the specification limits. ④ Common mode: asymmetrical (line to earth); differential mode: symmetrical (line to line).






## Power supplies

| Type                                     |    | RZI240-24-P   | RZI480-24-P   | RZI-20R   | RZI-40R   |
|--|----|---|---|---|---|
|  |    |  |  |  |  |
| <b>Output circuit</b>                    |    |   |   |   |   |
| Rated output power                       |    | 240 W   | 480 W   |   |   |
| Rated voltage                            | DC | 24 V  | 24 V  | $V_{in} - 0,65 V$   | $V_{in} - 0,65 V$   |
| Output current                           |    | 10 A  | 20 A  | 20 A (25 A Ⓣ)   | 40 A (50 A Ⓣ)   |
| <b>Input circuit</b>                     |    |   |   |   |   |
| Rated voltage                            | AC | 100...240 V   | 100...240 V   |   |   |
|  | DC | 125...250 V   | 125...250 V   | 22...60 V   | 22...60 V   |
| <b>Protections</b>                       |    |   |   |   |   |
| Overvoltage                              |    | $< 32 V \pm 10\% \text{ Ⓣ}$   | $< 32 V \pm 10\% \text{ Ⓣ}$   |   |   |
| Overload / overcurrent                   |    | $> 150\% I_n \text{ Ⓣ}$   | $> 200\% I_n \text{ Ⓣ}$   | $< 25 A$  | $< 50 A$  |
| Short circuit                            |    | Ⓣ   | Ⓣ   | $< 25 A$  | $< 50 A$  |
| Over temperature                         |    | $< 80 \text{ }^\circ\text{C} \text{ Ⓣ}$   | $< 80 \text{ }^\circ\text{C} \text{ Ⓣ}$   |   |   |
| Against shock Ⓣ                          |    | Class I   | Class I   |   |   |
| Protection category                      |    | IP 20 (EN 60529)  | IP 20 (EN 60529)  | IP 20 (EN 60529)  | IP 20 (EN 60529)  |
| <b>EMC immunity</b>                      |    |   |   |   |   |
| EMC (emissions) Ⓣ                        |    | Class B   | Class B   | Class B   | Class B   |
| Electrostatic discharge (EN 61000-4-2) Ⓣ |    | level 4, criteria A<br>air: 15 kV<br>contact: 8 kV                                | level 4, criteria A<br>air: 15 kV<br>contact: 8 kV                                | level 4, criteria A<br>air: 15 kV<br>contact: 8 kV                                  | level 4, criteria A<br>air: 15 kV<br>contact: 8 kV                                  |
| Radiated field (EN 61000-4-3) Ⓣ          |    | level 3, criteria A<br>80 MHz...1 GHz<br>intensity: 10 V/M                        | level 3, criteria A<br>80 MHz...1 GHz<br>intensity: 10 V/M                        | level 3, criteria A<br>80 MHz...1 GHz<br>intensity: 10 V/M                          | level 3, criteria A<br>80 MHz...1 GHz<br>intensity: 10 V/M                          |
| Fast transient / burst (EN 61000-4-4) Ⓣ  |    | level 3, criteria A<br>2 kV   | level 3, criteria A<br>2 kV   | level 3, criteria A<br>2 kV   | level 3, criteria A<br>2 kV   |
| Surge (EN 61000-4-5) Ⓣ Ⓣ                 |    | level 3, criteria A<br>common: 2 kV<br>differential: 1 kV                         | level 3, criteria A<br>common: 2 kV<br>differential: 1 kV                         | level 3, criteria A<br>common: 2 kV<br>differential: 1 kV                           | level 3, criteria A<br>common: 2 kV<br>differential: 1 kV                           |
| Conducted (EN 61000-4-6) Ⓣ               |    | level 3, criteria A<br>150 kHz...80 MHz<br>10 Vrms                                | level 3, criteria A<br>150 kHz...80 MHz<br>10 Vrms                                | level 3, criteria A<br>150 kHz...80 MHz<br>10 Vrms                                  | level 3, criteria A<br>150 kHz...80 MHz<br>10 Vrms                                  |
| Magnetic fields (EN 61000-4-8) Ⓣ         |    | level 3, criteria A<br>30 A/m   | level 3, criteria A<br>30 A/m   | criteria A<br>10 A/m  | criteria A<br>10 A/m  |
| Voltage dips (EN 61000-4-11)             |    | level 3, criteria A<br>100%<br>1 cycle (20 ms)                                    | level 3, criteria A<br>100%<br>1 cycle (20 ms)                                    | level 3, criteria A<br>100%<br>1 cycle (20 ms)                                      | level 3, criteria A<br>100%<br>1 cycle (20 ms)                                      |
| <b>General data</b>                      |    |   |   |   |   |
| Dimensions                               | mm | 121 x 85 x 124,1  | 121 x 144 x 118,6   | 121 x 50 x 122,1  | 121 x 50 x 122,1  |
| Indicator                                |    | LED green   | LED green   | LED green   | LED green   |
| Recognitions, certifications, directives |    | <b>CE EAC</b><br>RoHS, Low Voltage  | <b>CE EAC</b><br>RoHS, Low Voltage  | <b>CE EAC</b><br>RoHS, Low Voltage  | <b>CE EAC</b><br>RoHS, Low Voltage  |





## Power supplies

| RZI-20B   | RZI-40B   | RZI-40UPS   |
|---|---|---|
|  |  |  |
| 24 V ①  | 24 V ①  | 24 V ①  |
| 20 A  | 40 A  | 40 A  |
| 22,8...28,8 V   | 22,8...28,8 V   | 24...28 V   |
| 32 V ±10%   | max. 35 V   |   |
| max. 30 A   | > 120% I <sub>n</sub> ①   | 42...52 A ①   |
| ①   | ①   | ①   |
|   |   | < 90 °C ①   |
| Class I   | Class I   | Class III   |
| IP 20 (EN 60529)  | IP 20 (EN 60529)  | IP 20 (EN 60529)  |
| Class B   | Class B   | Class B   |
| level 4, criteria A<br>air: 15 kV<br>contact: 8 kV                                | level 4, criteria A<br>air: 15 kV<br>contact: 8 kV                                | level 4, criteria A<br>air: 15 kV<br>contact: 8 kV                                |
| level 3, criteria A<br>80 MHz...1 GHz<br>intensity: 10 V/M                        | level 3, criteria A<br>80 MHz...1 GHz<br>intensity: 10 V/M                        | level 3, criteria A<br>80 MHz...1 GHz<br>intensity: 10 V/M                        |
| level 3, criteria A<br>2 kV   |   | level 3, criteria A<br>2 kV ⑩   |
| level 3, criteria A<br>common: 2 kV<br>differential: 1 kV                         |   | level 3, criteria A<br>0,5 kV ⑩   |
| level 3, criteria A<br>150 kHz...80 MHz<br>10 Vrms                                | level 3, criteria A<br>150 kHz...80 MHz<br>10 Vrms                                | level 3, criteria A<br>150 kHz...80 MHz<br>10 Vrms                                |
| criteria A<br>10 A/m  | criteria A<br>30 A/m  | criteria A<br>10 A/m  |
| level 3, criteria A<br>100%<br>1 cycle (20 ms)                                    |   |   |
| 121 x 70 x 120,1  | 121 x 70 x 120,1  | 121 x 50 x 117,3  |
| LED green   | LED green   | LED three-colour  |
| <b>CE ENEC</b><br>RoHS, Low Voltage   | <b>CE ENEC</b><br>RoHS, Low Voltage   | <b>CE ENEC</b><br>RoHS, Low Voltage   |

① Latch-off mode: disconnecting the output voltage, restore correct operation after restarting. ② Hiccup mode: non-latching, auto-recovery when the fault is removed. ③ Fold Forward mode: current rises, voltage drops. ④ Class II (double insulation), Class I: connection of PE protective wire is not required. ⑤ CISPR 32, EN 55032, EN 55011, FCC Title 47 - Class B: product meets a regulations about the limits of EMC interferences in a residential environment; Class A: product is not intended to be installed in a residential environment. ⑥ Criteria A: normal performance within the specification limits. ⑦ Common mode: asymmetrical (line to earth); differential mode: symmetrical (line to line). ⑧ Maximum current value (max. output current should be limited by power supplies working in parallel). ⑨ Depends on the input voltage. ⑩ Input terminals.



# Power supplies

## ORDERING CODES

| Index   | Code        | Description  |
|---------|-------------|--|
| 2615392 | RZI10-12-M  | power 10 W, output 0,83 A / 12 V DC, universal supply voltage 90...264 V AC or 125...375 V DC  |
| 2615393 | RZI10-24-M  | power 10 W, output 0,42 A / 24 V DC, universal supply voltage 90...264 V AC or 125...375 V DC  |
| 2615394 | RZI30-12-M  | power 30 W, output 2,1 A / 12 V DC, universal supply voltage 90...264 V AC or 125...375 V DC   |
| 2615395 | RZI30-24-M  | power 30 W, output 1,25 A / 24 V DC, universal supply voltage 90...264 V AC or 125...375 V DC  |
| 2615398 | RZI60-12-M  | power 54 W, output 4,5 A / 12 V DC, universal supply voltage 90...264 V AC or 125...375 V DC   |
| 2615399 | RZI60-24-M  | power 60 W, output 2,5 A / 24 V DC, universal supply voltage 90...264 V AC or 125...375 V DC   |
| 2615400 | RZI100-24-M | power 91,2 W, output 3,8 A / 24 V DC, universal supply voltage 90...264 V AC or 125...375 V DC |

## ORDERING CODES

| Index   | Code        | Description  |
|---------|-------------|--|
| 2615401 | RZI60-24-P  | power 60 W, output 2,5 A / 24 V DC, universal supply voltage 85...264 V AC or 120...375 V DC |
| 2615402 | RZI120-24-P | power 120 W, output 5 A / 24 V DC, universal supply voltage 85...264 V AC or 120...375 V DC  |
| 2615403 | RZI240-24-P | power 240 W, output 10 A / 24 V DC, universal supply voltage 85...264 V AC or 120...375 V DC |
| 2615404 | RZI480-24-P | power 480 W, output 20 A / 24 V DC, universal supply voltage 85...264 V AC or 120...375 V DC |
| 2615616 | RZI-20R     | redundancy module, output 20 A / 0,65 V, supply voltage 22...60 V DC                         |
| 2615617 | RZI-40R     | redundancy module, output 40 A / 0,65 V, supply voltage 22...60 V DC                         |
| 2615614 | RZI-20B     | buffer module, output 20 A / 24 V, supply voltage 22,8...28,8 V DC                           |
| 2615615 | RZI-40B     | buffer module, output 40 A / 24 V, supply voltage 22,8...28,8 V DC                           |
| 2615618 | RZI-40UPS   | UPS module, output 40 A / 24 V, supply voltage 24...28 V DC                                  |

### PRECAUTIONS:

1. Ensure that the parameters of the product described in its specification provide a safety margin for the appropriate operation of the device or system and never use the product in circumstances which exceed the parameters of the product. 2. Never touch any live parts of the device. 3. Ensure that the product has been connected correctly. An incorrect connection may cause malfunction, excessive heating or risk of fire. 4. In case of any risk of any serious material loss or death or injuries of humans or animals, the devices or systems shall be designed so to equip them with double safety system to guarantee their reliable operation.

You have not found the relay you wanted? The catalog does not show the information about the switching capacity for the type of load you are looking for? Detailed contact data is presented on the last page of the catalog and at [www.repol.com.pl](http://www.repol.com.pl)

# Declaration of conformity RoHS

RoHS  
RoHS

Relpol S.A. hereby confirms that relays and plug-in sockets for relays supplied by our company meet the requirements laid down in **Directive 2011/65/EU** of the European Parliament and of the Council of 8 June 2011 on the restriction of use of certain hazardous substances in electrical and electronic equipment and **Commission Delegated Directive (EU) 2015/863** of 31 March 2015 amending Annex II to Directive 2011/65/EU of the European Parliament and of the Council as regards the list of restricted substances.

Date: 07.05.2019



Quality and Environmental Management  
Department Director  
Sylwia Sochoń-Miezio



 **relpol**®  
S.A.

[www.relpol.com.pl](http://www.relpol.com.pl)



## The offer of Relpol S.A. includes the following products:

### subminiature - signal relays

rated switching capacity: from 0,5 A to 3 A, coil voltage range: from 3 V to 48 V DC

### miniature relays

rated switching capacity: from 5 A to 20 A

### industrial relays

rated switching capacity: from 5 A to 80 A, mounting: to plug-in sockets on 35 mm rail mount acc. to EN 60715 or on panel mounting, for PCB

### interface relays

rated switching capacity: from 0,05 A to 16 A, number of contacts: 1, 2, 3, 4

### relays for railroad industry

for rail-vehicles and railroad tractions,

rated switching capacity: from 6 A to 16 A, number of contacts: 1, 2, 3, 4

### plug-in sockets for relays

for PCB, for 35 mm rail mount acc. to EN 60715 or on panel mounting

### programmable relays

versions: 8 inputs / 4 outputs, 16 inputs / 8 outputs, with LCD display, without display, supply voltages: 12, 24, 220 V DC, 230 V AC, programming: LAD, STL, LED indicators of the relay and input / output status

### installation relays

rated switching capacity: 8 A, 16 A, number of contacts: 1, 2, 3

### bistable - impulse relays

type "ON-OFF"; rated switching capacity: 8 A, 16 A, number of contacts: 1, 2

### time relays

single- and multifunction time relays, wide range of time adjustments

### monitoring relays

voltage, current, motor temperature monitoring

### signal lamps

single-phase 130...260 V AC/DC (one LED), three-phase 3(N)~ 400/230 V AC (three LEDs)

### solid state relays

rated load currents: from 0,1 A to 80 A, zero-crossing or random-on switching

### installation contactors

rated switching power: from 2,2 kW to 15 kW (at 400 V AC3)

### power supplies

for automation systems, output circuit: 12, 24 V DC, rated currents: from 0,42 A to 40 A

### overvoltage arresters

classes I, II and III, available with changeover signal contact

Due to the permanent development policy, Relpol S.A. reserves the right to introduce changes of data and characteristics of the products. The devices shall be operated by skilled personnel in accordance with the regulations in force pertaining to electrical systems. The technical data are of informational nature. Thus, Relpol S.A. does not accept any liability for inappropriate use of the presented products.

#### PRECAUTIONS

1. Ensure that the parameters of the product described in its specification provide a safety margin for the appropriate operation of the device or system and never use the product in circumstances which exceed the parameters of the product.
2. Never touch any live parts of the device.
3. Ensure that the product has been connected correctly. An incorrect connection may cause malfunction, excessive heating or risk of fire.
4. In case of any risk of any serious material loss or death or injuries of humans or animals, the devices or systems shall be designed so to equip them with double safety system to guarantee their reliable operation.

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