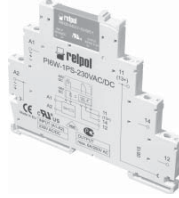


RM699BV + PI6W-1PS-...



RSR30 + PI6W-1PS-...



- Interface relay **PIR6W-1PS-...** consists of:
 - universal socket with electronic **PI6W-1PS-...** with screw terminals,
 - changeover relay **RM699BV**, rated load 6 A / 230 V (AC1) ① or solid state relay **RSR30** ①
- 35 mm rail mount acc. to PN-EN 60715 • May be linked with interconnection strip type **ZG20** • Equipped in LED green • Accessories: description plates **PI6W-1246** • Recognitions, certifications, directives:



Output circuit (RM699BV) - contact data ①

| | | |
|--|---|--|
| Number and type of contacts (code of output) | 1 C/O (R) | 1 C/O (R-01) |
| Contact material | AgSnO₂ | AgSnO ₂ /Au 3 μm ② |
| Rated / max. switching voltage | AC 230 V / 400 V | - / 30 V ② |
| Max. switching voltage | DC 125 V | 36 V ② |
| Min. switching voltage | AC/DC 10 V | 5 V |
| Rated load | AC1 6 A / 250 V AC DC1 6 A / 24 V DC | 0,05 A / 30 V AC ② 0,05 A / 36 V DC ② |
| Min. switching current | 100 mA | 10 mA |
| Max. inrush current | 10 A 20 ms | 0,1 A 20 ms ② |
| Rated current | 6 A | 0,05 A ② |
| Max. breaking capacity | AC1 1 500 VA | 1,2 VA ② |
| Min. breaking capacity | 1 W | 0,05 W |
| Contact resistance | ≤ 100 mΩ 100 mA, 24 V | ≤ 30 mΩ 10 mA, 5 V |
| Max. operating frequency | | |
| • at rated load | AC1 360 cycles/hour | |
| • no load | 72 000 cycles/hour | |

Output circuit (RSR30) - output data ①

| Type of output (code of output) | Triac (T) max. 2 A | Transistor (C) max. 1 A | Transistor (O) max. 2 A |
|--|-----------------------|----------------------------|----------------------------|
| Number and type of outputs | 1 NO | 1 NO | 1 NO |
| Rated voltage | 240 V AC | 48 V DC | 24 V DC |
| Max. output voltage | 280 V AC | 60 V DC | 32 V DC |
| Min. output voltage | 12 V AC | 1,5 V DC | 1,5 V DC |
| Rated continuous output current | AC1 1 A DC1 1 A | 1 A | 2 A |
| Min. making capacity current | 50 mA | 1 mA | 1 mA |
| Max. off-state leakage current (rest condition) | 1,5 mA | 1 mA | 1 mA |
| Max. on-state voltage drop on the connection (operating state) | 1,2 V | 0,4 V | 0,24 V |
| Operating switching frequency | | 10 Hz | 10 Hz |

Input control circuit

| | |
|-----------------------------------|---|
| Rated voltage | DC 6-12- 24 -36-48-60 V AC: 50/60 Hz AC/DC 24-42-115-230 V |
| Must release voltage | AC: ≥ 0,2 U _n DC: ≥ 0,1 U _n |
| Operating range of supply voltage | 0,8...1,2 U _n 0,85...1,2 U _n 6 V DC |
| Must operate voltage | ≤ 0,8 U _n ≤ 0,85 U _n 6 V DC |
| Rated power consumption | DC 0,2...0,5 W AC/DC 0,5...1,2 VA / 0,4...1,2 W |

Insulation according to PN-EN 60664-1

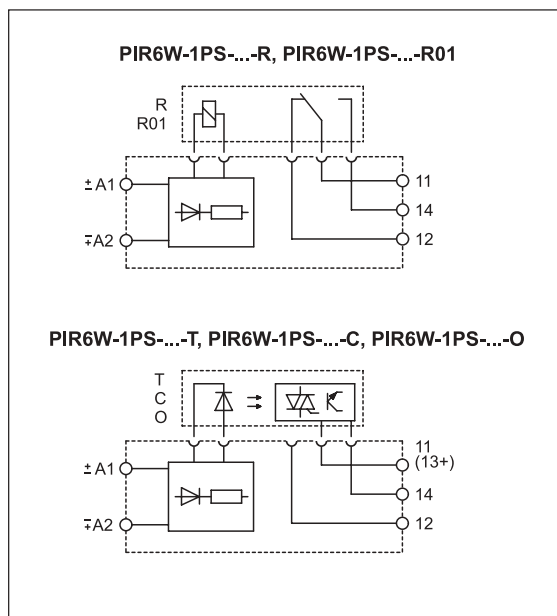
| | |
|-------------------------------|---|
| Insulation rated voltage | 250 V AC |
| Rated surge voltage | 4 000 V 1,2 / 50 μs |
| Overtoltage category | III |
| Insulation pollution degree | 3 |
| Dielectric strength | <ul style="list-style-type: none"> • input - output 4 000 V AC 50/60 Hz, 1 min., type of insulation: reinforced • input - output 6 000 V 1,2 / 50 μs, surge voltage • mass - input, output 2 500 V AC 50/60 Hz, 1 min. • contact clearance 1 000 V AC 50/60 Hz, 1 min., output R and R-01, type of clearance: micro-disconnection |
| Input - output distance | |
| • clearance \ creepage | ≥ 6 mm \ ≥ 8 mm |
| Mass - input, output distance | |
| • clearance \ creepage | ≥ 3 mm \ ≥ 3,6 mm |

The data in bold type pertain to the standard versions of the relays. ① Characteristics of the contact capacity of relays **PIR6W-1PS-...** with **RM699BV** - see page 48; **PIR6W-1PS-...** with **RSR30** - see catalogue "Solid state relays" and www.repol.com.pl ② For gold-plated contacts - when the maximum values given have been exceeded, the gold layer is destroyed. Then, the advantages of gold-plating disappear and the values are as for AgSnO₂ contacts (see beside). In consequence however, the life of the contact may be shorter than that of the normal power contact.

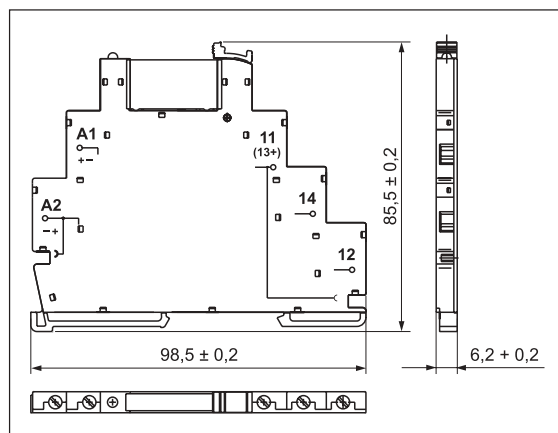
General data

| | |
|---|---|
| Operating time (typical value) | PIR6W-...-R, PIR6W-...-R01: DC: 8 ms AC/DC: 20 ms PIR6W-...-T: DC: 100 µs AC/DC: 10 ms PIR6W-...-C, PIR6W-...-O: DC: 50 µs AC/DC: 10 ms |
| Release time (typical value) | PIR6W-...-R, PIR6W-...-R01: DC: 10 ms AC/DC: 25 ms PIR6W-...-T: DC: 1/2 cycle + 1 ms AC/DC: 30 ms PIR6W-...-C, PIR6W-...-O: DC: 600 µs AC/DC: 20 ms |
| Electrical life • resistive AC1 | > 0,5 x 10 ⁵ 6 A, 250 V AC |
| Mechanical life (cycles) | > 10 ⁷ |
| Dimensions (L x W x H) | 98,5 x 6,2 x 85,5 mm |
| Weight | 45 g |
| Ambient temperature • storage / operating | PIR6W-...-R, PIR6W-...-R01: -40...+70 °C / -40...+55 °C PIR6W-...-T: -40...+70 °C / -20...+55 °C PIR6W-...-C: -25...+70 °C / -25...+55 °C PIR6W-...-O: -25...+70 °C / -20...+55 °C |
| Protection category | IP 20 PN-EN 60529 |
| Environmental protection | RTI PN-EN 116000-3 |
| Shock resistance | 10 g |
| Vibration resistance | 5 g 10...500 Hz |

Connections diagrams



Dimensions



Ordering codes

Ordering codes **PIR6W-1PS-...** are specified in Table 1, "Interface relay code" column.

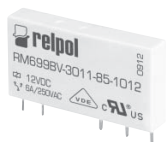
Mounting

Relays **PIR6W-1PS-...** are designed for direct mounting on 35 mm rail mount acc. to PN-EN 60715. Maximum size of wires 1 x 2,5 mm² (1 x 14 AWG). Rated contactability 2 x 1,5 mm² (2 x 16 AWG). Maximum screw torque: 0,3 Nm. Interface relay **PIR6W-1PS-...** consists of: universal socket with electronic **PI6W-1PS-...** and electromagnetic relay **RM699BV** or solid state relay **RSR30**.

PIR6W-1PS-... may be linked with interconnection strip type **ZG20** (see pages 186, 187). Description plates of **PI6W-1246** type are offered for **PIR6W-1PS-...** relays (see pages 186, 187).



PI6W-1PS-...



RM699BV



RSR30



ZG20



PI6W-1246

Table of codes

Table 1

| Interface relay code | Rated input voltage U_n ② | Power of input control circuit | Socket code | Operational relay code | Rated voltage of operational relay U_s ③ |
|----------------------------------|-----------------------------|--------------------------------|---------------------------|------------------------------|--|
| PIR6W-1PS-6VDC-R | 6 V DC | 0,3 W | PI6W-1PS-6VDC | RM699BV-3011-85-1005 | 5 V DC |
| PIR6W-1PS-12VDC-R | 12 V DC | 0,2 W | PI6W-1PS-12/24VDC | RM699BV-3011-85-1012 | 12 V DC |
| PIR6W-1PS-24VDC-R | 24 V DC | 0,3 W | PI6W-1PS-12/24VDC | RM699BV-3011-85-1024 | 24 V DC |
| PIR6W-1PS-36VDC-R | 36 V DC | 0,3 W | PI6W-1PS-36VDC | RM699BV-3011-85-1024 | 24 V DC |
| PIR6W-1PS-48VDC-R | 48 V DC | 0,4 W | PI6W-1PS-48VDC | RM699BV-3011-85-1024 | 24 V DC |
| PIR6W-1PS-60VDC-R | 60 V DC | 0,5 W | PI6W-1PS-60VDC | RM699BV-3011-85-1024 | 24 V DC |
| PIR6W-1PS-24VAC/DC-R | 24 V AC/DC | 0,5 VA / 0,4 W | PI6W-1PS-24VAC/DC | RM699BV-3011-85-1012 | 12 V DC |
| PIR6W-1PS-42VAC/DC-R | 42 V AC/DC | 0,5 VA / 0,4 W | PI6W-1PS-42VAC/DC | RM699BV-3011-85-1024 | 24 V DC |
| PIR6W-1PS-115VAC/DC-R | 115 V AC/DC | 1,2 VA / 1,2 W | PI6W-1PS-115VAC/DC | RM699BV-3011-85-1024 | 24 V DC |
| PIR6W-1PS-230VAC/DC-R | 230 V AC/DC | 1,2 VA / 1,2 W | PI6W-1PS-230VAC/DC | RM699BV-3011-85-1048 | 48 V DC |
| PIR6W-1PS-6VDC-R01 ② | 6 V DC | 0,3 W | PI6W-1PS-6VDC | RM699BV-3211-85-1005 | 5 V DC |
| PIR6W-1PS-12VDC-R01 ② | 12 V DC | 0,2 W | PI6W-1PS-12/24VDC | RM699BV-3211-85-1012 | 12 V DC |
| PIR6W-1PS-24VDC-R01 ② | 24 V DC | 0,3 W | PI6W-1PS-12/24VDC | RM699BV-3211-85-1024 | 24 V DC |
| PIR6W-1PS-36VDC-R01 ② | 36 V DC | 0,3 W | PI6W-1PS-36VDC | RM699BV-3211-85-1024 | 24 V DC |
| PIR6W-1PS-48VDC-R01 ② | 48 V DC | 0,4 W | PI6W-1PS-48VDC | RM699BV-3211-85-1024 | 24 V DC |
| PIR6W-1PS-60VDC-R01 ② | 60 V DC | 0,5 W | PI6W-1PS-60VDC | RM699BV-3211-85-1024 | 24 V DC |
| PIR6W-1PS-24VAC/DC-R01 ② | 24 V AC/DC | 0,5 VA / 0,4 W | PI6W-1PS-24VAC/DC | RM699BV-3211-85-1012 | 12 V DC |
| PIR6W-1PS-42VAC/DC-R01 ② | 42 V AC/DC | 0,5 VA / 0,4 W | PI6W-1PS-42VAC/DC | RM699BV-3211-85-1024 | 24 V DC |
| PIR6W-1PS-115VAC/DC-R01 ② | 115 V AC/DC | 1,2 VA / 1,2 W | PI6W-1PS-115VAC/DC | RM699BV-3211-85-1024 | 24 V DC |
| PIR6W-1PS-230VAC/DC-R01 ② | 230 V AC/DC | 1,2 VA / 1,2 W | PI6W-1PS-230VAC/DC | RM699BV-3211-85-1048 | 48 V DC |
| PIR6W-1PS-6VDC-T | 6 V DC | 0,1 W | PI6W-1PS-6VDC | RSR30-D05-A1-24-020-1 | 5 V DC |
| PIR6W-1PS-12VDC-T | 12 V DC | 0,2 W | PI6W-1PS-12/24VDC | RSR30-D12-A1-24-020-1 | 12 V DC |
| PIR6W-1PS-24VDC-T | 24 V DC | 0,3 W | PI6W-1PS-12/24VDC | RSR30-D24-A1-24-020-1 | 24 V DC |
| PIR6W-1PS-36VDC-T | 36 V DC | 0,3 W | PI6W-1PS-36VDC | RSR30-D24-A1-24-020-1 | 24 V DC |
| PIR6W-1PS-48VDC-T | 48 V DC | 0,4 W | PI6W-1PS-48VDC | RSR30-D24-A1-24-020-1 | 24 V DC |
| PIR6W-1PS-60VDC-T | 60 V DC | 0,5 W | PI6W-1PS-60VDC | RSR30-D24-A1-24-020-1 | 24 V DC |
| PIR6W-1PS-24VAC/DC-T | 24 V AC/DC | 0,5 VA / 0,4 W | PI6W-1PS-24VAC/DC | RSR30-D12-A1-24-020-1 | 12 V DC |
| PIR6W-1PS-42VAC/DC-T | 42 V AC/DC | 0,5 VA / 0,4 W | PI6W-1PS-42VAC/DC | RSR30-D24-A1-24-020-1 | 24 V DC |
| PIR6W-1PS-115VAC/DC-T | 115 V AC/DC | 1,0 VA / 1,0 W | PI6W-1PS-115VAC/DC | RSR30-D24-A1-24-020-1 | 24 V DC |
| PIR6W-1PS-6VDC-C | 6 V DC | 0,1 W | PI6W-1PS-6VDC | RSR30-D05-D1-04-025-1 | 5 V DC |
| PIR6W-1PS-12VDC-C | 12 V DC | 0,2 W | PI6W-1PS-12/24VDC | RSR30-D12-D1-04-025-1 | 12 V DC |
| PIR6W-1PS-24VDC-C | 24 V DC | 0,3 W | PI6W-1PS-12/24VDC | RSR30-D24-D1-04-025-1 | 24 V DC |
| PIR6W-1PS-36VDC-C | 36 V DC | 0,3 W | PI6W-1PS-36VDC | RSR30-D24-D1-04-025-1 | 24 V DC |
| PIR6W-1PS-48VDC-C | 48 V DC | 0,4 W | PI6W-1PS-48VDC | RSR30-D24-D1-04-025-1 | 24 V DC |
| PIR6W-1PS-60VDC-C | 60 V DC | 0,5 W | PI6W-1PS-60VDC | RSR30-D24-D1-04-025-1 | 24 V DC |
| PIR6W-1PS-24VAC/DC-C | 24 V AC/DC | 0,5 VA / 0,4 W | PI6W-1PS-24VAC/DC | RSR30-D12-D1-04-025-1 | 12 V DC |
| PIR6W-1PS-42VAC/DC-C | 42 V AC/DC | 0,5 VA / 0,4 W | PI6W-1PS-42VAC/DC | RSR30-D24-D1-04-025-1 | 24 V DC |
| PIR6W-1PS-115VAC/DC-C | 115 V AC/DC | 1,0 VA / 1,0 W | PI6W-1PS-115VAC/DC | RSR30-D24-D1-04-025-1 | 24 V DC |
| PIR6W-1PS-230VAC/DC-C | 230 V AC/DC | 1,0 VA / 1,0 W | PI6W-1PS-230VAC/DC | RSR30-D48-D1-04-025-1 | 48 V DC |
| PIR6W-1PS-6VDC-O | 6 V DC | 0,1 W | PI6W-1PS-6VDC | RSR30-D05-D1-02-040-1 | 5 V DC |
| PIR6W-1PS-12VDC-O | 12 V DC | 0,2 W | PI6W-1PS-12/24VDC | RSR30-D12-D1-02-040-1 | 12 V DC |
| PIR6W-1PS-24VDC-O | 24 V DC | 0,3 W | PI6W-1PS-12/24VDC | RSR30-D24-D1-02-040-1 | 24 V DC |
| PIR6W-1PS-36VDC-O | 36 V DC | 0,3 W | PI6W-1PS-36VDC | RSR30-D24-D1-02-040-1 | 24 V DC |
| PIR6W-1PS-48VDC-O | 48 V DC | 0,4 W | PI6W-1PS-48VDC | RSR30-D24-D1-02-040-1 | 24 V DC |
| PIR6W-1PS-60VDC-O | 60 V DC | 0,5 W | PI6W-1PS-60VDC | RSR30-D24-D1-02-040-1 | 24 V DC |
| PIR6W-1PS-24VAC/DC-O | 24 V AC/DC | 0,5 VA / 0,4 W | PI6W-1PS-24VAC/DC | RSR30-D12-D1-02-040-1 | 12 V DC |
| PIR6W-1PS-42VAC/DC-O | 42 V AC/DC | 0,5 VA / 0,4 W | PI6W-1PS-42VAC/DC | RSR30-D24-D1-02-040-1 | 24 V DC |
| PIR6W-1PS-115VAC/DC-O | 115 V AC/DC | 1,0 VA / 1,0 W | PI6W-1PS-115VAC/DC | RSR30-D24-D1-02-040-1 | 24 V DC |
| PIR6W-1PS-230VAC/DC-O | 230 V AC/DC | 1,0 VA / 1,0 W | PI6W-1PS-230VAC/DC | RSR30-D48-D1-02-040-1 | 48 V DC |

The data in bold type pertain to the standard versions of the relays. ② Version with gold-plated contacts. ③ It shall be remarked that rated input voltage of the operational relay U_s not always complies with the rated input voltage U_n (which is important on ordering operational relays for sockets).