

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 / 250 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 250 V / 400 V	- / 30 V ②
Max. switching voltage	DC 250 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	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 ... 60 V AC: 50/60 Hz AC/DC 24 ... 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

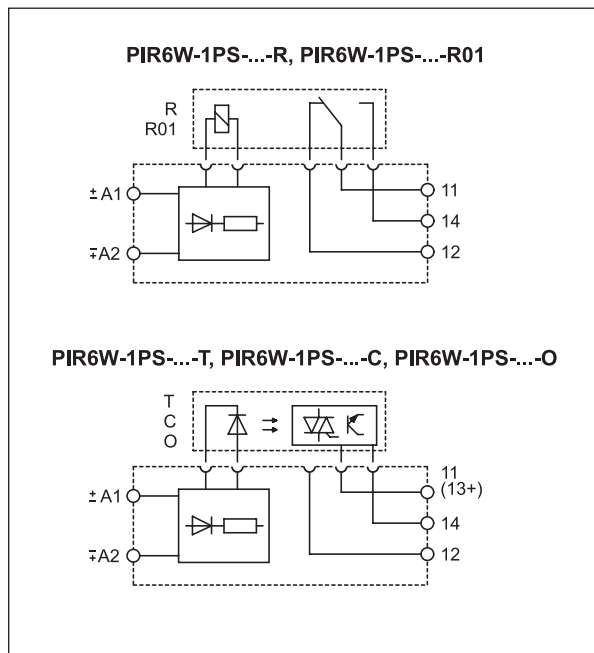
Insulation rated voltage	250 V AC
Rated surge voltage	4 000 V 1,2 / 50 μs
Overvoltage category	III
Insulation pollution degree	3
Dielectric strength	<ul style="list-style-type: none"> • input - output 4 000 V AC 50/60 Hz, 1 min., type of insulation: reinforced • input - output 6 000 V 1,2 / 50 μs, surge 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 42; **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.

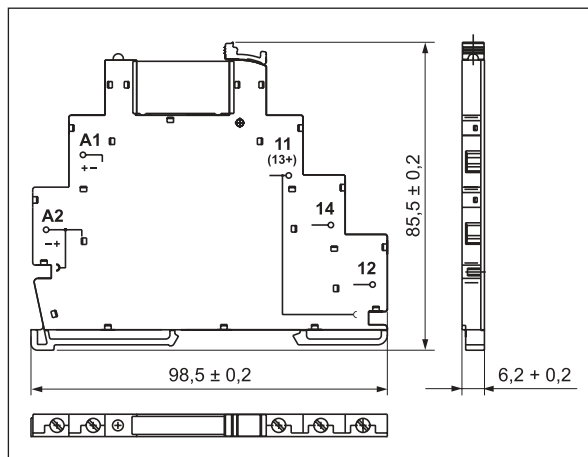
General data

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

Connection diagrams



Dimensions



Ordering codes

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

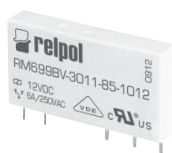
Mounting

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 193, 194). Description plates of **PI6W-1246** type are offered for **PIR6W-1PS-...** relays (see pages 193, 194).



PI6W-1PS-...



RM699BV



RSR30



ZG20



PI6W-1246

Table of codes

Table 1

Interface relay code	Rated input voltage U_n Ⓔ	Power of input control circuit	Socket code	Operational relay code	Rated voltage of operational relay U_s Ⓔ
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 Ⓔ	6 V DC	0,3 W	PI6W-1PS-6VDC	RM699BV-3211-85-1005	5 V DC
PIR6W-1PS-12VDC-R01 Ⓔ	12 V DC	0,2 W	PI6W-1PS-12/24VDC	RM699BV-3211-85-1012	12 V DC
PIR6W-1PS-24VDC-R01 Ⓔ	24 V DC	0,3 W	PI6W-1PS-12/24VDC	RM699BV-3211-85-1024	24 V DC
PIR6W-1PS-36VDC-R01 Ⓔ	36 V DC	0,3 W	PI6W-1PS-36VDC	RM699BV-3211-85-1024	24 V DC
PIR6W-1PS-48VDC-R01 Ⓔ	48 V DC	0,4 W	PI6W-1PS-48VDC	RM699BV-3211-85-1024	24 V DC
PIR6W-1PS-60VDC-R01 Ⓔ	60 V DC	0,5 W	PI6W-1PS-60VDC	RM699BV-3211-85-1024	24 V DC
PIR6W-1PS-24VAC/DC-R01 Ⓔ	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 Ⓔ	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 Ⓔ	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 Ⓔ	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. Ⓔ Version with gold-plated contacts. Ⓕ 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).