

- Interface relay **PIR6W** consists of:
 - socket **PI6W**,
 - changeover relay, rated load 6 A / 230 V (AC1)
- 35 mm DIN rail mount, EN 50022,
- wires connection with screw terminals - 0,2...4 mm²
- Adapted for the co-operation with interconnection strip type **ZG20**
- Equipped in LED green • Accessories: description plates **PI6W-1246**
- Recognitions, certificates, directives:



Contacts

Contact number & arrangement		1C/O	
Contact material		AgSnO₂ , AgSnO ₂ /Au 3 μm	
Max. switching voltage	AC/DC	AgSnO ₂ : 250 V / 300 V	AgSnO ₂ /Au 3 μm: 30 V / 36 V
Min. switching voltage	AC/DC	AgSnO ₂ : 12 V	AgSnO ₂ /Au 3 μm: 100 mV
Rated load	AC1	AgSnO ₂ : 6 A / 230 V AC	AgSnO ₂ /Au 3 μm: 50 mA / 30 V AC
	DC1	AgSnO ₂ : 6 A / 24 V DC	AgSnO ₂ /Au 3 μm: 50 mA / 36 V DC
Min. switching current		AgSnO ₂ : 8 mA / 24 V	AgSnO ₂ /Au 3 μm: 2 mA / 24 V
Max. inrush current (20 ms)		AgSnO ₂ : 15 A	AgSnO ₂ /Au 3 μm: 100 mA
Rated current		6 A	
Max. breaking capacity	AC1	AgSnO ₂ : 1 500 VA	AgSnO ₂ /Au 3 μm: 1,2 VA
Min. breaking capacity		AgSnO ₂ : 0,3 W	AgSnO ₂ /Au 3 μm: 0,01 W
Resistance - initially		AgSnO ₂ : ≤ 50 mΩ 100 mA, 24 V	AgSnO ₂ /Au 3 μm: ≤ 25 mΩ 100 mA, 5 V
Max. operating frequency	AC1	360 cycles/hour	
		72 000 cycles/hour	

Input control circuit

Rated voltage	DC	12- 24 -36 V	
	AC/DC	24-42-115- 230 V	AC: 50/60 Hz
Must release voltage		AC: $\geq 0,2 U_n$	AC: $\geq 0,5 U_n$ ❶
		DC: $\geq 0,1 U_n$	
Operating range of supply voltage		see Table 1	
Must operate voltage		AC and DC: $\leq 0,8 U_n$	
		AC: 0,6...0,85 U_n ❶	DC: $\leq 0,8 U_n$ ❶
Rated power consumption	AC	0,4...2,2 VA	
	DC	0,35...2,2 W	

Insulation

Insulation category		C250	
Rated surge voltage		4 000 V AC	
Overvoltage category		III IEC 61810-5 (PN-IEC 664-1)	
Insulation pollution degree		3	
Dielectric strength			
• coil - contact		4 000 V AC	50/60 Hz, 1 min.
• coil - contact (inrush voltage)		6 000 V	1,2 / 50 μs
• contact - contact		1 000 V AC	50/60 Hz, 1 min.
Contact - coil distance			
• clearance		≥ 6 mm	
• creepage		≥ 8 mm	

General data

Operating time (typical value)		AC: 7 ms		DC: 6 ms	
Release time (typical value)		AC: 15 ms		DC: 10 ms	
Electrical life					
• resistive AC1	360 cycles/hour	> 0,6 x 10 ⁵	6 A, 250 V AC		
• cos ϕ = 0,4		> 2 x 10 ⁵	2 A, 250 V AC		
Mechanical life (cycles)		> 2 x 10 ⁷			
Dimensions (L x W x H)		85,5 x 6,2 x 98,8 mm			
Weight		45 g			
Ambient temperature					
• storage		-40...+70 °C			
• operating		-40...+55 °C		-40...+60 °C 12, 24 V DC	
Protection category		IP 20			
Environmental protection		RTI IEC 61810-7			
Shock resistance		10 g			
Vibration resistance		5 g 10...500 Hz			

Standard contact materials and coil rated voltages are marked with bold type.

❶ Refer version PIR6W-1C/O-230VAC/DC-10 - relay with anti-disturbance circuit

Input data

Table 1

Relay code	Nominal input voltage U_n	Input power - control circuit (U_n)	Input - voltage range V	
			min.	max.
PIR6W-1P-12VDC	12 V DC	0,35 W	9,6	14,4
PIR6W-1P-12VDC-01 *	12 V DC	0,35 W	9,6	14,4
PIR6W-1P-24VDC	24 V DC	0,35 W	19,2	28,0
PIR6W-1P-24VDC-01 *	24 V DC	0,35 W	19,2	28,0
PIR6W-1P-36VDC	36 V DC	0,35 W	28,8	40,0
PIR6W-1P-36VDC-01 *	36 V DC	0,35 W	28,8	40,0
PIR6W-1P-24VAC/DC	24 V AC/DC	0,4 VA / 0,4 W	19,2	26,4
PIR6W-1P-24VAC/DC-01 *	24 V AC/DC	0,4 VA / 0,4 W	19,2	26,4
PIR6W-1P-42VAC/DC	42 V AC/DC	0,45 VA / 0,45 W	33,6	50,0
PIR6W-1P-42VAC/DC-01 *	42 V AC/DC	0,45 VA / 0,45 W	33,6	50,0
PIR6W-1P-115VAC/DC	115 V AC/DC	1,0 VA / 1,0 W	92,0	130,0
PIR6W-1P-115VAC/DC-01 *	115 V AC/DC	1,0 VA / 1,0 W	92,0	130,0
PIR6W-1P-230VAC/DC	230 V AC/DC	1,0 VA / 1,0 W	184,0	253,0
PIR6W-1P-230VAC/DC-01 *	230 V AC/DC	1,0 VA / 1,0 W	184,0	253,0
PIR6W-1P-230VAC/DC-10 **	230 V AC/DC	2,2 VA / 2,2 W	196,0 ***	253,0

Standard versions of relays are marked with bold type.

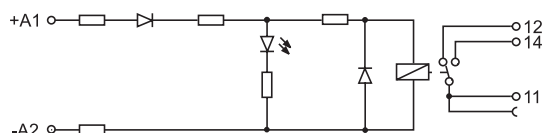
* - relay with gold plated contacts ** - relay with anti-disturbance circuit

*** - 196,0 V at supply voltage AC

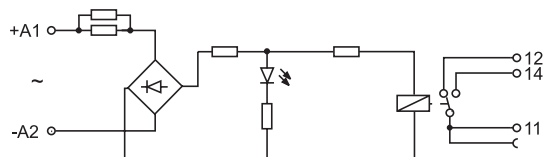
184,0 V at supply voltage DC

Connection diagrams

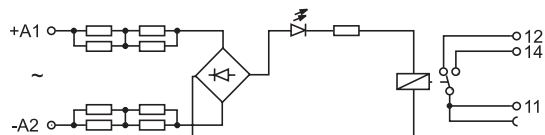
PIR6W-1P-12VDC, PIR6W-1P-12VDC-01
PIR6W-1P-24VDC, PIR6W-1P-24VDC-01
PIR6W-1P-36VDC, PIR6W-1P-36VDC-01



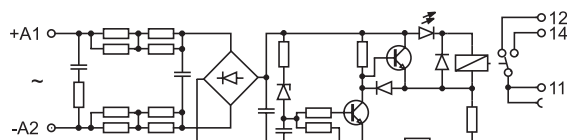
PIR6W-1P-24VAC/DC, PIR6W-1P-24VAC/DC-01
PIR6W-1P-42VAC/DC, PIR6W-1P-42VAC/DC-01



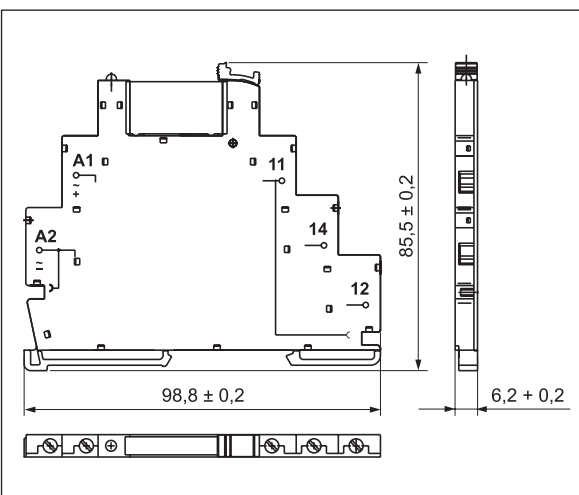
PIR6W-1P-115VAC/DC, PIR6W-1P-115VAC/DC-01
PIR6W-1P-230VAC/DC, PIR6W-1P-230VAC/DC-01



PIR6W-1P-230VAC/DC-10



Dimensions



Mounting

Relays **PIR6W** are designed for 35 mm DIN rail mount, EN 50022.

For relays **PIR6W** are offered description plates type **PI6W-1246** (see page 218).

PIR6W are adapted for the co-operation with interconnection strip type **ZG20**. Interconnection strip **ZG20** allows to common bridging outputs or inputs. Colours of strips: **ZG20-1** red, **ZG20-2** black, **ZG20-3** blue (see page 218).

Ordering codes

Ordering codes **PIR6W** are specified in Table 1, "Relay code" column.