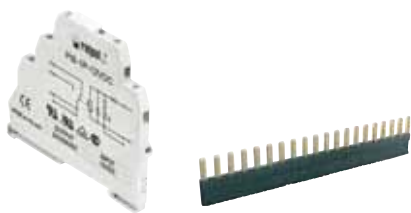






PI6-1P

interface relays



- Width 6,2 mm
- Interface relay **PI6-1P** - with 1 CO contact output
- 35 mm rail mount acc. to PN-EN 60715
- May be linked with interconnection strip type **ZG20**
- Equipped in LED green
- Version for long control lines, with anti-interference filter (**PI6-1P-230VAC/DC-10** ②)
- Recognitions, certifications, directives: : RoHS,    

Contact data

Number and type of contacts	1 CO	
Contact material	AgSnO₂	AgSnO ₂ /Au 3 μm ①
Max. switching voltage	400 V AC / 250 V DC	30 V AC / 36 V DC ①
Min. switching voltage	AC / DC 10 V	5 V
Rated load	AC1 DC1	6 A / 250 V AC 0,05 A / 30 V AC ① 6 A / 24 V DC; 0,15 A / 250 V DC 0,05 A / 36 V DC ①
Min. switching current	100 mA	10 mA
Max. inrush current	10 A 20 ms	0,1 A 20 ms ①
Rated current	6 A	0,05 A ①
Max. breaking capacity	AC1	1 500 VA 1,2 VA ①
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
Input circuit		
Rated voltage	DC AC: 50/60 Hz AC/DC	12 ... 36 V 24 ... 230 V
Must release voltage		AC: ≥ 0,2 U _n AC: ≥ 0,35 U _n ② DC: ≥ 0,1 U _n
Operating range of supply voltage		see Table 1
Must operate voltage		AC and DC: ≤ 0,8 U _n AC: 0,6...0,85 U _n ② DC: ≤ 0,8 U _n ②
Input polarization current		AC: 8 mA < I _p < 10 mA 230 V AC ②
Rated power consumption	DC AC/DC	0,3 ... 0,7 W 0,3 ... 1,6 VA / 0,3 ... 1,6 W
Max. length of control line		≤ 300 m AC control voltage ②
Insulation according to PN-EN 60664-1		
Insulation rated voltage		400 V AC
Rated surge voltage		4 000 V 1,2 / 50 μs
Overvoltage category		III
Insulation pollution degree		3
Dielectric strength	• input - output • input - output • mass - input, output • contact clearance	4 000 V AC 50/60 Hz, 1 min., type of insulation: reinforced 6 000 V 1,2 / 50 μs 2 500 V AC 50/60 Hz, 1 min. 1 000 V AC 50/60 Hz, 1 min., type of clearance: micro-disconnection
Input - output distance	• clearance / creepage	≥ 6 mm / ≥ 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 • cos φ = 0,4 • resistive DC1	> 0,6 x 10 ⁵ 6 A, 250 V AC > 2 x 10 ⁵ 2 A, 250 V AC 10 ⁵ 6 A, 30 V DC
Mechanical life (cycles)		> 2 x 10 ⁷
Dimensions (L x W x H)		93,8 x 6,2 x 80 mm
Weight		40 g
Ambient temperature	• storage • operating	-40...+70 °C -40...+55 °C -40...+60 °C 12, 24 V DC -40...+40 °C 230 V AC ② -40...+50 °C 230 V DC ②
Protection category		IP 20 PN-EN 60529
Environmental protection		RTI PN-EN 116000-3
Shock / vibration resistance		10 g / 5 g 10...500 Hz

The data in bold type pertain to the standard versions of the relays. ① 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), and electrical life of these contacts may be shorter than of normal contacts. ② Refers version for long control lines (max. 300 m) **PI6-1P-230VAC/DC-10** - relay with integrated anti-interference filter (designed on the basis of appropriately selected elements R and C, and Zener diode), resistant to occurrence of induced voltages in long distances of control wires.

PI6-1P

interface relays

Input data

Table 1

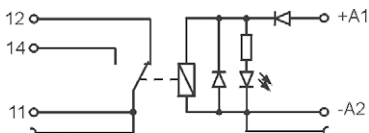
Interface relay code	Rated input voltage U_n	Power of input circuit	Input - voltage range V	
			min. (at 20 °C)	max. (at 55 °C)
PI6-1P-12VDC	12 V DC	0,3 W	9,6	14,4
PI6-1P-24VDC	24 V DC	0,4 W	19,2	28,0
PI6-1P-36VDC	36 V DC	0,7 W	28,8	40,0
PI6-1P-24VAC/DC	24 V AC/DC	0,5 VA / 0,5 W	19,2	26,4
PI6-1P-42VAC/DC	42 V AC/DC	0,3 VA / 0,3 W	33,6	50,0
PI6-1P-115VAC/DC	115 V AC/DC	0,8 VA / 0,8 W	92,0	130,0
PI6-1P-230VAC/DC	230 V AC/DC	0,8 VA / 0,8 W	184,0	253,0
PI6-1P-230VAC/DC-10 ②	230 V AC/DC	1,6 VA / 1,6 W	196,0	253,0
PI6-1P-12VDC-01 ①	12 V DC	0,3 W	9,6	14,4
PI6-1P-24VDC-01 ①	24 V DC	0,4 W	19,2	28,0
PI6-1P-36VDC-01 ①	36 V DC	0,7 W	28,8	40,0
PI6-1P-24VAC/DC-01 ①	24 V AC/DC	0,5 VA / 0,5 W	19,2	26,4
PI6-1P-230VAC/DC-01 ①	230 V AC/DC	0,8 VA / 0,8 W	184,0	253,0

The data in bold type pertain to the standard versions of the relays.

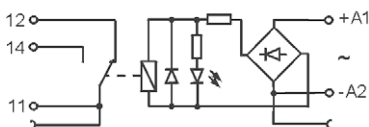
① Version with gold-plated contacts. ② Version for long control lines (max. 300 m), with anti-interference filter.

Connection diagrams

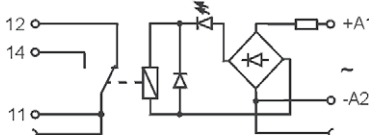
PI6-1P-12VDC, PI6-1P-12VDC-01
PI6-1P-24VDC, PI6-1P-24VDC-01
PI6-1P-36VDC, PI6-1P-36VDC-01



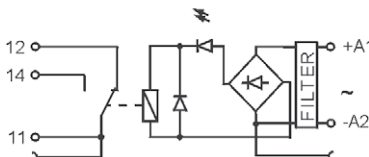
PI6-1P-24VAC/DC, PI6-1P-24VAC/DC-01
PI6-1P-42VAC/DC



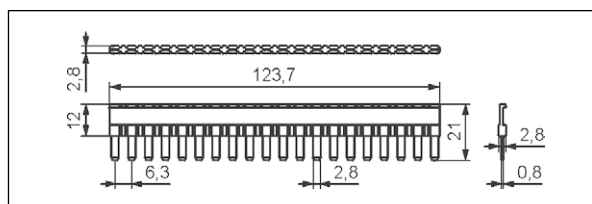
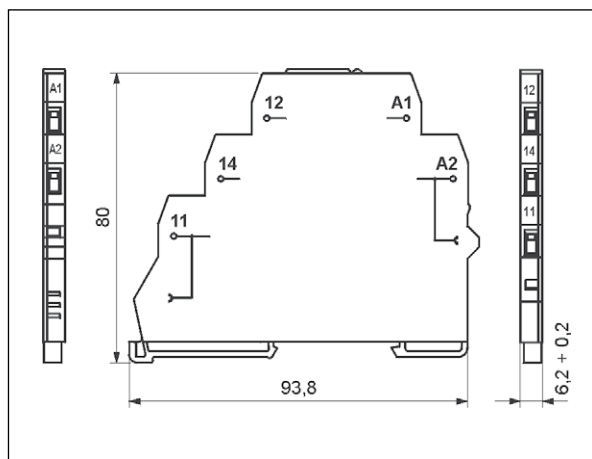
PI6-1P-115VAC/DC
PI6-1P-230VAC/DC, PI6-1P-230VAC/DC-01



PI6-1P-230VAC/DC-10



Dimensions



Interconnection strip type ZG20

PI6-1P

interface relays

Ordering codes

Ordering codes **PI6-1P** are specified in Table 1, „Interface relay code” column.

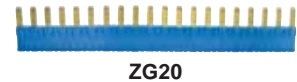
Mounting

Relays **PI6-1P** are designed for direct mounting on 35 mm rail mount acc. to PN-EN 60715. **Connections:** max. cross section of the cables: 1 x 2,5 mm² / 2 x 1,5 mm² (1 x 14 / 2 x 16 AWG), length of the cable deinsulation: 8 mm, max. tightening moment for the terminal: 0,3 Nm.

PI6-1P may be linked with interconnection strip type **ZG20**. Strip **ZG20** bridges common input or output signals, maximum permissible current is 36 A / 250 V AC. Colours of strips: **ZG20-1** red, **ZG20-2** black, **ZG20-3** blue.



Interconnection strip ZG20:
bridging of common
input or output signals.



PI6-1P

Interface relay



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.