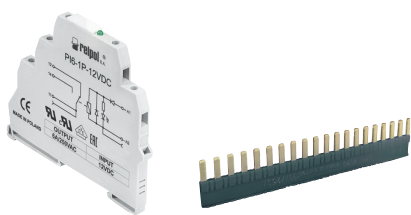


PI6-1P

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 | |
| Min. switching voltage | AC / DC | 10 V / 5 V |
| Rated load | AC1 | 6 A / 250 V AC |
| | DC1 | 6 A / 24 V DC; 0,15 A / 250 V DC |
| Min. switching current | 100 mA | |
| Max. inrush current | 10 A 20 ms | |
| Rated current | 6 A | |
| Max. breaking capacity | AC1 | 1 500 VA |
| Min. breaking capacity | 1 W | |
| Contact resistance | ≤ 100 mΩ 100 mA, 24 V | |
| Max. operating frequency | AC1 | • at rated load |
| | | • no load |
| | | 360 cycles/hour |
| | | 72 000 cycles/hour |
| Input circuit | | |
| Rated voltage | DC | 12 ... 36 V |
| | AC: 50/60 Hz AC/DC | 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 | 0,3 ... 0,7 W |
| | AC/DC | 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 | 4 000 V AC 50/60 Hz, 1 min., type of insulation: reinforced |
| | • input - output | 6 000 V 1,2 / 50 μs |
| | • mass - input, output | 2 500 V AC 50/60 Hz, 1 min. |
| | • contact clearance | 1 000 V AC 50/60 Hz, 1 min., type of clearance: micro-disconnection |
| Input - output distance | ≥ 6 mm / ≥ 8 mm | |
| • clearance / creepage | | |
| 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 | > 0,6 x 10 ⁵ 6 A, 250 V AC |
| | • cos φ = 0,4 | > 2 x 10 ⁵ 2 A, 250 V AC |
| | • resistive DC1 | 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 | -40...+70 °C |
| | • operating | -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

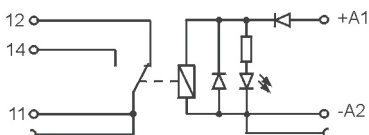
| Interface relay code | Rated input voltage U_n | Power of input circuit | Input - voltage range V | |
|-------------------------|---------------------------|------------------------|----------------------------|-----------------|
| | | | min. (at 20 °C) | max. (at 55 °C) |
| PI6-1P-12VDC | 12 V DC | 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.

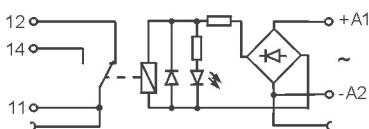
① Version with gold-plated contacts. ② Version for long control lines (max. 300 m), with anti-interference filter.

Connection diagrams

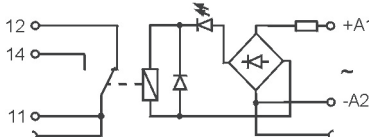
PI6-1P-12VDC, PI6-1P-12VDC-01
PI6-1P-24VDC, PI6-1P-24VDC-01
PI6-1P-36VDC, PI6-1P-36VDC-01



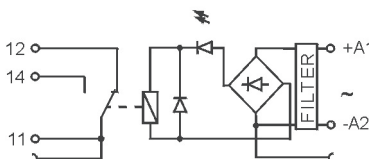
PI6-1P-24VAC/DC, PI6-1P-24VAC/DC-01
PI6-1P-42VAC/DC



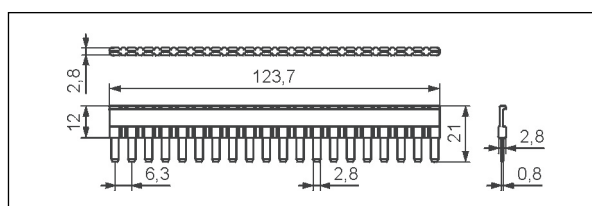
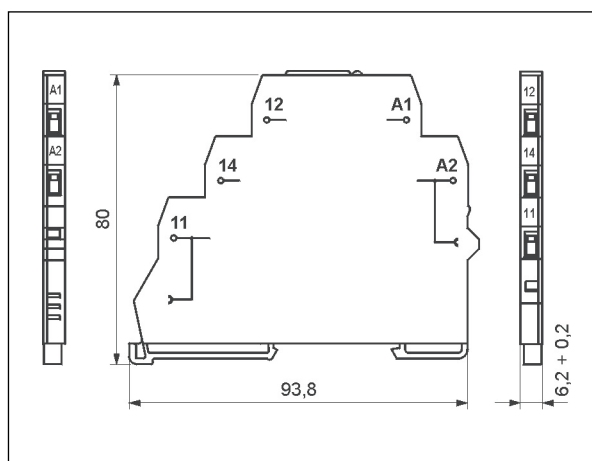
PI6-1P-115VAC/DC
PI6-1P-230VAC/DC, PI6-1P-230VAC/DC-01



PI6-1P-230VAC/DC-10



Dimensions



Interconnection strip type ZG20

PI6-1P

interface relays

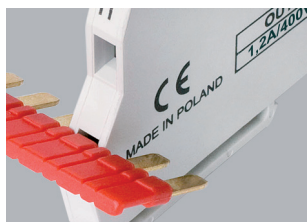
Ordering codes

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

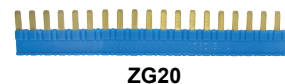
Mounting

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.