



- Relays **DP6-1P** - with changeover relay, rated load 6 A / 250 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 **DG20**
- Equipped in LED green
- Recognitions, certificates, directives:   



Contacts

Contact number & arrangement	1C/O
Contact material	AgSnO₂ , AgSnO ₂ /Au 3 um
Max. switching voltage	AC/DC 250 V / 220 V
Min. switching voltage	AC/DC AgSnO ₂ : 12 V AgSnO ₂ /Au 3 um: 100 mV
Rated load	AC1 AgSnO ₂ : 6 A / 250 V AC AgSnO ₂ /Au 3 um: 50 mA / 30 V AC DC1 AgSnO ₂ : 6 A / 24 V DC AgSnO ₂ /Au 3 um: 50 mA / 36 V DC
Min. switching current	AgSnO ₂ : 8 mA / 24 V AgSnO ₂ /Au 3 um: 2 mA / 24 V
Max. inrush current	AgSnO ₂ : 15 A AgSnO ₂ /Au 3 um: 100 mA ^❶
Rated current	6 A
Max. breaking capacity	AC1 AgSnO ₂ : 1 500 VA AgSnO ₂ /Au 3 um: 1.5 VA
Resistance - initially	AgSnO ₂ : ≤ 50 mΩ 100 mA, 24 V AgSnO ₂ /Au 3 um: ≤ 25 mΩ 100 mA, 5 V
Max. operating frequency	
• at rated load	AC1 360 cycles/hour
• no load	72 000 cycles/hour

Input control circuit

Rated voltage	50/60 Hz AC 95...230 V DC 12- 24 -36 V AC/DC 24-42-115- 230 V AC: 50/60 Hz
Must release voltage	AC: ≥ 0.2 U _n AC: ≥ 0.5 U _n ^❷ DC: ≥ 0.1 U _n
Operating range of supply voltage	see Table 1
Must operate voltage	AC and DC: ≤ 0.7 U _n AC: 0.6...0.85 U _n ^❷ DC: ≤ 0.8 U _n ^❷
Input polarization current	AC: 8 mA < I _p < 10 mA 230 V AC ^❷
Rated power consumption	AC 0.35...2.2 VA DC 0.3...1.6 W

Insulation

Insulation category	C250
Insulation rated voltage	400 V AC
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
• contact - contact	1 000 V AC

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
Rated torque for screw terminals	≤ 0.3 Nm
Mechanical life (cycles)	> 2 x 10 ⁷
Dimensions (L x W x H)	80 x 6.2 x 93.8 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 ^❷ -40...+50 °C 230 V DC ^❷
Protection category	IP 20
Environmental protection	RTI IEC 61810-7

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

❶ Max. inrush current 50 mA at voltage 30 V AC or 36 V DC

❷ Refer version PI6-1P-230VAC/DC-10 - relay with anti-disturbance circuit

Input data

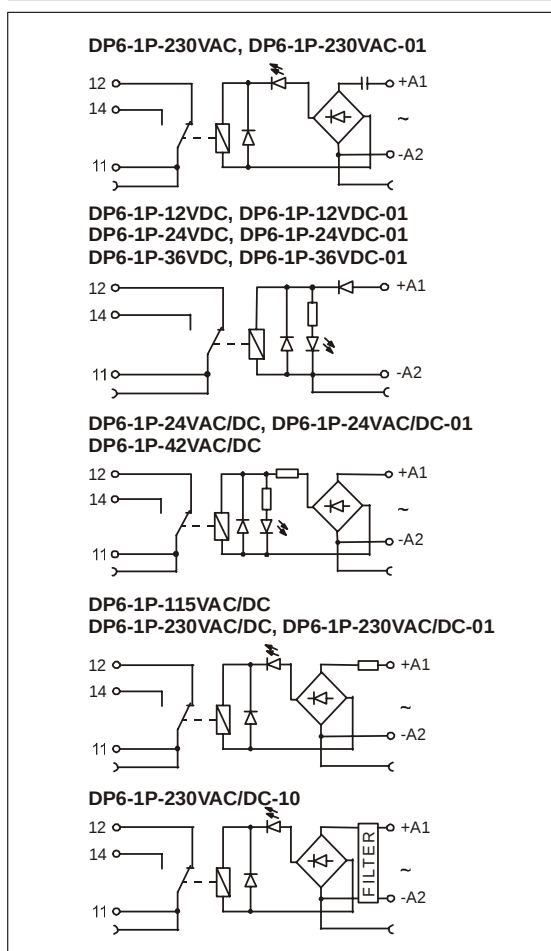
Table 1

Relay code	Nominal input voltage U_n	Input power - control circuit (U_n)	Input - voltage range V	
			min.	max.
DP6-1P-230VAC	95...230 V AC	0.4...1.8 VA	95.0	253.0
DP6-1P-230VAC-01 *	95...230 V AC	0.4...1.8 VA	95.0	253.0
DP6-1P-12VDC	12 V DC	0.3 W	8.5	14.4
DP6-1P-12VDC-01 *	12 V DC	0.3 W	8.5	14.4
DP6-1P-24VDC	24 V DC	0.45 W	16.8	28.0
DP6-1P-24VDC-01 *	24 V DC	0.45 W	16.8	28.0
DP6-1P-36VDC	36 V DC	0.7 W	25.2	40.0
DP6-1P-36VDC-01 *	36 V DC	0.7 W	25.2	40.0
DP6-1P-24VAC/DC	24 V AC/DC	0.48 VA / 0.48 W	16.8	26.4
DP6-1P-24VAC/DC-01 *	24 V AC/DC	0.48 VA / 0.48 W	16.8	26.4
DP6-1P-42VAC/DC	42 V AC/DC	0.35 VA / 0.35 W	29.4	50.0
DP6-1P-115VAC/DC	115 V AC/DC	1.0 VA / 1.0 W	80.0	130.0
DP6-1P-230VAC/DC	230 V AC/DC	1.0 VA / 1.0 W	161.0	253.0
DP6-1P-230VAC/DC-01 *	230 V AC/DC	1.0 VA / 1.0 W	161.0	253.0
DP6-1P-230VAC/DC-10 **	230 V AC/DC	2.2 VA / 1.6 W	196.0	253.0

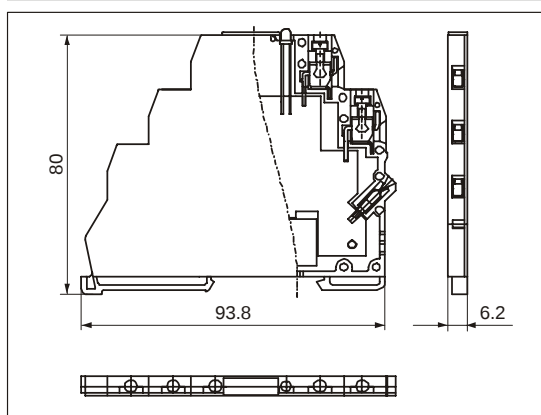
Standard versions of relays are marked with bold type.

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

Connection diagrams



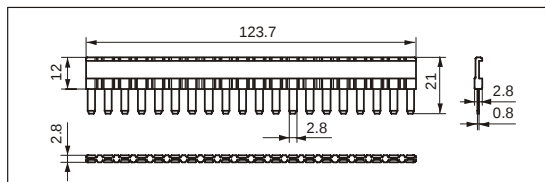
Dimensions



Mounting

Relays **DP6-1P** are designed for 35 mm DIN rail mount, EN 50022.

DP6-1P are adapted for the co-operation with interconnection strip type **DG20**. Interconnection strip **DG20** allows to common bridging outputs or inputs. Colours of strips: **DG20-1** red, **DG20-2** black, **DG20-3** blue.



Ordering codes

Ordering codes **DP6-1P** are specified in Table 1, "Relay code" column.