






- 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 mm<sup>2</sup>
- 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		<b>AgSnO<sub>2</sub></b> , AgSnO <sub>2</sub> /Au 3 um	
Max. switching voltage	AC/DC	250 V / 220 V	
Min. switching voltage	AC/DC	AgSnO <sub>2</sub> : 12 V	AgSnO <sub>2</sub> /Au 3 um: 100 mV
Rated load	AC1	AgSnO <sub>2</sub> : 6 A / 250 V AC	AgSnO <sub>2</sub> /Au 3 um: 50 mA / 30 V AC
	DC1	AgSnO <sub>2</sub> : 6 A / 24 V DC	AgSnO <sub>2</sub> /Au 3 um: 50 mA / 36 V DC
Min. switching current		AgSnO <sub>2</sub> : 8 mA / 24 V	AgSnO <sub>2</sub> /Au 3 um: 2 mA / 24 V
Max. inrush current		AgSnO <sub>2</sub> : 15 A	AgSnO <sub>2</sub> /Au 3 um: 100 mA <sup>①</sup>
Rated current		6 A	
Max. breaking capacity	AC1	AgSnO <sub>2</sub> : 1 500 VA	AgSnO <sub>2</sub> /Au 3 um: 1.5 VA
Resistance - initially		AgSnO <sub>2</sub> : ≤ 50 mΩ 100 mA, 24 V	AgSnO <sub>2</sub> /Au 3 um: ≤ 25 mΩ 100 mA, 5 V
Max. operating frequency	AC1	• at rated load	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- <b>230</b> V AC: 50/60 Hz	
Must release voltage		AC: ≥ 0.2 U <sub>n</sub>	AC: ≥ 0.5 U <sub>n</sub> <sup>②</sup>
		DC: ≥ 0.1 U <sub>n</sub>	
Operating range of supply voltage		see Table 1	
Must operate voltage		AC and DC: ≤ 0.7 U <sub>n</sub>	
		AC: 0.6...0.85 U <sub>n</sub> <sup>②</sup>	DC: ≤ 0.8 U <sub>n</sub> <sup>②</sup>
Input polarization current		AC: 8 mA < I <sub>p</sub> < 10 mA 230 V AC <sup>②</sup>	
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 <sup>5</sup>	6 A, 250 V AC
	• cos φ = 0,4	> 2 x 10 <sup>5</sup>	2 A, 250 V AC
	• resistive DC1	10 <sup>5</sup>	6 A, 30 V DC
Rated torque for screw terminals	≤ 0.3 Nm		
Mechanical life (cycles)	> 2 x 10 <sup>7</sup>		
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 <sup>②</sup>	-40...+50 °C 230 V DC <sup>②</sup>
Protection category	IP 20		
Environmental protection	RTI IEC 61810-7		

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

<sup>①</sup> Max. inrush current 50 mA at voltage 30 V AC or 36 V DC

<sup>②</sup> Refer version PI6-1P-230VAC/DC-10 - relay with anti-disturbance circuit

### Input data

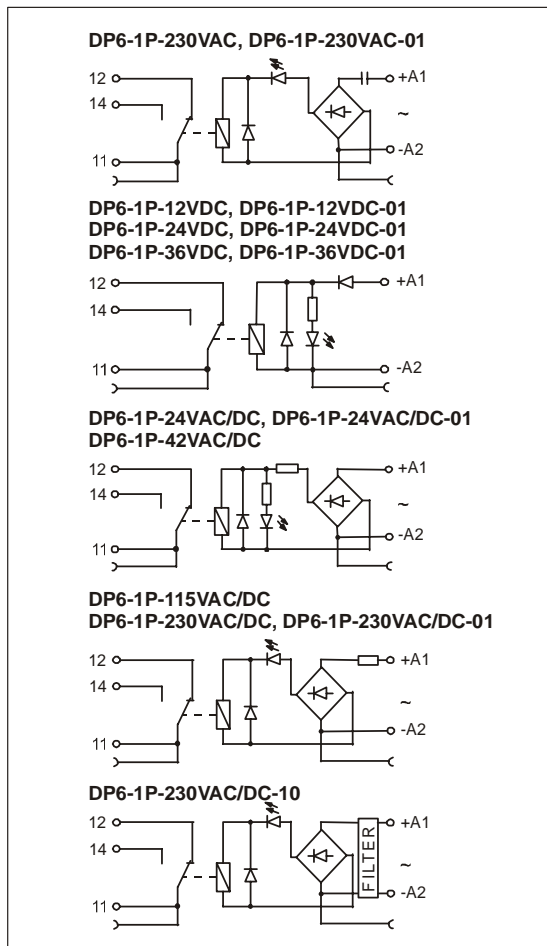
Table 1

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
<b>DP6-1P-24VDC</b>	<b>24 V DC</b>	<b>0.45 W</b>	<b>16.8</b>	<b>28.0</b>
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
<b>DP6-1P-230VAC/DC</b>	<b>230 V AC/DC</b>	<b>1.0 VA / 1.0 W</b>	<b>161.0</b>	<b>253.0</b>
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

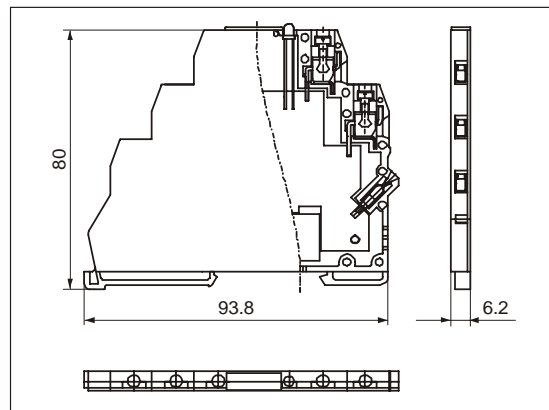
Standard versions of relays are marked with bold type.

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

### Connection diagrams



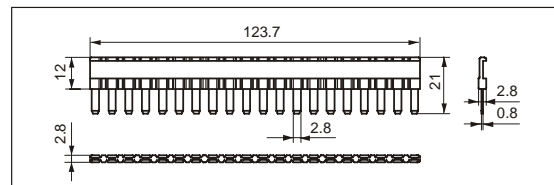
### Dimensions



### 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.