

**PR 45 - 46
Universal Power
Relays**



- Monostable, neutral relay
- DC or AC coil
- High switching power
- Sockets and accessories
- VDE, UL, CE Approvals

Technical data

Characteristics

- Contact Material: AgNi 10
- Rated Current: 10A
- Max. Switch-on Current: 20A (4 s, 10% duty cycle)
- Max. Operating Voltage: 250VAC
- Max. Switching Power: 2500VA
- Min. Switching Load: 12VAC 100mA
- Contact Resistance: $\leq 100 \text{ m}\Omega$ (New relay)
- Max. Operating Frequency:
1000 operations/h rated load 36000 operations/h min. load
- Mechanical Life: $> 10^7$ operations
- Electrical Life: See diagram
- Rated Power: abt. 1.3 W 2 VA
- Operate Power: abt. 0.8 W 1.2 VA
- Max. Coil Temperature: 155°C
- Thermal Coil Resistance: 50 K / W
- Operate Voltage: $U_{op} \leq 80\% U_n$
- Release Voltage: $U_{re} \geq 10\% U_n$ (DC) - $U_{re} \geq 15\% U_n$ (AC)
- Operative Range: 1 (IEC 255-1-00)
- Test Voltage (1 min.): contact-coil $\geq 2 \text{ kV rms } 50 \text{ Hz}$
contact-contact $\geq 1 \text{ kV rms } 50 \text{ Hz}$
between contact sets $\geq 2 \text{ kV rms } 50 \text{ Hz}$
- Operate Time at U_n : $\geq 20 \text{ ms}$
- Release Time: $\leq 15 \text{ ms}$
- Bounce Time: $\leq 5 \text{ ms}$
- Insulation Resistance (500 VDC): $> 10^9 \text{ M}\Omega$
- Vibration Resistance (10–55Hz): $3 g_n$
- Shock Resistance (11 ms): functional $10 g_n$
destructive $100 g_n$
- Ambient Temperature: operating $-25^\circ\text{C}/+50^\circ\text{C}$,
storage $-40^\circ\text{C}/+80^\circ\text{C}$
- Protection Degree: IP 40, EN60529
- Insulation Class: 3-250, IEC 60664-1
- Mounting Position: as desired, relay distance 10 mm
- Relay Weight: 80 g

Coil data at 20 °C

Coil Rated Voltage U_n (V)	Coil Resistance			Operative Voltage Range		
	DC	50 Hz	60 Hz	Operate $U_{op} \leq$ (V)	U_{MAX} DC \leq (V)	U_{MAX} AC \leq (V)
	$R_n(\Omega) \pm 10\%$					
6	28	5.7	5	4.8	9	9.5
12	110	25	20	9.6	18	19
24	440	100	80	19.2	36	38
48	1740	400	320	38.4	73	76
60	2750	630	510	48	91	95
110	9000	2000	1750	88	168	174
220	36000	7700	7000	176	336	349
230	39000	8800	7500	184	351	365

Ordering information

	PR 4	5, 6	X	X	XXX V
Basic designation	<div style="border-left: 1px solid black; border-right: 1px solid black; border-bottom: 1px solid black; height: 150px; margin: 0 auto;"></div>				
Type of terminals: 5 - For socket, faston or soldering 6 - For printed circuit					
Number of change-over contacts: A, B, C					
Voltage type: 0 = DC - 5 = 50 Hz - 6 = 60 Hz					
Rated voltage of coil					

Relay

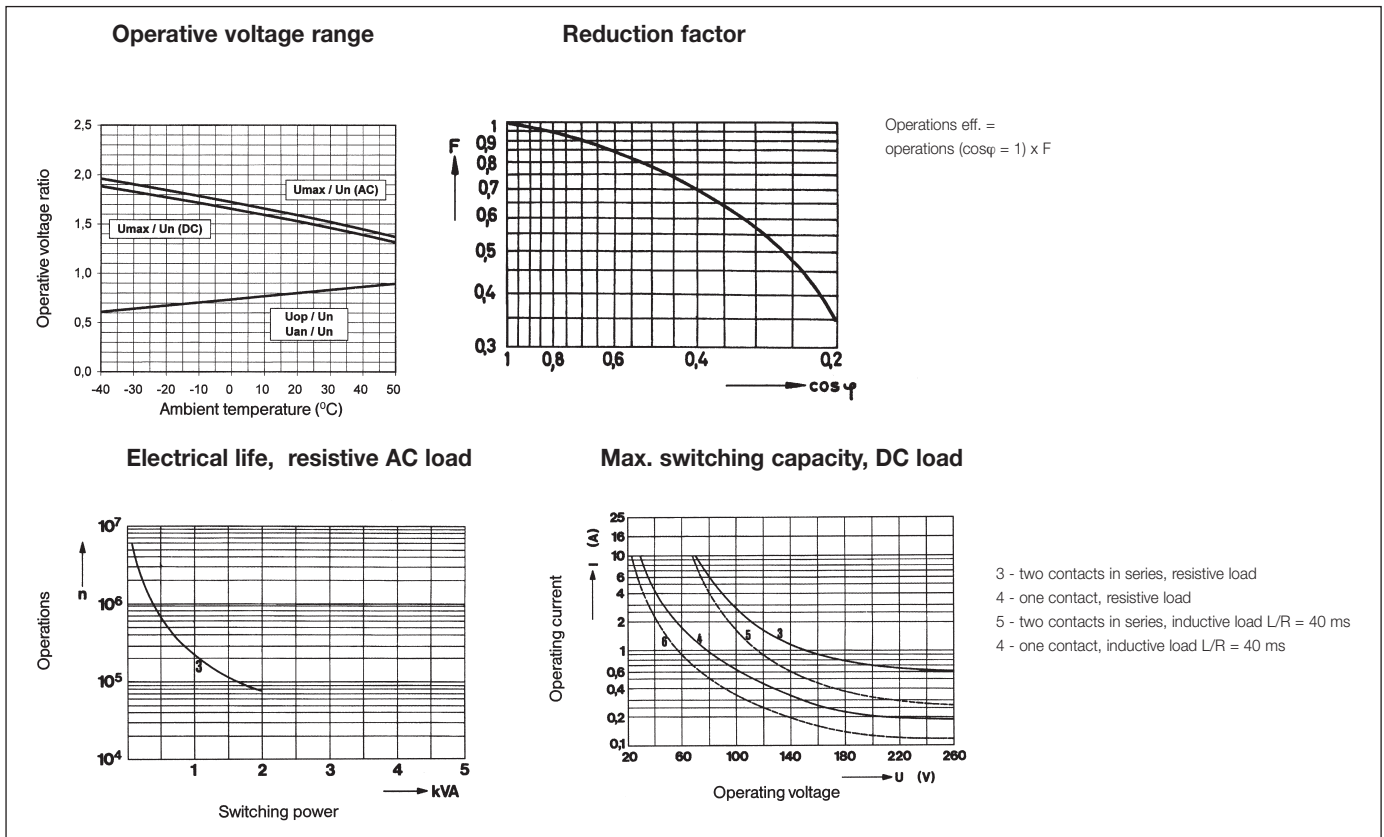
- PR 45 - Relay with 1, 2 or 3 contacts
- PR 46 - Relay with 1, 2 or 3 contacts for printed circuits

Relay Mounting

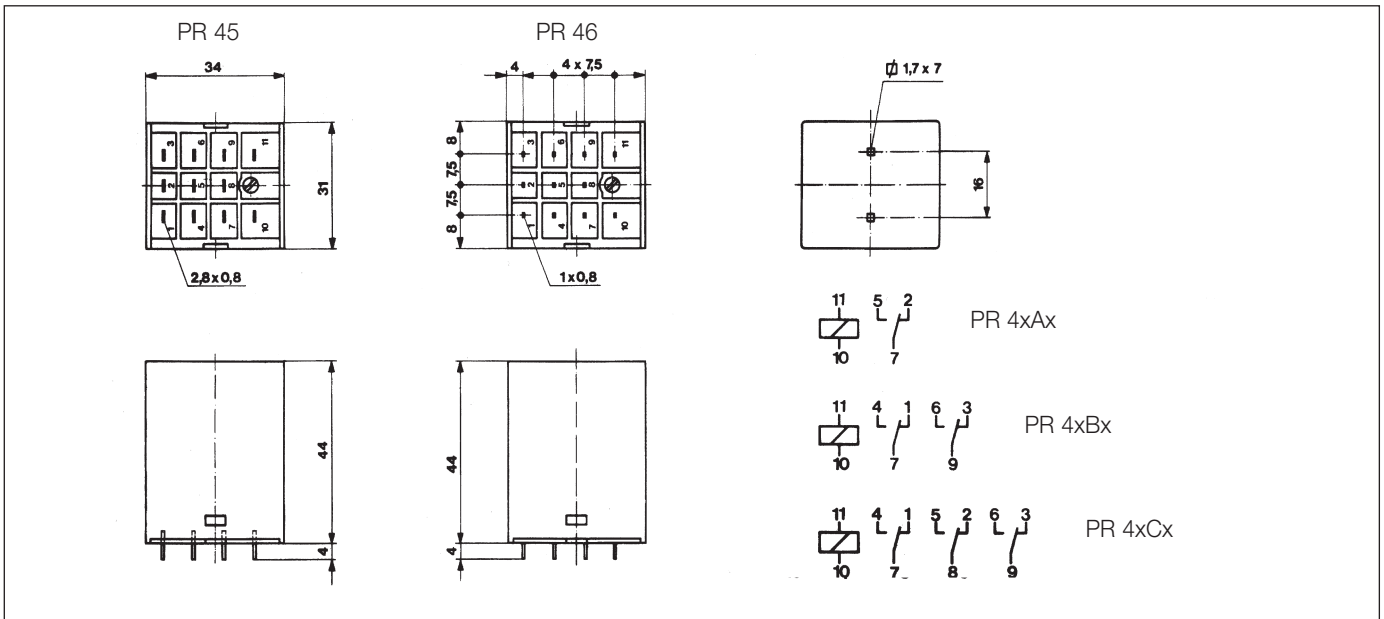
- PR 45 - to the socket
 - with two screws B2.2x6.5 DIN7971 directly via cover or via bracket TLK 1041 to the plate
 - with adapter TLK 1042 on the rail 35 mm
 - via socket on the rail or plate
- PR 46 - on printed circuit board

Relay connection

- PR 45 - for faston terminals 2.8x0.8 mm
 - bracket TLK 1041
 - direct soldering of wire to the terminals of relay adapter TLK 1042
 - via socket
 - socket TLK 1141
 - via socket on printed circuit
 - socket TLK 1143
 - via socket
 - socket TLK 1441
- PR 46 - through printed circuit



Dimensions and Terminals Layout in mm



Accessories

