

**Power relays 1 pole for direct PCB or socket mount**

**Type 40.31**  
- 1 CO 12 A (3.5 mm pin pitch)

**Type 40.61**  
- 1 CO 16 A (5.0 mm pin pitch)

- Pin length 3.5 mm for PCB mount
- Pin length 5.3 mm for Plug-in mount
- DC coils (650 mW or 500 mW)
- Cadmium-free contact material available
- 8 mm Creepage and Clearance, 6 kV (1.2/50µs) between coil and contact
- Meets EN 60335-1 glow wire requirements
- 95 series sockets for PCB or 35 mm rail mounting (EN 60715) with Screw, Screwless or Push-in terminals
- Coil Indication and EMC suppression modules 99 series and Timer module 86.30 options
- Environmental protection:  
RT II - flux proof (Standard)  
RT III - wash tight (Option)

\* mounted on sockets ≤ 10 A

For outline drawing see page 10

**Contact specification**

Contact configuration	1 CO (SPDT)	1 CO (SPDT)
Rated current/Maximum peak current	A 12*/20	16/30
Rated voltage/Maximum switching voltage	V AC 250/400	250/400
Rated load AC1	VA 3000	4000
Rated load AC15 (230 V AC)	VA 1000	1000
Single phase motor rating (230 V AC)	kW 0.55	0.55
Breaking capacity DC1: 30/110/220 V	A 12/0.3/0.12	16/0.3/0.12
Minimum switching load	mW (V/mA) 300 (5/5)	500 (10/5)
Standard contact material	AgNi	AgCdO

**Coil specification**

Nominal voltage (U <sub>N</sub> )	V AC (50/60 Hz)	—	—
	V DC	12 - 24	12 - 24
Rated power DC/sensitive DC	W	0.65/0.5	0.65/0.5
Operating range	AC	—	—
	DC/sensitive DC	(0.73...1.5)U <sub>N</sub> / (0.73...1.5)U <sub>N</sub>	(0.73...1.5)U <sub>N</sub> / (0.8...1.5)U <sub>N</sub>
Holding voltage	DC	0.4 U <sub>N</sub>	0.4 U <sub>N</sub>
Must drop-out voltage	DC	0.1 U <sub>N</sub>	0.1 U <sub>N</sub>

**Technical data**

Mechanical life	cycles	10 · 10 <sup>6</sup>	10 · 10 <sup>6</sup>
Electrical life at rated load AC1	cycles	200 · 10 <sup>3</sup>	100 · 10 <sup>3</sup>
Operate/release time	ms	7/3 (10/3 sensitive)	7/3 (10/3 sensitive)
Insulation between coil and contacts (1.2/50 µs)	kV	6 (8 mm)	6 (8 mm)
Dielectric strength between open contacts	V AC	1000	1000
Ambient temperature range	°C	-40...+85	-40...+85
Environmental protection		RT II**	RT II**

**Approvals** (according to type)

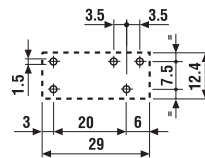
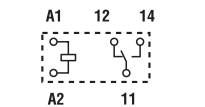


\*\* See general technical information "Guidelines for automatic flow solder processes" page II.

**40.31**



- 1 CO 12 A on PCB, 10 A with socket
- 3.5 mm pin pitch
- PCB or 95 Series socket mount

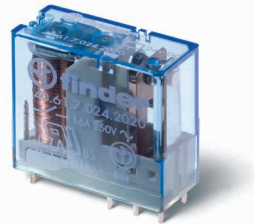


Copper side view

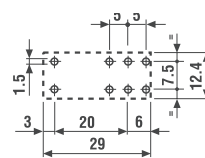
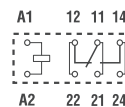
Pin length 3.5 mm for PCB only  
Pin length 5.3 mm for PCB or sockets

See ordering information

**40.61**



- 1 CO 16 A
- 5.0 mm pin pitch
- PCB or 95 Series socket mount



Copper side view

Pin length 3.5 mm for PCB only  
Pin length 5.3 mm for PCB or sockets

See ordering information

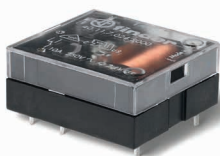
## PCB relay

## Type 40.11

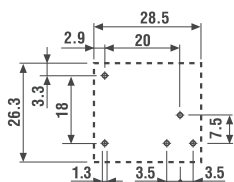
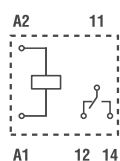
- 1 CO 10 A - flat pack

- DC (sensitive) coils
- Cadmium-free contact material available
- 8 mm Creepage and Clearance, 6 kV (1.2/50µs) between coil and contact

## 40.11



- 1 CO 10 A
- PCB mount 12.7 mm high



Copper side view

Pin length 3.5 mm for PCB only

FOR UL RATINGS SEE:

"General technical information" page V

For outline drawing see page 10

## Contact specification

Contact configuration		1 CO (SPDT)
Rated current/Maximum peak current	A	10/20
Rated voltage/ Maximum switching voltage	V AC	250/400
Rated load AC1	VA	2500
Rated load AC15 (230 V AC)	VA	500
Single phase motor rating (230 V AC)	kW	0.37
Breaking capacity DC1: 30/110/220 V	A	10/0.3/0.12
Minimum switching load	mW (V/mA)	300 (5/5)
Standard contact material		AgCdO

## Coil specification

Nominal voltage (U <sub>N</sub> )	V AC (50/60 Hz)	—
	V DC	6 - 12 - 24 - 48 - 60
Rated power AC/DC/sens. DC	VA (50 Hz)/W/W	—/—/0.5
Operating range	AC	—
	DC/sens. DC	—/(0.73...1.75)U <sub>N</sub>
Holding voltage	AC/DC	—/0.4 U <sub>N</sub>
Must drop-out voltage	AC/DC	—/0.1 U <sub>N</sub>

## Technical data

Mechanical life	cycles	20 · 10 <sup>6</sup>
Electrical life at rated load AC1	cycles	200 · 10 <sup>3</sup>
Operate/release time	ms	12/4
Insulation between coil and contacts (1.2/50 µs)	kV	6 (8 mm)
Dielectric strength between open contacts	V AC	1000
Ambient temperature range	°C	-40...+70
Environmental protection		RT I

Approvals (according to type)

