

Power relays 1 and 2 pole for direct PCB or socket mount

Type 40.31

- 1 CO 10 A (3.5 mm pin pitch)

Type 40.51

- 1 CO 10 A (5 mm pin pitch)

Type 40.52

- 2 CO 8 A (5 mm pin pitch)

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

FOR UL RATINGS SEE:

"General technical information" page V

For outline drawing see page 10

Contact specification

Contact configuration		1 CO (SPDT)	1 CO (SPDT)	2 CO (DPDT)
Rated current/Maximum peak current	A	10/20	10/20	8/15
Rated voltage/ Maximum switching voltage	V AC	250/400	250/400	250/400
Rated load AC1	VA	2500	2500	2000
Rated load AC15 (230 V AC)	VA	500	500	400
Single phase motor rating (230 V AC)	kW	0.37	0.37	0.3
Breaking capacity DC1: 30/110/220 V	A	10/0.3/0.12	10/0.3/0.12	8/0.3/0.12
Minimum switching load	mW (V/mA)	300 (5/5)	300 (5/5)	300 (5/5)
Standard contact material		AgNi	AgNi	AgNi

Coil specification

Nominal voltage (U _N)	V AC (50/60 Hz)	6 - 12 - 24 - 48 - 60 - 110 - 120 - 230 - 240		
	V DC	5 - 6 - 7 - 9 - 12 - 14 - 18 - 21 - 24 - 28 - 36 - 48 - 60 - 90 - 110 - 125		
Rated power AC/DC/sens. DC	VA (50 Hz)/W/W	1.2/0.65/0.5	1.2/0.65/0.5	1.2/0.65/0.5
Operating range	AC	(0.8...1.1)U _N	(0.8...1.1)U _N	(0.8...1.1)U _N
	DC/sens. DC	(0.73...1.5)U _N / (0.73...1.5)U _N	(0.73...1.5)U _N / (0.73...1.5)U _N	(0.73...1.5)U _N / (0.73...1.5)U _N
Holding voltage	AC/DC	0.8 U _N / 0.4 U _N	0.8 U _N / 0.4 U _N	0.8 U _N / 0.4 U _N
Must drop-out voltage	AC/DC	0.2 U _N / 0.1 U _N	0.2 U _N / 0.1 U _N	0.2 U _N / 0.1 U _N

Technical data

Mechanical life	cycles	10 · 10 ⁶	10 · 10 ⁶	10 · 10 ⁶
Electrical life at rated load AC1	cycles	200 · 10 ³	200 · 10 ³	100 · 10 ³
Operate/release time	ms	7/3 - (12/4 sensitive)	7/3 - (12/4 sensitive)	7/3 - (12/4 sensitive)
Insulation between coil and contacts (1.2/50 µs)	kV	6 (8 mm)	6 (8 mm)	6 (8 mm)
Dielectric strength between open contacts	V AC	1000	1000	1000
Ambient temperature range	°C	-40...+85	-40...+85	-40...+85
Environmental protection		RT II**	RT II**	RT II**

Approvals (according to type)



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

	40.31	40.51	40.52
	<ul style="list-style-type: none"> • 1 CO 10 A • 3.5 mm pin pitch • PCB or 95 Series socket mount 	<ul style="list-style-type: none"> • 1 CO 10 A • 5.0 mm pin pitch • PCB or 95 Series socket mount 	<ul style="list-style-type: none"> • 2 CO 8 A • 5.0 mm pin pitch • PCB or 95 Series socket mount
	Copper side view	Copper side view	Copper side view
	Pin length 5.3 mm for PCB or sockets	Pin length 5.3 mm for PCB or sockets	Pin length 5.3 mm for PCB or sockets

Power relays 1 and 2 pole for direct PCB or socket mount

Type 40.61

- 1 CO 16 A (5.0 mm pin pitch)
- DC coils (standard or sensitive) or AC coils

Type 40.xx.6

- Bistable versions of the types 40.31, 40.51, 40.52 and 40.61
- Bistable (single coil) DC or AC coils

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

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	16/30*
Rated voltage/ Maximum switching voltage	V AC	250/400
Rated load AC1	VA	4000
Rated load AC15 (230 V AC)	VA	750
Single phase motor rating (230 V AC)	kW	0.55
Breaking capacity DC1: 30/110/220 V	A	16/0.3/0.12
Minimum switching load	mW (V/mA)	500 (10/5)
Standard contact material		AgCdO

Coil specification

Nominal voltage (U _N)	V AC (50/60 Hz)	6- 12- 24- 48- 60- 110- 120- 230- 240
	V DC	***See table
Rated power AC/DC/sens. DC	VA (50 Hz)/W/W	1.2/0.65/0.5
Operating range	AC	(0.8...1.1)U _N
	DC/sens. DC	(0.73...1.5)U _N / (0.8...1.5)U _N
Holding voltage	AC/DC	0.8 U _N / 0.4 U _N
Must drop-out voltage	AC/DC	0.2 U _N / 0.1 U _N

Technical data

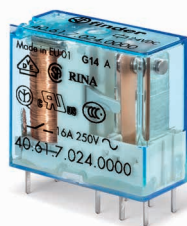
Mechanical life	cycles	10 · 10 ⁶
Electrical life at rated load AC1	cycles	100 · 10 ³
Operate/release time	ms	7/3 - (12/4 sensitive)
Insulation between coil and contacts (1.2/50 µs)	kV	6 (8 mm)
Dielectric strength between open contacts	V AC	1000
Ambient temperature range	°C	-40...+85
Environmental protection		RT II**

Approvals (according to type)

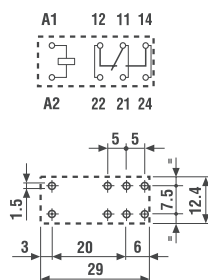


** See general technical information "Guidelines for automatic flow solder processes" page II.

40.61



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



Copper side view

Pin length 5.3 mm for PCB or sockets

40.xx.6



- Bistable (single coil)
- 3.5 or 5.0 mm pin pitch
- PCB or 95 Series socket mount

Bistable version (1 coil) types:

- 40.31.6...
- 40.51.6...
- 40.52.6...
- 40.61.6...

For wiring diagrams see page 9

Pin length 5.3 mm for PCB or sockets

* With the AgSnO₂ material the maximum peak current is 120 A - 5 ms on normally open contact.

*** Nominal voltage (U_N):
5 - 6 - 7 - 9 - 12 - 14 - 18 - 21 - 24 - 28 - 36 - 48 - 60 - 90 - 110 - 125 V DC