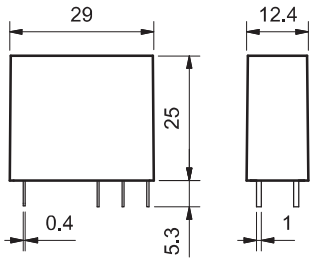
Features

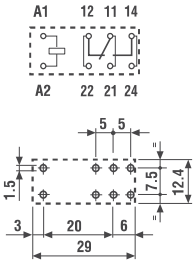
40.61 - 1 Pole 16 A (5 mm pin pitch)
40.xx.6 - Bistable versions of the 40.31, 40.51, 40.52 & 40.61 relays

PCB mount
- direct or via PCB socket
35 mm rail mount
- via screw and screwless sockets

- DC coils & AC coils
- Cadmium Free option available
- 8 mm, 6 kV (1.2/50 µs) isolation, coil-contacts
- UL Listing (certain 40.61 relay/socket combinations)
- Flux proof: RT II standard, (RT III option)
- 95 series sockets
- Coil EMC suppression
- Timer accessories 86 series

40.61	40.xx.6
	
• 5 mm contact pin pitch • 1 Pole 16 A • PCB or 95 series sockets	• Bistable (single coil) versions of 40.31/51/52/61 • PCB or 95 series sockets





Copper side view

Bistable version (1 coil) types:

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

For wiring diagrams see page 8

For UL ratings see:
"General technical information" page V

		40.61	40.xx.6
Contact specification			
Contact configuration		1 CO (SPDT)	
Rated current/Maximum peak current	A	16/30*	
Rated voltage/Maximum switching voltage	V AC	250/400	See relays
Rated load AC1	VA	4,000	40.31
Rated load AC15 (230 V AC)	VA	750	40.51
Single phase motor rating (230 V AC)	kW	0.55	40.52
Breaking capacity DC1: 30/110/220 V	A	16/0.3/0.12	40.61
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	5 - 6 - 12 - 24 - 48 - 110
	V DC	***See table	5 - 6 - 12 - 24 - 48 - 110
Rated power AC/DC/sens. DC	VA (50 Hz)/W/W	1.2/0.65/0.5	1.0/1.0/—
Operating range	AC	(0.8...1.1)U_N	(0.8...1.1)U_N
	DC/sens. DC	(0.73...1.5)U_N/(0.8...1.5)U_N	(0.8...1.1)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 AC/DC	cycles	$10 \cdot 10^6$/$20 \cdot 10^6$	See relays
Electrical life at rated load AC1	cycles	$100 \cdot 10^3$	40.31
Operate/release time	ms	7/3 - (12/4 sensitive)	40.51
Insulation between coil and contacts (1.2/50 µs)	kV	6 (8 mm)	40.52
Dielectric strength between open contacts	V AC	1,000	40.61
Ambient temperature range	°C	–40...+85	Min. impulse duration
Environmental protection		RT II**	≥ 20 ms
Approvals (according to type)			

* With the $AgSnO_2$ 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

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

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Ordering information

Example: 40 series PCB relay, 2 CO (DPDT), 230 V AC coil.

4 0	.	5	2	.	8	.	2 3 0	.	A: 0	B: 0	C: 0	D: 0

Series

Type
1 = PCB - 3.5 mm pinning, flat
3 = PCB - 3.5 mm pinning
4 = PCB - 3.5 mm pinning
5 = PCB - 5 mm pinning
6 = PCB - 5 mm pinning

No. of poles
1 = 1 pole
for: 40.11, 10 A/16 A
40.31, 10 A
40.41, 10 A
40.51, 10 A
40.61, 16 A
2 = 2 pole
for: 40.52, 8 A

Coil version
6 = AC/DC bistable
7 = Sensitive DC
8 = AC (50/60 Hz)
9 = DC

Coil voltage
See coil specifications

A: Contact material
0 = Standard AgNi
for 40.31/51/52,
AgCdO for 40.61
2 = AgCdO (standard
for 40.11/41)
4 = $AgSnO_2$
5 = AgNi + Au (5 µm)

B: Contact circuit
0 = CO (nPDT)
3 = NO (nPST)

C: Options
0 = None
16 = With rated current 16 A (for 40.11)

D: Special versions
0 = Standard
1 = Wash tight (RT III)
3 = High temperature (+ 125 °C) wash tight

Selecting features and options: only combinations in the same row are possible.
Preferred selections for best availability are shown in **bold.**

Type	Coil version	A	B	C	D
40.11	sensitive DC	**2** - 4	**0**	**0**	**0**
40.11	sensitive DC	**2** - 4	0	16	/
40.41	sensitive DC	0 - **2**	**0** - 3	**0**	**0**
40.31/51	AC-sens. DC	**0** - 2 - 5	**0** - 3	**0**	**0** - 1
40.31/51	DC	**0** - 2 - 5	**0** - 3	**0**	**0** - 1 - 3
40.52	AC-sens. DC	**0** - 2 - 5	**0** - 3	**0**	**0** - 1
40.52	DC	**0** - 2 - 5	**0** - 3	**0**	**0** - 1 - 3
40.61	AC-sens. DC	**0** - 4	**0** - 3	**0**	**0** - 1
40.61	DC	**0** - 4	**0** - 3	**0**	**0** - 1 - 3
40.31/51/52/61	bistable	**0**	**0**	**0**	**0**

Technical data

Insulation according to EN 61810-1						
			1 pole		2 pole	
Nominal voltage of supply system		V AC	230/400		230/400	
Rated insulation voltage		V AC	250	400	250	400
Pollution degree			3	2	3	2
Insulation between coil and contact set						
Type of insulation			Reinforced (8 mm)		Reinforced (8 mm)	
Overvoltage category			III		III	
Rated impulse voltage		kV (1.2/50 µs)	6		6	
Dielectric strength		V AC	4,000		4,000	
Insulation between adjacent contacts						
Type of insulation			—		Basic	
Overvoltage category			—		II	
Rated impulse voltage		kV (1.2/50 µs)	—		2.5	
Dielectric strength		V AC	—		2,000	
Insulation between open contacts						
Type of disconnection			Micro-disconnection		Micro-disconnection	
Dielectric strength		V AC/kV (1.2/50 µs)	1,000/1.5		1,000/1.5	
Conducted disturbance immunity						
Burst (5...50)ns, 5 kHz, on A1 - A2			EN 61000-4-4		level 4 (4 kV)	
Surge (1.2/50 µs) on A1 - A2 (differential mode)			EN 61000-4-5		level 3 (2 kV)	
Other data						
Bounce time: NO/NC		ms	2/5			
Vibration resistance (5...55)Hz: NO/NC		g	10/4 (1 changeover)		15/3 (2 changeover)	
Shock resistance		g	13			
Power lost to the environment	without contact current	W	0.6			
	with rated current	W	1.2 (40.11/31/41/51)		2 (40.61/52/40.11-2016)	
Recommended distance between relays mounted on PCB		mm	≥ 5			