Features

1 & 2 Pole relay range
40.31 - 1 Pole 10 A (3.5 mm pin pitch)
40.51 - 1 Pole 10 A (5 mm pin pitch)
40.52 - 2 Pole 8 A (5 mm pin pitch)

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

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

40.31	40.51	40.52
• 3.5 mm contact pin pitch • 1 Pole 10 A • PCB or 95 series sockets	• 5 mm contact pin pitch • 1 Pole 10 A • PCB or 95 series sockets	• 5 mm contact pin pitch • 2 Pole 8 A • PCB or 95 series sockets
Copper side view Pin length 5.3 mm for PCB or sockets	Copper side view Pin length 5.3 mm for PCB or sockets	Copper side view Pin length 5.3 mm for PCB or sockets

FOR UL RATINGS SEE:
"General technical information" page V

For outline drawing see page 10

		40.31	40.51	40.52
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	2,500	2,500	2,000
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	$10 \cdot 10^6$	$10 \cdot 10^6$	$10 \cdot 10^6$
Electrical life at rated load AC1	cycles	$200 \cdot 10^3$	$200 \cdot 10^3$	$100 \cdot 10^3$
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	1,000	1,000	1,000
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 Series - Miniature PCB/Plug-in relays 8 - 10 - 12 - 16 A

A

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
		Bistable version (1 coil) types: 40.31.6... 40.51.6... 40.52.6... 40.61.6... For wiring diagrams see page 9
For UL ratings see: "General technical information" page V For outline drawing see page 10	Copper side view Pin length 5.3 mm for PCB or sockets	Pin length 5.3 mm for PCB or sockets
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 cycles	$10 \cdot 10^6$	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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