

**Ultra-slim 1 Pole - 6 A relay**

**Printed circuit mount**

- direct or via PCB socket

**35 mm rail mount**

- via screw, screwless or push-in terminal sockets

- 1 Pole changeover contacts or 1 Pole normally open contact
- Ultra slim, 5 mm, package
- Sensitive DC coil - 170 mW (Dual AC/DC coil drive possible using 93 series sockets)
- UL Listing (certain relay/socket combinations)
- Cadmium Free contact materials
- 8/8 mm clearance/creepage distance
- 6 kV (1.2/50  $\mu$ s) insulation, coil-contacts

FOR UL RATINGS SEE:

"General technical information" page V

For outline drawing see page 5

**Contact specification**

Contact configuration

1 CO (SPDT)

1 CO (SPDT)

Rated current/  
Maximum peak current

A

6/10

6/10

Rated voltage/  
Maximum switching voltage

V AC

250/400

250/400

Rated load AC1

VA

1500

1500

Rated load AC15 (230 V AC)

VA

300

300

Single phase motor rating (230 V AC)

kW

0.185

0.185

Breaking capacity DC1: 30/110/220 V

A

6/0.2/0.12

6/0.2/0.12

Minimum switching load

mW (V/mA)

500 (12/10)

50 (5/2)

Standard contact material

AgNi

AgNi + Au

**Coil specification**

Nominal voltage ( $U_N$ )

V AC (50/60 Hz)

—

—

V DC

5 - 12 - 24 - 48 - 60

5 - 12 - 24 - 48 - 60

Rated power AC/DC

VA (50 Hz)/W

—/0.17

—/0.17

Operating range

AC

—

—

DC

(0.7...1.5) $U_N$

(0.7...1.5) $U_N$

Holding voltage

AC/DC

—/0.4  $U_N$

—/0.4  $U_N$

Must drop-out voltage

AC/DC

—/0.05  $U_N$

—/0.05  $U_N$

**Technical data**

Mechanical life AC/DC

cycles

—/10 · 10<sup>6</sup>

—/10 · 10<sup>6</sup>

Electrical life at rated load AC1

cycles

60 · 10<sup>3</sup>

60 · 10<sup>3</sup>

Operate/release time

ms

5/3

5/3

Insulation between coil  
and contacts (1.2/50  $\mu$ s)

kV

6 (8mm)

6 (8mm)

Dielectric strength

between open contacts

V AC

1000

1000

Ambient temperature range

°C

−40...+85

−40...+85

Environmental protection

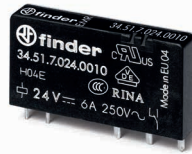
RT II

RT II

**Approvals** (according to type)



**34.51**

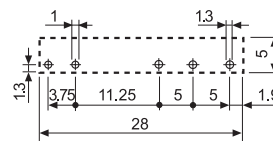
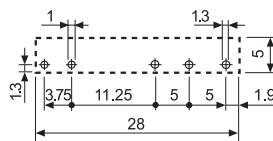
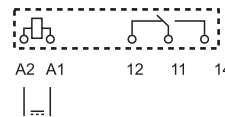
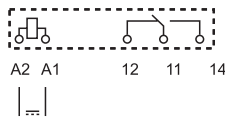


- 5 mm wide
- Low coil power
- PCB or 93 series sockets

**NEW 34.51-5010**



- 5 mm wide
- Low coil power
- PCB or 93 series sockets
- Contact AgNi + Au



Copper side view

Copper side view

**Ultra-slim - Solid State Relays**

**Printed circuit mount**

- direct or via PCB socket

**35 mm rail mount**

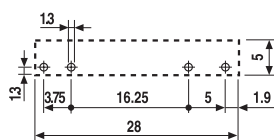
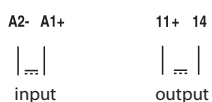
- via screw, screwless or push-in terminal sockets

- Single circuit output switching options
  - 2 A, 24 V DC
  - 0.1 A, 48 V DC
  - 2 A, 240 V AC
- Silent, high speed switching with long electrical life
- Ultra slim, 5 mm, package
- Sensitive DC Input circuits (Dual AC/DC input drive possible using 93 series sockets)
- UL Listing (certain relay/socket combinations)
- Wash tight: RT III
- 2500 V insulation, input-output

**34.81-9024**



- 2 A, 24 V DC output switching
- PCB or 93 series sockets

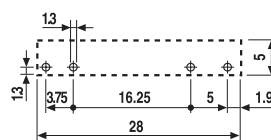
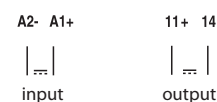
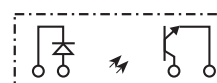


Copper side view

**34.81-7048**



- 0.1 A, 48 V DC output switching
- PCB or 93 series sockets

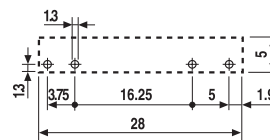
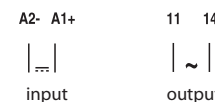


Copper side view

**34.81-8240**



- 2 A, 240 V AC output switching
- Zero crossing switching
- PCB or 93 series sockets



Copper side view

For outline drawing see page 5

**Output circuit**

Contact configuration	1 NO (SPST-NO)				1 NO (SPST-NO)		1 NO (SPST-NO)				
Rated current/ Maximum peak current (10 ms)	A	2/20				0.1/0.5		2/40			
Rated voltage/ Maximum blocking voltage	V	(24/33)DC				(48/60)DC		(240/—)AC			
Switching voltage range	V	(1.5...24)DC				(1.5...48)DC		(12...275)AC			
Repetitive peak off-state voltage	V <sub>pk</sub>	—				—		600			
Minimum switching current	mA	1				0.05		22			
Max. "OFF-state" leakage current	mA	0.001				0.001		1.5			
Max. "ON-state" voltage drop	V	0.12				1		1.6			

**Input circuit**

Nominal voltage	V DC	5	12	24	60	24	60	5	12	24	60
Rated power AC/DC	W	0.035	0.087	0.17	0.18	0.17	0.18	0.060	0.087	0.17	0.18
Operating range	V DC	35...12	8...17	16...30	35...72	16...30	35...72	35...10	8...17	16...30	35...72
Control current	mA	7	7.2	7	3	7	3	12	7.2	7	3
Release voltage	V DC	1	4	10	20	10	20	1	4	10	20
Impedance	Ω	715	1940	3200	21300	3200	21300	416	1940	3200	21300

**Technical data**

Operate/release time	ms	0.1/0.6*				0.04/0.6*		12/12*			
Dielectric strength between input/output	V	2500				2500		2500			
Ambient temperature range	°C	-20...+60				-20...+60		-20...+60			
Environmental protection		RT III				RT III		RT III			

**Approvals** (according to type)



\* Note: all technical data relates to using the relay directly on PCB or PCB socket type 93.11.

If the relay is used with 35 mm rail socket type 93.51, refer to the technical data of 38 Series; if used with types 93.60, 93.61, 93.62, 93.63, 93.64, 93.65, 93.66, 93.67, 93.68 and 93.69, refer to the technical data of the MasterINTERFACE 39 Series.