

**1 & 2 CO industrial style power relays**  
**For socket mount or direct connection via**  
**Faston connectors**

**Type 46.52**

- 2 CO 8 A

**Type 46.61**

- 1 CO 16 A

- AC coils & DC coils
- Available with: lockable test button, mechanical indicator & LED indicator
- 8 mm, 6 kV (1.2/50 µs) isolation, coil-contacts
- Cadmium free contacts
- 97 series 35 mm rail (EN 60715) Screw, Screwless or Push-in terminals, and PCB mount sockets
- Coil Indication and EMC suppression modules 99 series and Timer module 86.30 options
- Optional alternative mounting adaptors
- European Patent

FOR UL RATINGS SEE:

"General technical information" page V

For outline drawing see page 6

**Contact specification**

Contact configuration	2 CO (DPDT)	1 CO (SPDT)
Rated current/Maximum peak current	A 8/15	16/25*
Rated voltage/Maximum switching voltage	V AC 250/440	250/440
Rated load AC1	VA 2000	4000
Rated load AC15 (230 V AC)	VA 350	750
Single phase motor rating (230 V AC)	kW 0.37	0.55
Breaking capacity DC1: 30/110/220 V	A 6/0.5/0.15	12/0.5/0.15
Minimum switching load	mW (V/mA) 300 (5/5)	300 (5/5)
Standard contact material	AgNi	AgNi

**Coil specification**

Nominal voltage (U <sub>N</sub> )	V AC (50/60 Hz)	12 - 24 - 48 - 110 - 120 - 230 - 240
	V DC	12 - 24 - 48 - 110 - 125
Rated power	VA/W	1.2/0.5
Operating range	AC	(0.8...1.1)U <sub>N</sub>
	DC	(0.73...1.1)U <sub>N</sub>
Holding voltage	AC/DC	0.8 U <sub>N</sub> / 0.4 U <sub>N</sub>
Must drop-out voltage	AC/DC	0.2 U <sub>N</sub> / 0.1 U <sub>N</sub>

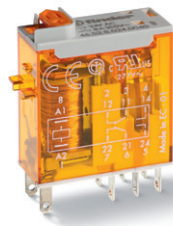
**Technical data**

Mechanical life AC/DC	cycles	10 · 10 <sup>6</sup>	10 · 10 <sup>6</sup>
Electrical life at rated load AC1	cycles	100 · 10 <sup>3</sup>	100 · 10 <sup>3</sup>
Operate/release time	ms	10/3	15/5
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...+70	-40...+70
Environmental protection		RT II	RT II

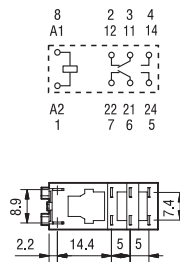
**Approvals** (according to type)



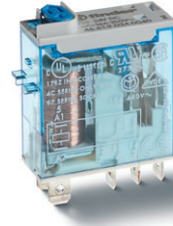
**46.52**



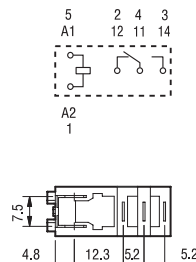
- 2 CO 8 A
- Plug-in/Solder terminals



**46.61**



- 1 CO 16 A
- Plug-in/Faston 187



\* With the AgSnO<sub>2</sub> material the maximum peak current is 80 A - 5 ms on normally open contact.

## Ordering information

Example: 46 series Miniature industrial relay, 1 CO, 24 V DC coil, lockable test button and mechanical indicator.

A

**4 6 . 6 1 . 9 . 0 2 4 . 0 0 4 0**

**Series** ————

**Type** ————  
5 = Spade/blade solder terminal (2.5 x 0.5)mm  
6 = Spade/blade terminal Faston 187 (4.8 x 0.5)mm

**No. of poles** ————  
1 = 1 pole, 16 A  
2 = 2 poles, 8 A

**Coil version** ————  
9 = DC  
8 = AC (50/60 Hz)

**Coil voltage** ————  
See coil specifications

**A: Contact material**  
0 = AgNi  
4 = AgSnO<sub>2</sub> (46.61 only)  
5 = AgNi + Au

**B: Contact circuit**  
0 = CO (nPDT)

**C: Options**  
2 = Mechanical indicator  
4 = Lockable test button + mechanical indicator  
54 = Lockable test button + LED (AC) + mechanical indicator  
74 = Lockable test button + double LED (DC non-polarized) + mechanical indicator

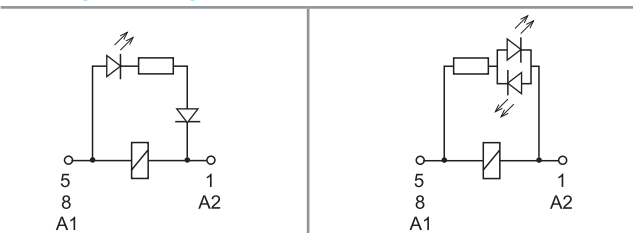
**D: Special versions**  
0 = Standard

**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
46.52	AC - DC	<b>0 - 5</b>	<b>0</b>	<b>2 - 4</b>	<b>0</b>
	AC	0 - 5	0	54	/
	DC	0 - 5	0	74	/
46.61	AC - DC	<b>0 - 4 - 5</b>	<b>0</b>	<b>2 - 4</b>	<b>0</b>
	AC	0 - 4 - 5	0	54	/
	DC	0 - 4 - 5	0	74	/

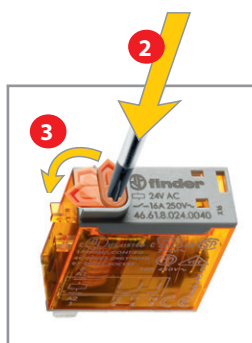
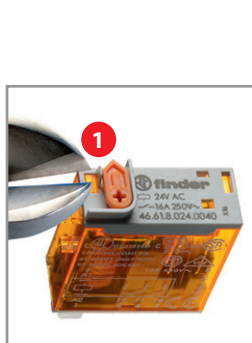
**Special versions for Rail Applications on request**

## Descriptions: Options



**C: Option 54**  
LED (AC)

**C: Option 74**  
LED (DC, non-polarized)



### Lockable test button and mechanical flag indicator (0040, 0054, 0074)

The dual-purpose Finder test button can be used in two ways:

**Case 1)** The plastic pip (located directly below the test button) remains intact. In this case, when the test button is pushed, the contacts operate. When the test button is released the contacts return to their former state.

**Case 2)** The plastic pip is broken-off (using an appropriate cutting tool). In this case, (in addition to the above function), when the test button is pushed and rotated, the contacts are latched in the operating state, and remain so until the test button is rotated back to its former position.

In both cases ensure that the test button actuation is swift and decisive.

