

Features

1 & 2 Pole relay interface modules,
15.8 mm wide

Ideal interface for PLC and electronic systems

48.61 - 1 Pole 16 A (screw terminal)
48.81 - 1 Pole 16 A (screwless terminal)
48.62 - 2 Pole 10 A (screw terminal)
48.82 - 2 Pole 10 A (screwless terminal)

- AC coils or DC sensitive coils
- Instant ejection of relay using plastic retaining clip
- Supply status indication and EMC coil suppression module as standard
- Identification label
- UL Listing (certain relay/socket combinations)
- 35 mm rail (EN 60715) mounting

48.61 / 48.62
Screw terminal



48.81 / 48.82
Screwless terminal



For outline drawing see page 7

Contact specification

Contact configuration	1 CO (SPDT)	2 CO (DPDT)
Rated current/Maximum peak current	16*/30	10/20
Rated voltage/Maximum switching voltage V AC	250/400	250/400
Rated load AC1	4,000	2,500
Rated load AC15 (230 V AC)	750	500
Single phase motor rating (230 V AC)	0.55	0.37
Breaking capacity DC1: 30/110/220V	16/0.3/0.12	10/0.3/0.12
Minimum switching load	500 (10/5)	300 (5/5)
Standard contact material	AgCdO	AgNi

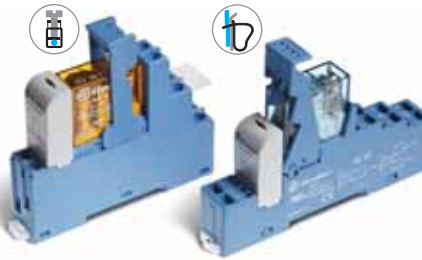
Coil specification

Nominal voltage (U_N)	V AC (50/60 Hz)	12 - 24 - 110 - 120 - 230	—
	V DC	12 - 24 - 125	12 - 24 - 125
Rated power AC/sens. DC	VA (50 Hz)/W	1.2/0.5	—/0.5
Operating range	AC	(0.8...1.1) U_N	—
	sens. DC	(0.8...1.5) U_N	(0.8...1.5) U_N
Holding voltage	AC/DC	0.8 U_N / 0.4 U_N	—/0.4 U_N
Must drop-out voltage	AC/DC	0.2 U_N / 0.1 U_N	—/0.1 U_N

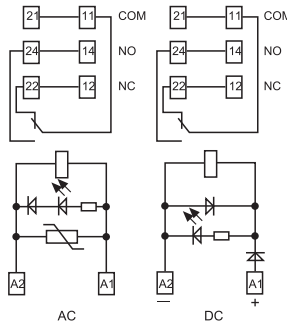
Technical data

Mechanical life AC/DC	cycles	10 · 10 ⁶ /20 · 10 ⁶	—/20 · 10 ⁶
Electrical life at rated load AC1	cycles	100 · 10 ³	100 · 10 ³
Operate/release time	ms	7/4 (AC) - 12/12 (DC)	12/12 (DC)
Insulation between coil and contacts (1.2/50 μ s)	kV	6 (8 mm)	6 (8 mm)
Dielectric strength between open contacts	V AC	1,000	1,000
Ambient temperature range	°C	−40...+70	−40...+70
Protection category		IP 20	IP 20

48.61/81

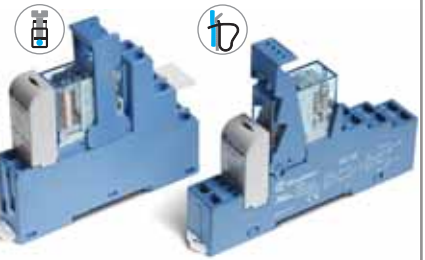


- 1 pole, 16 A
- Screw terminal and screwless terminal
- 35 mm rail (EN 60715) mounting

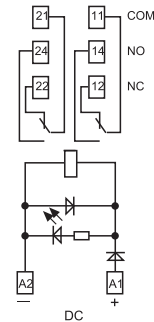


* For currents >10 A, contact terminals must be connected in parallel (21 with 11, 24 with 14, 22 with 12).

48.62/82



- 2 pole, 10 A
- Screw terminal and screwless terminal
- 35 mm rail (EN 60715) mounting



Ordering information

Example: 48 series, 35 mm rail (EN 60715) mount, screw terminal relay interface module, 2 CO (DPDT) 8 A contacts, 24 V sensitive DC coil, green LED + diode, 99.02 coil indication.

4 8 . 5 2 . 7 . 0 2 4 . 0 0 5 0

Series _____

Type _____

Screw terminal

1 = 35 mm rail (EN 60715) mount, safety relay

3 = 35 mm rail (EN 60715) mount

5 = 35 mm rail (EN 60715) mount

6 = 35 mm rail (EN 60715) mount

Screwless terminal

7 = 35 mm rail (EN 60715) mount

8 = 35 mm rail (EN 60715) mount

No. of poles _____

1 = 1 pole for 48.31, 10 A
48.61, 48.81, 16 A

2 = 2 pole for 48.12, 48.52, 48.72, 8 A
48.62, 48.82, 10 A
(48.62, 48.82 DC only)

Coil version _____

7 = Sensitive DC

8 = AC (50/60 Hz)

Coil voltage _____

See coil specifications

A: Contact material

0 = Standard AgNi for 48.31/52/62/72/82 AgCdO, Standard for 48.61/81

1 = AgNi, for 48.12

4 = AgSnO₂, for 48.61/62/81/82 only

5 = AgNi + Au (5 µm), for 48.31/52/72 only

B: Contact circuit

0 = CO (nPDT)

D: Special versions

0 = Standard

2 = Standard (for 48.12 only)

C: Options

0 = Standard (for 48.12 only)

5 = Standard for DC: green LED + diode (polarity +A1)

6 = Standard for AC: green LED + Varistor

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
48.12	DC	1	0	0	2
48.31/52/72	AC	0 - 2 - 5	0	6	0
48.31/52/72	DC	0 - 2 - 5	0	5	0
48.61/81	AC	0 - 4	0	6	0
48.61/81	DC	0 - 4	0	5	0
48.62/82	DC	0 - 4	0	5	0

Technical data

Insulation		48.12/31/61/62	48.52	48.12/31/61/62
Insulation according to EN 61810-1	insulation rated voltage	V 250	250	400
	rated impulse withstand voltage	kV 4	4	4
	pollution degree	3	2	2
	overvoltage category	III	III	III
Insulation between coil and contacts (1.2/50 µs)		kV 6 (8 mm)		
Dielectric strength between open contacts		V AC 1,000; 1,500 (48.12)		
Dielectric strength between adjacent contacts		V AC 2,000 (48.52); 2,500 (48.12/62)		
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; 2/10 (48.12)		
Vibration resistance (5...55)Hz: NO/NC		g 10/4 (for 1 pole)		15/3; 20/6 (48.12) for 2 pole
Power lost to the environment	without contact current	W 0.7		
	with rated current	W 1.2 (48.12/31)	1.3 (48.52/72)	1.2 (48.61/62/81/82)
Wire strip length		mm 8		
Screw torque		Nm 0.5		
Max. wire size		Screw terminal		Screwless terminal
		solid cable	stranded cable	solid cable
	mm ²	1x6 / 2x2.5	1x4 / 2x2.5	2x(0.2...1.5)
	AWG	1x10 / 2x14	1x12 / 2x14	2x(24...18)