

Features

1 & 2 Pole relay interface modules,
15.8 mm wide.

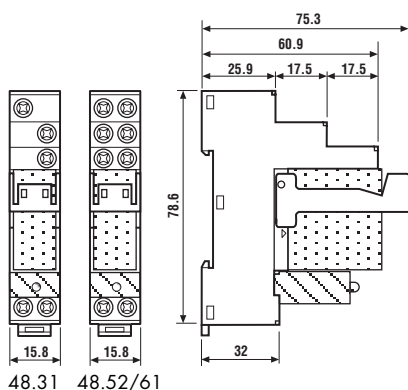
Ideal interface for PLC and electronic systems

48.31 - 1 Pole 10 A

48.52 - 2 Pole 8 A

48.61 - 1 Pole 16 A

- 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 Listed
- 35 mm rail (EN 50022) mounting



48.31



- 1 pole 10 A
- 35 mm rail mounting

48.52

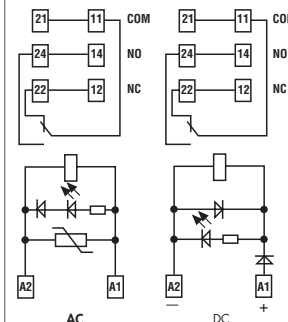
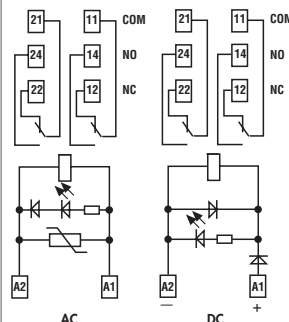
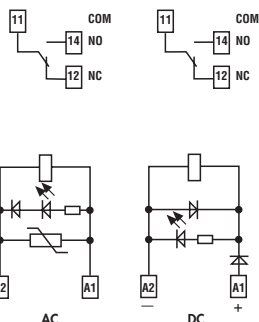


- 2 pole 8 A
- 35 mm rail mounting

48.61



- 1 pole 16 A
- 35 mm rail mounting



48

Contact specification		48.31	48.52	48.61
Contact configuration		1 CO (SPDT)	2 CO (DPDT)	1 CO (SPDT)
Rated current/Maximum peak current	A	10/20	8/15	16/30
Rated voltage/Maximum switching voltage	V AC	250/400	250/250	250/400
Rated load AC1	VA	2,500	2,000	4,000
Rated load AC15 (230 V AC)	VA	500	400	750
Single phase motor rating (230 V AC)	kW	0.37	0.3	0.55
Breaking capacity DC1: 30/110/220V	A	10/0.3/0.12	8/0.3/0.12	16/0.3/0.12
Minimum switching load	mW (V/mA)	300 (5/5)	300 (5/5)	500 (10/5)
Standard contact material		AgNi	AgNi	AgCdO
Coil specification		48.31	48.52	48.61
Nominal voltage (U_N)	V AC (50/60 Hz)	12 - 24 - 110 - 120 - 230	12 - 24 - 110 - 120 - 230	12 - 24 - 110 - 120 - 230
	V DC	12 - 24 - 125	12 - 24 - 125	12 - 24 - 125
Rated power AC/sens. DC	VA (50 Hz)/W	1.2/0.5	1.2/0.5	1.2/0.5
Operating range	AC	$(0.8 \dots 1.1) U_N$	$(0.8 \dots 1.1) U_N$	$(0.8 \dots 1.1) U_N$
	sens. DC	$(0.73 \dots 1.75) U_N$	$(0.73 \dots 1.75) U_N$	$(0.8 \dots 1.5) U_N$
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		48.31	48.52	48.61
Mechanical life AC/DC	cycles	$10 \cdot 10^6 / 20 \cdot 10^6$	$10 \cdot 10^6 / —$	$10 \cdot 10^6 / 20 \cdot 10^6$
Electrical life at rated load AC1	cycles	$200 \cdot 10^3$	$100 \cdot 10^3$	$100 \cdot 10^3$
Operate/release time	ms	7/4 (AC) - 12/12 (DC)	7/4 (AC) - 12/12 (DC)	7/4 (AC) - 12/12 (DC)
Insulation between coil and contacts (1.2/50 μ s)	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...+70	-40...+70	-40...+70
Protection category		IP 20	IP 20	IP 20
Approvals relay (according to type)				

Features

**2 Pole relay interface module,
15.8 mm wide.**

Ideal interface for PLC and electronic systems

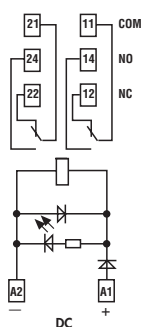
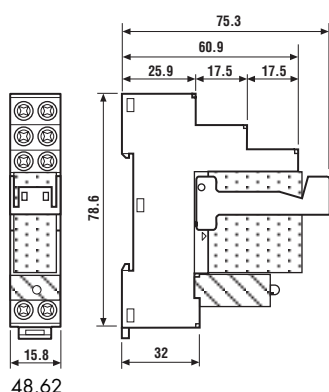
48.62 - 2 Pole 10 A

- DC sensitive coil
- Instant ejection of relay using plastic retaining clip
- Supply status indication and EMC coil suppression module as standard
- Identification label
- Cadmium Free contacts
- UL Listed
- 35 mm rail (EN 50022) mounting

48.62



- 2 pole 10 A
- 35 mm rail mounting



48

Contact specification

Contact configuration		2 CO (DPDT)
Rated current/Maximum peak current	A	10/20
Rated voltage/Maximum switching voltage	V AC	250/400
Rated load AC1	VA	2,500
Rated load AC15 (230 V AC)	VA	500
Single phase motor rating (230 V AC)	kW	0.37
Breaking capacity DC1: 30/110/220V	A	10/0.3/0.12
Minimum switching load	mW (V/mA)	300 (5/5)
Standard contact material		AgNi

Coil specification

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

Technical data

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

Approvals relay (according to type)



Ordering information

Example: 48 series, 35 mm rail (EN 50022) mount relay interface module, 2 CO (DPDT) 8 A contacts, 24 V sensitive DC coil, green LED + diode.

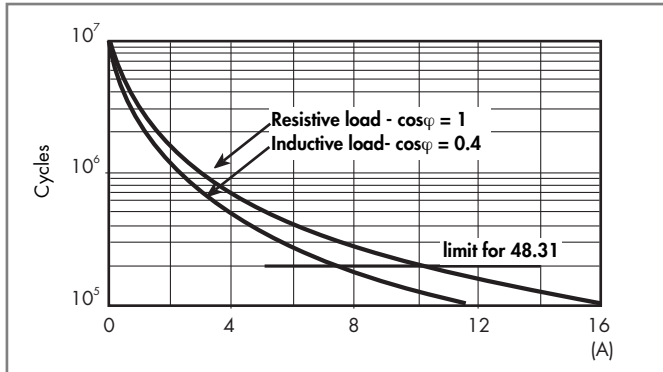
4	8	5	2	7	0	2	4	A	B	C	D
Series					A: Contact material		B: Contact circuit		C: Options		D: Special versions
3 = 35 mm rail mount 5 = 35 mm rail mount 6 = 35 mm rail mount					0 = Standard		0 = CO (nPDT)		5 = Standard for DC: green LED + diode (polarity +A1) 6 = Standard for AC: green LED + Varistor		0 = Standard
No. of poles											
1 = 1 pole for 48.31, 10 A 48.61, 16 A 2 = 2 pole for 48.52, 8 A 48.62, 10 A, DC only											
Coil version											
7 = Sensitive DC 8 = AC (50/60 Hz)											
Coil voltage											
see coil specifications											

Technical data

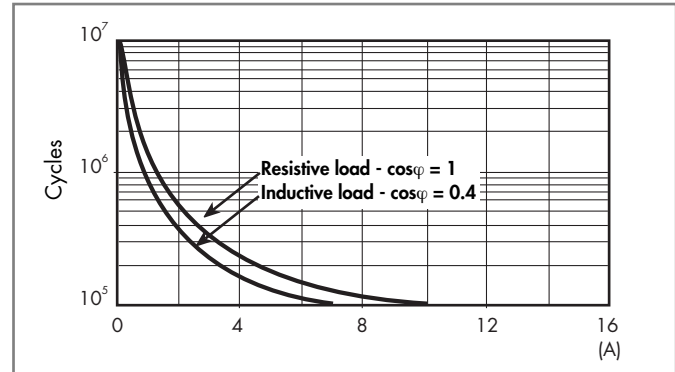
Insulation		48.31/61/62	48.52	48.31/52/61/62	
Insulation according to EN 61810-1 ed. 2	insulation rated voltage	V	250	250	400
	rated impulse withstand voltage	kV	4	4	4
	pollution degree		3	2	2
	overvoltage category		III	III	III
Insulation between coil and contacts (1.2/50 μs)		kV	6 (8 mm)		
Dielectric strength between open contacts		V AC	1,000		
Dielectric strength between adjacent contacts		V AC	2,000 (48.52); 2,500 (48.62)		
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		
Vibration resistance (5...55)Hz, max. ± 1 mm: NO/NC		g/g	10/4 (for 1 pole)		15/3 (for 2 pole)
Power lost to the environment	without contact current	W	0.7		
	with rated current	W	1.2 (48.31)	1.3 (48.52)	1.2 (48.61) 1.2 (48.62)
Wire strip length		mm	8		
 Screw torque		Nm	0.5		
Max. wire size		solid cable	stranded cable		
	mm²	1x6 / 2x2.5		1x4 / 2x2.5	
	AWG	1x10 / 2x14		1x12 / 2x14	

Contact specification

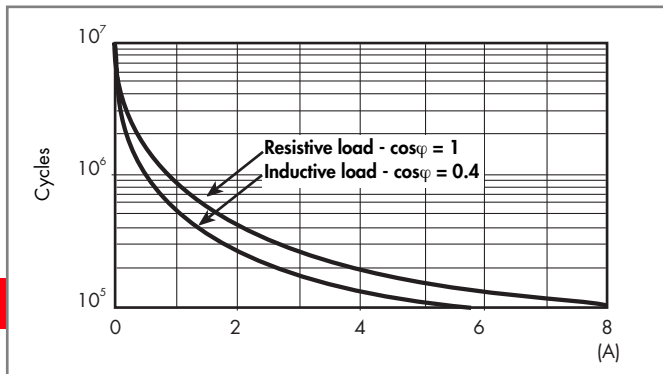
F 48 - Electrical life (AC) v contact current
Types 48.31/61



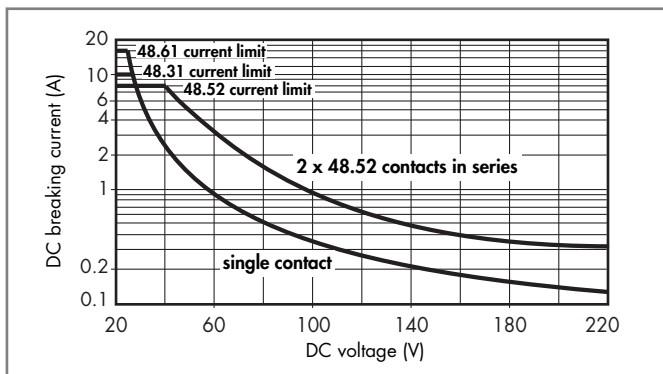
F 48 - Electrical life (AC) v contact current
Type 48.62



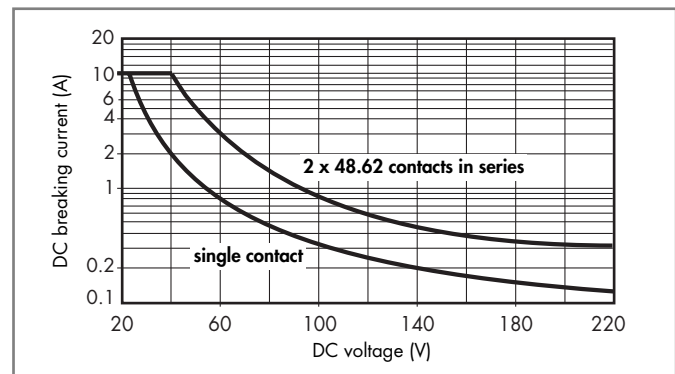
F 48 - Electrical life (AC) v contact current
Types 48.52



H 48 - Maximum DC1 breaking capacity
Types 48.31/52/61



H 48 - Maximum DC1 breaking capacity
Type 48.62



- When switching a resistive load (DC1) having voltage and current values under the curve, an electrical life of $\geq 100 \cdot 10^3$ can be expected.
- In the case of DC13 loads, the connection of a diode in parallel with the load will permit a similar electrical life as for a DC1 load. Note: the release time for the load will be increased.

- When switching a resistive load (DC1) having voltage and current values under the curve, an electrical life of $\geq 100 \cdot 10^3$ can be expected.
- In the case of DC13 loads, the connection of a diode in parallel with the load will permit a similar electrical life as for a DC1 load. Note: the release time for the load will be increased.

Coil specifications

DC coil data (0.5 W sensitive)

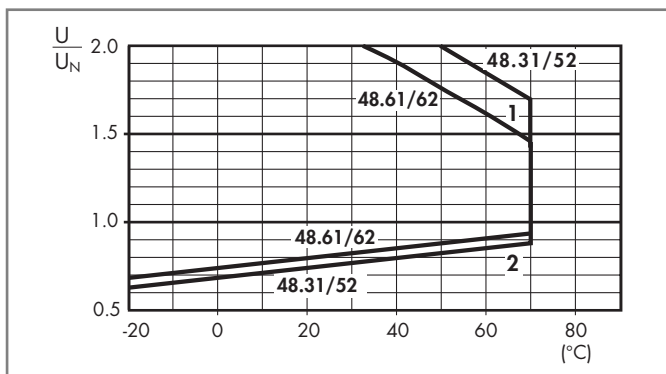
Nominal voltage U_N V	Coil code	Operating range		Rated coil consumption I at U_N mA
		U_{min}^* V	U_{max} V	
12	7.012	8.8	21	41
24	7.024	17.5	42	22.2
125	7.125	92	218	4

* $U_{min} = 0.8 U_N$ for 48.61 and 48.62

AC coil data

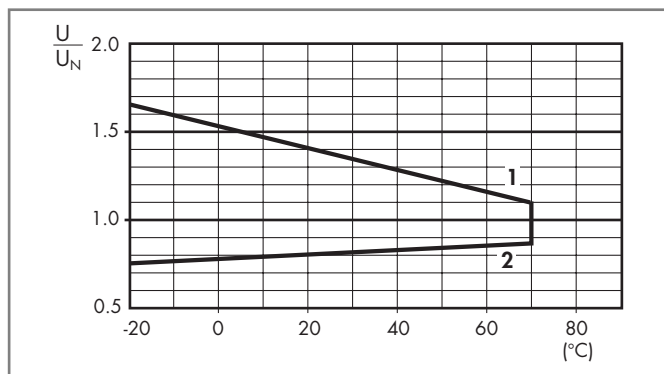
Nominal voltage U_N V	Coil code	Operating range		Rated coil consumption I at U_N (50Hz) mA
		U_{min} V	U_{max} V	
12	8.012	9.6	13.2	90.5
24	8.024	19.2	26.4	46
110	8.110	88	121	10.1
120	8.120	96	132	11.8
230	8.230	184	253	7.0

R 48 - DC coil operating range v ambient temperature



- 1 - Max. permitted coil voltage.
2 - Min. pick-up voltage with coil at ambient temperature.

R 48 - AC coil operating range v ambient temperature



- 1 - Max. permitted coil voltage.
2 - Min. pick-up voltage with coil at ambient temperature.

48

Combinations

Code	Type of socket	Type of relay	Module	Retaining clip
48.31	95.03	40.31	99.02	095.01
48.52	95.05	40.52	99.02	095.01
48.61	95.05	40.61	99.02	095.01
48.62	95.05	44.62	99.02	095.01

Accessories



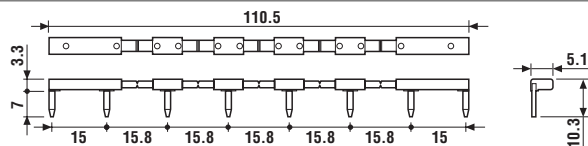
095.18

8-way jumper link

Rated values

095.18

10 A - 250 V



060.72

Sheet of marker tags, plastic, 72 tags, 6x12 mm

060.72

Packaging codes

How to code and identify retaining clip and packaging options for relay interface module.

Code options according to the last three letters:

