

**2 CO forcibly guided contacts relay interface modules, 15.8 mm wide**

**Type 48.12**

- 2 CO 8 A
- Screw terminals
- Relay with forcibly guided contacts according to EN 50205 Type B
- 35 mm rail (EN 60715) mounting
- Cadmium-free contact material

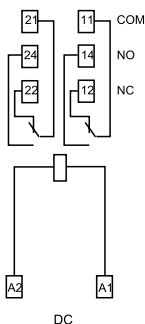
48.12  
Screw terminal



**48.12**



- 2 CO 8 A
- Forcibly guided contacts relay
- Screw terminals



According to EN 50205 only 1 NO and 1 NC (11-14 and 21-22 or 11-12 and 21-24) shall be used as forcibly guided contacts.

For outline drawing see page 9

**Contact specification**

|   |           |             |
|---|-----------|-------------|
| Contact configuration                   |           | 2 CO (DPDT) |
| Rated current/Maximum peak current      | A         | 8/15        |
| Rated voltage/Maximum switching voltage | V AC      | 250/400     |
| Rated load AC1                          | VA        | 2000        |
| Rated load AC15 (230 V AC)              | VA        | 500         |
| Single phase motor rating (230 V AC)    | kW        | 0.37        |
| Breaking capacity DC1: 30/110/220 V     | A         | 8/0.65/0.2  |
| Minimum switching load                  | mW (V/mA) | 500 (10/10) |
| Standard contact material               |           | AgNi        |

**Coil specification**

|                                   |                 |                            |
|-----------------------------------|-----------------|----------------------------|
| Nominal voltage (U <sub>N</sub> ) | V AC (50/60 Hz) | —                          |
|                                   | V DC            | 12 - 24                    |
| Rated power AC/DC                 | VA (50 Hz)/W    | —/0.7                      |
| Operating range                   | AC              | —                          |
|                                   | DC              | (0.75...1.2)U <sub>N</sub> |
| Holding voltage                   | AC/DC           | —/0.4 U <sub>N</sub>       |
| Must drop-out voltage             | AC/DC           | —/0.1 U <sub>N</sub>       |

**Technical data**

|  |        |                        |
|--|--------|------------------------|
| Mechanical life AC/DC                            | cycles | —/10 · 10 <sup>6</sup> |
| Electrical life at rated load AC1                | cycles | 100 · 10 <sup>3</sup>  |
| Operate/release time                             | ms     | 10/4                   |
| Insulation between coil and contacts (1.2/50 µs) | kV     | 6 (8 mm)               |
| Dielectric strength between open contacts        | V AC   | 1500                   |
| Ambient temperature range                        | °C     | -40...+70              |
| Protection category                              |        | IP 20                  |

**Approvals relay** (according to type)



B

**1 CO relay interface modules,  
15.8 mm wide**  
**Ideal interface for PLC and electronic systems**

**Type 48.P3**  
- 1 CO 10 A  
- Push-in terminals

**Type 48.31**  
- 1 CO 10 A  
- Screw terminals

- AC coils or DC sensitive coils
- Supply status indication and EMC coil suppression module as standard
- Identification label
- UL Listing (certain relay/socket combinations)
- 35 mm rail (EN 60715) mounting
- Cadmium-free contact material

48.P3  
Push-in terminal

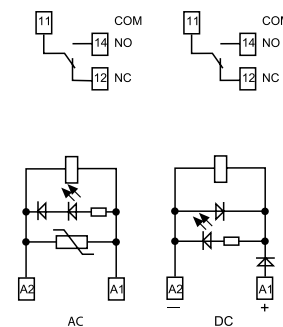
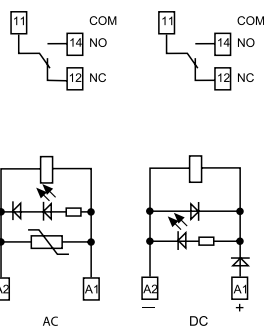


48.31  
Screw terminal



- 1 CO 10 A
- Push-in terminals

- 1 CO 10 A
- Screw terminals



For outline drawing see page 9

**Contact specification**

|   |           |             |             |
|---|-----------|-------------|-------------|
| Contact configuration                       |           | 1 CO (SPDT) | 1 CO (SPDT) |
| Rated current/Maximum peak current          | A         | 10/20       | 10/20       |
| Rated voltage/<br>Maximum switching voltage | V AC      | 250/400     | 250/400     |
| Rated load AC1                              | VA        | 2500        | 2500        |
| Rated load AC15 (230 V AC)                  | VA        | 500         | 500         |
| Single phase motor rating (230 V AC)        | kW        | 0.37        | 0.37        |
| Breaking capacity DC1: 30/110/220 V         | A         | 10/0.3/0.12 | 10/0.3/0.12 |
| 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 - 110 - 120 - 230               | 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                                 | 1.2/0.5                                 |
| Operating range                   | AC              | (0.8...1.1)U <sub>N</sub>               | (0.8...1.1)U <sub>N</sub>               |
|                                   | sens. DC        | (0.73...1.5)U <sub>N</sub>              | (0.73...1.5)U <sub>N</sub>              |
| Holding voltage                   | AC/DC           | 0.8 U <sub>N</sub> / 0.4 U <sub>N</sub> | 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> | 0.2 U <sub>N</sub> / 0.1 U <sub>N</sub> |

**Technical data**

|  |        |                       |                       |
|--|--------|-----------------------|-----------------------|
| Mechanical life                                  | cycles | 10 · 10 <sup>6</sup>  | 10 · 10 <sup>6</sup>  |
| Electrical life at rated load AC1                | cycles | 200 · 10 <sup>3</sup> | 200 · 10 <sup>3</sup> |
| Operate/release time                             | ms     | 7/4 (AC) - 12/12 (DC) | 7/4 (AC) - 12/12 (DC) |
| 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             |
| Protection category                              |        | IP 20                 | IP 20                 |

**Approvals relay** (according to type)

