

**1 & 2 CO relay interface modules,  
15.8 mm wide with Push-in terminal**  
**Ideal interface for PLC and electronic systems**

**Type 4C.P1**

- 1 CO 10 A

**Type 4C.P2**

- 2 CO 8 A

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

4C.P1 / 4C.P2  
Push-in terminals



For outline drawing see page 5

**Contact specification**

|   |           |             |             |
|---|-----------|-------------|-------------|
| Contact configuration                       |           | 1 CO (SPDT) | 2 CO (DPDT) |
| Rated current/Maximum peak current          | A         | 10/25       | 8/15        |
| Rated voltage/<br>Maximum switching voltage | V AC      | 250/440     | 250/440     |
| Rated load AC1                              | VA        | 4000        | 2000        |
| Rated load AC15 (230 V AC)                  | VA        | 750         | 350         |
| Single phase motor rating (230 V AC)        | kW        | 0.55        | 0.37        |
| Breaking capacity DC1: 30/110/220 V         | A         | 10/0.5/0.15 | 6/0.5/0.15  |
| Minimum switching load                      | mW (V/mA) | 300 (5/5)   | 300 (5/5)   |
| Standard contact material                   |           | AgNi        | AgNi        |

**Coil specification**

|                           |                 |                           |                           |
|---------------------------|-----------------|---------------------------|---------------------------|
| Nominal voltage ( $U_N$ ) | 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/DC         | VA (50 Hz)/W    | 1.2/0.5                   | 1.2/0.5                   |
| Operating range           | AC              | $(0.8 \dots 1.1) U_N$     | $(0.8 \dots 1.1) U_N$     |
|                           | DC              | $(0.73 \dots 1.1) U_N$    | $(0.73 \dots 1.1) U_N$    |
| Holding voltage           | AC/DC           | $0.8 U_N / 0.4 U_N$       | $0.8 U_N / 0.4 U_N$       |
| Must drop-out voltage     | AC/DC           | $0.2 U_N / 0.1 U_N$       | $0.2 U_N / 0.1 U_N$       |


**Technical data**

|   |              |                        |                        |
|---|--------------|------------------------|------------------------|
| Mechanical life AC/DC                                 | cycles       | $10 \cdot 10^6$        | $10 \cdot 10^6$        |
| Electrical life at rated load AC1                     | cycles       | $100 \cdot 10^3$       | $100 \cdot 10^3$       |
| Operate/release time                                  | ms           | 15/5 (AC) - 15/12 (DC) | 10/3 (AC) - 10/10 (DC) |
| Insulation between coil and contacts (1.2/50 $\mu$ s) | kV           | 6 (8 mm)               | 6 (8 mm)               |
| Dielectric strength between open contacts             | V AC         | 1000                   | 1000                   |
| Ambient temperature range                             | $^{\circ}$ C | -40...+70              | -40...+70              |
| Protection category                                   |              | IP 20                  | IP 20                  |

**Approvals - relay** (according to type)

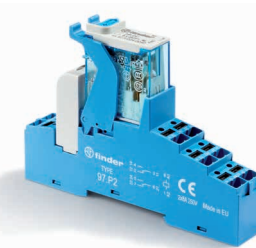


**NEW 4C.P1**

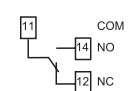
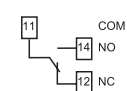


- 1 CO 10 A
- Push-in terminals

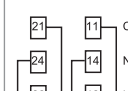
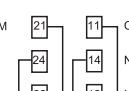
**NEW 4C.P2**



- 2 CO 8 A
- Push-in terminals

AC      DC

AC      DC

**1 & 2 CO relay interface modules,  
15.8 mm wide with screw terminal**  
**Ideal interface for PLC and electronic systems**

**Type 4C.01**

- 1 CO 16 A

**Type 4C.02**

- 2 CO 8 A

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

4C.01 / 4C.02

Screw terminals



For outline drawing see page 5

**Contact specification**

|   |           |             |             |
|---|-----------|-------------|-------------|
| Contact configuration                       |           | 1 CO (SPDT) | 2 CO (DPDT) |
| Rated current/Maximum peak current          | A         | 16/25       | 8/15        |
| Rated voltage/<br>Maximum switching voltage | V AC      | 250/440     | 250/440     |
| Rated load AC1                              | VA        | 4000        | 2000        |
| Rated load AC15 (230 V AC)                  | VA        | 750         | 350         |
| Single phase motor rating (230 V AC)        | kW        | 0.55        | 0.37        |
| Breaking capacity DC1: 30/110/220 V         | A         | 16/0.5/0.15 | 6/0.5/0.15  |
| 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 - 110 - 120 - 230               | 12 - 24 - 110 - 120 - 230               |
|                                   | V DC            | 12 - 24 - 125                           | 12 - 24 - 125                           |
| Rated power AC/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>               |
|                                   | DC              | (0.73...1.1)U <sub>N</sub>              | (0.73...1.1)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 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     | 15/5 (AC) - 15/12 (DC)               | 10/3 (AC) - 10/10 (DC) |
| Insulation between coil<br>and contacts (1.2/50 μs) | kV     | 6 (8 mm)                             | 6 (8 mm)               |
| Dielectric strength<br>between open contacts        | V AC   | 1000                                 | 1000                   |
| Ambient temperature range                           | °C     | ≤ 12 A: -40...+70 / >12 A: -40...+50 | -40...+70              |
| Protection category                                 |        | IP 20                                | IP 20                  |

**Approvals - relay** (according to type)



**4C.01**

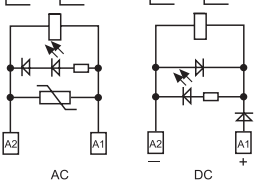
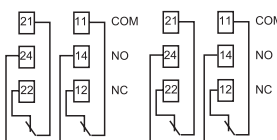
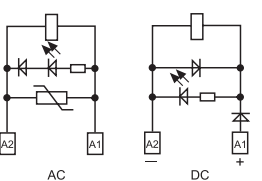


- 1 CO 16 A
- Screw terminals

**4C.02**



- 2 CO 8 A
- Screw terminals



## Ordering information

Example: 4C series, 35 mm rail (EN 60715) mount, Push-in terminal relay interface module, 1 CO 10 A contacts, 24 V DC coil, green LED + diode.

|                     |  |                          |   |          |                   |  |
|---------------------|--|--------------------------|---|----------|-------------------|--|
|                     | <b>4 C . P</b>   | <b>1 . 9 . 0 2 4 . 0</b> | <b>A</b>  | <b>B</b> | <b>C</b>          | <b>D</b>   |
| <b>Series</b>       |  |                          | <b>A: Contact material</b>                          |          |                   | <b>D: Special versions</b>   |
| <b>Type</b>         | 0 = 35 mm rail (EN 60715) mount<br>screw terminal socket<br>P = 35 mm rail (EN 60715) mount<br>Push-in terminal socket |                          | 0 = AgNi<br>4 = AgSnO <sub>2</sub><br>5 = AgNi + Au |          |                   | 0 = Standard   |
| <b>No. of poles</b> | 1 = 1 pole<br>2 = 2 pole   |                          | <b>B: Contact circuit</b>                           |          | <b>C: Options</b> | 5 = Standard for DC:<br>green LED + diode (polarity +A1)<br>6 = Standard for AC:<br>green LED + Varistor |
| <b>Coil version</b> | 8 = AC (50/60 Hz)<br>9 = DC  |                          | 0 = CO (nPDT)                                       |          |                   |  |
| <b>Coil voltage</b> | See coil specifications  |                          |   |          |                   |  |

**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        |
|-------|--------------|------------------|----------|----------|----------|
| 4C.02 | AC           | <b>0 - 5</b>     | <b>0</b> | <b>6</b> | <b>0</b> |
| 4C.P2 | DC           | <b>0 - 5</b>     | <b>0</b> | <b>5</b> | <b>0</b> |
| 4C.01 | AC           | <b>0 - 4 - 5</b> | <b>0</b> | <b>6</b> | <b>0</b> |
| 4C.P1 | DC           | <b>0 - 4 - 5</b> | <b>0</b> | <b>5</b> | <b>0</b> |

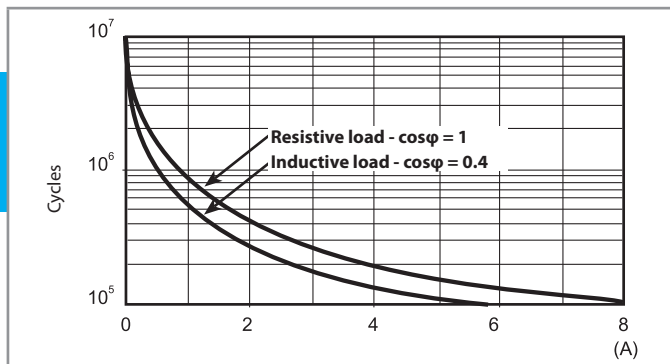
## Technical data

| Insulation                                       |                                 |                 |                    |                    |
|--|---------------------------------|-----------------|--------------------|--------------------|
| Insulation according to EN 61810-1               | insulation rated voltage        | V               | 250                | 440                |
|  | rated impulse withstand voltage | kV              | 4                  | 4                  |
|  | pollution degree                |                 | 3                  | 2                  |
|  | overvoltage category            |                 | III                | III                |
| Insulation between coil and contacts (1.2/50 μs) |                                 | kV              | 6 (8 mm)           |                    |
| Dielectric strength between open contacts        |                                 | V AC            | 1000               |                    |
| Dielectric strength between adjacent contacts    |                                 | V AC            | 2000               |                    |
| 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              | 2/6 (4C.01/P1)     | 1/4 (4C.02/P2)     |
| Vibration resistance (10...150)Hz: NO/NC         |                                 | g               | 20/12              |                    |
| Power lost to the environment                    | without contact current         | W               | 0.6                |                    |
|  | with rated current              | W               | 1.6 (4C.01/P1)     | 2 (4C.02/P2)       |
| Terminals  |                                 |                 |                    |                    |
| Wire strip length                                |                                 | mm              | <b>4C.01/4C.02</b> | <b>4C.P1/4C.P2</b> |
| Screw torque                                     |                                 | Nm              | 0.8                | —                  |
| Max. wire size                                   |                                 |                 | solid cable        | stranded cable     |
|  |                                 | mm <sup>2</sup> | 1 x 6 / 2 x 2.5    | 1 x 4 / 2 x 2.5    |
|  |                                 | AWG             | 1 x 10 / 2 x 14    | 1 x 12 / 2 x 14    |
|  |                                 |                 | solid cable        | stranded cable     |
|  |                                 |                 | 2 x (0.5...1.5)    | 2 x (0.5...1.5)    |
|  |                                 |                 | 2 x (21...18)      | 2 x (21...18)      |

## Contact specification

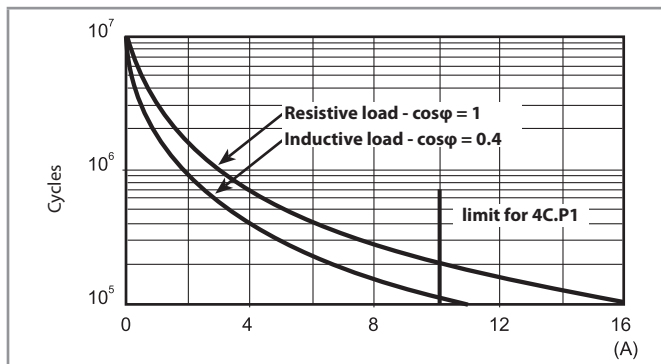
### F 4C - Electrical life (AC) v contact current

Types 4C.02/P2

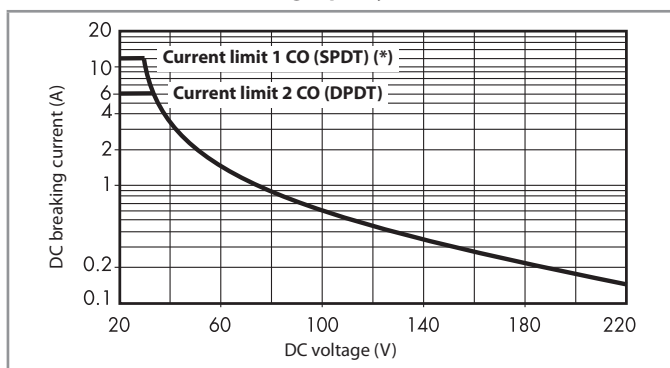


### F 4C - Electrical life (AC) v contact current

Types 4C.01/P1



### H 4C - Maximum DC1 breaking capacity



(\*) Type 4C.01 = 12 A, Type 4C.P1 = 10 A

- 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

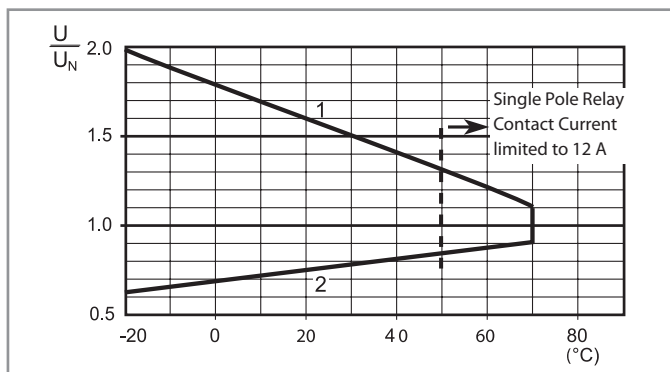
### DC coil data

| Nominal voltage<br>$U_N$ | Coil code | Operating range |           | Resistance<br>$R$ | Rated coil consumption<br>$I$ at $U_N$ |
|--------------------------|-----------|-----------------|-----------|-------------------|--|
|                          |           | $U_{min}$       | $U_{max}$ |                   |  |
| V                        |           | V               | V         | $\Omega$          | mA                                     |
| 12                       | 9.012     | 8.8             | 13.2      | 300               | 40                                     |
| 24                       | 9.024     | 17.5            | 26.4      | 1200              | 20                                     |
| 125                      | 9.125     | 91.2            | 138       | 32000             | 3.9                                    |

### AC coil data

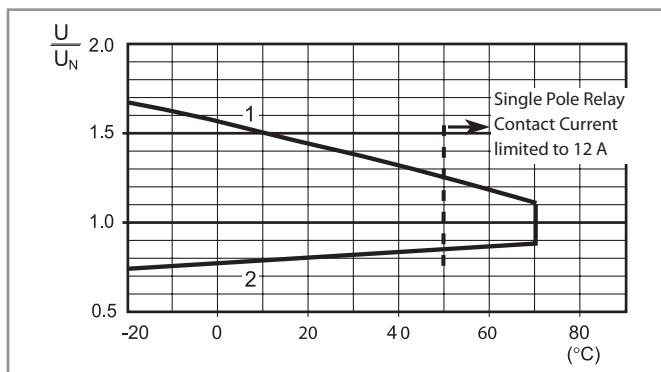
| Nominal voltage<br>$U_N$ | Coil code | Operating range |           | Resistance<br>$R$ | Rated coil consumption<br>$I$ at $U_N$ |
|--------------------------|-----------|-----------------|-----------|-------------------|--|
|                          |           | $U_{min}$       | $U_{max}$ |                   |  |
| V                        |           | V               | V         | $\Omega$          | mA                                     |
| 12                       | 8.012     | 9.6             | 13.2      | 80                | 90                                     |
| 24                       | 8.024     | 19.2            | 26.4      | 320               | 45                                     |
| 110                      | 8.110     | 88              | 121       | 6900              | 9.4                                    |
| 120                      | 8.120     | 96              | 132       | 9000              | 8.4                                    |
| 230                      | 8.230     | 184             | 253       | 28000             | 5                                      |

### R 4C - DC coil operating range v ambient temperature



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

### R 4C - AC coil operating range v ambient temperature



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

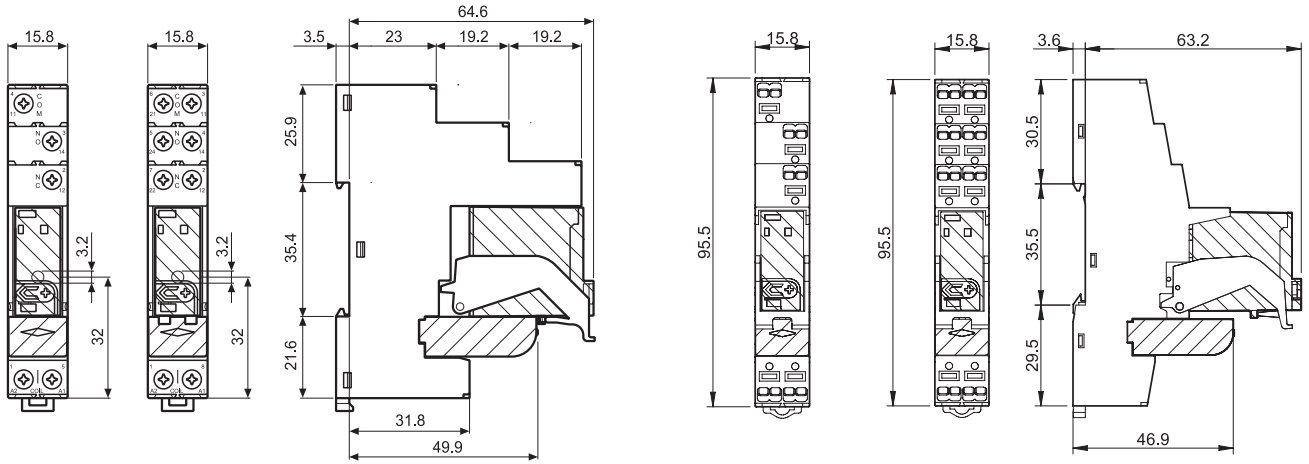
----- Temperature limit for the single pole version under full 16 A contact current.

**Combinations**

| Code  | Type of socket | Type of relay | Module | Retaining clip |
|-------|----------------|---------------|--------|----------------|
| 4C.P1 | 97.P1          | 46.61         | 99.02  | 097.01         |
| 4C.P2 | 97.P2          | 46.52         | 99.02  | 097.01         |
| 4C.01 | 97.01          | 46.61         | 99.02  | 097.01         |
| 4C.02 | 97.02          | 46.52         | 99.02  | 097.01         |

Certain relay/socket combinations

**Outline drawing**



4C.01 / 4C.02  
Screw terminals



4C.P1 / 4C.P2  
Push-in terminals

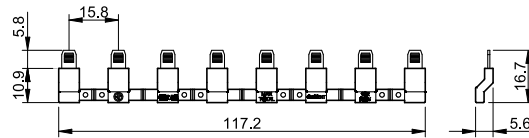


**Accessories**



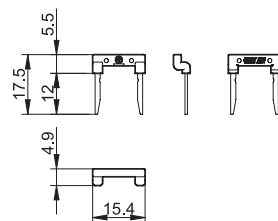
**097.58**

|   |              |
|---|--------------|
| <b>8-way jumper link</b> for type 4C.P1 and 4C.P2 | 097.58       |
| Rated values                                      | 10 A - 250 V |



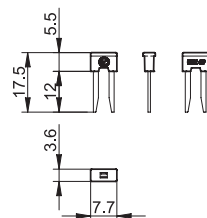
**097.52**

|   |              |
|---|--------------|
| <b>2-way jumper link</b> for type 4C.P1 and 4C.P2 | 097.52       |
| Rated values                                      | 10 A - 250 V |



**097.42**

|   |              |
|---|--------------|
| <b>2-way jumper link</b> for type 4C.P1 and 4C.P2 | 097.42       |
| Rated values                                      | 10 A - 250 V |



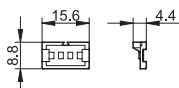
### Accessories



097.00

Marker tag holder for type 4C.P1/P2/01/02

097.00

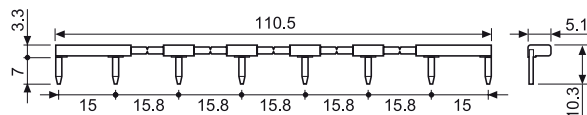


8-way jumper link for 4C.01 and 4C.02

095.18 (blue)

Rated values

10 A - 250 V



095.18



060.48

Sheet of marker tags (CEMBRE'S Thermal transfer printers), marker tag holder 097.00 or on the relay 46 series, plastic, 48 tags, 6 x 12 mm

060.48

### Packaging codes

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

Example:

4 C . P 1 . 9 . 0 2 4 . 0 0 5 0 S P A

A Standard packaging  
B Blister packaging

SP Plastic retaining clip