

## Features

### 25 A modular contactor - 2 pole

- 17.5 mm wide
- NO contact gap  $\geq 3$  mm, double break
- Continuous duty for the coil and contacts
- AC/DC silent coil (with varistor protection)
- Protective separation (reinforced insulation) between coil and contacts
- Mechanical and LED indicators as standard
- Auto-On-Off selector version available
- AgNi and AgSnO<sub>2</sub> contact versions available
- Compliant with EN 61095: 2009
- Auxiliary contact module available, quick-assembly with the main contactor (1 NO + 1 NC and 2 NO versions)
- 35 mm rail (EN 60715) mount

22.32...1xx0 / 22.32...4xx0  
Screw terminal



\* Contact gap  $\geq 3$  mm for NO contacts only;  
NC contacts  $\geq 1.5$  mm  
For outline drawings see page 7

**NEW** 22.32.0.xxx.1xx0

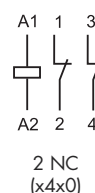
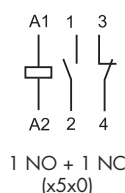
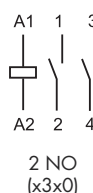


- AgNi contacts, specifically intended for resistive and slightly inductive loads as well as for motor loads

**NEW** 22.32.0.xxx.4xx0



- AgSnO<sub>2</sub> contacts, specifically intended for lamp loads and for high inrush current loads



### Contact specification

|                                                      |                                       |                    |
|------------------------------------------------------|---------------------------------------|--------------------|
| Contact configuration                                | 2 NO, 3 mm * (or 1 NO + 1 NC or 2 NC) |                    |
| Rated current/Maximum peak current A                 | 25 / 80                               | 25 / 120           |
| Rated voltage V AC                                   | 250 / 440                             | 250 / 440          |
| Rated load AC1 / AC-7a (per pole @ 250 V) VA         | 6,250                                 | 6,250              |
| Rated current AC3 / AC-7b A                          | 10                                    | 10                 |
| Rated load AC15 (per pole @ 230 V) VA                | 1,800                                 | 1,800              |
| Single-phase motor rating (230 V AC) kW              | 1                                     | 1                  |
| Rated current AC-7c A                                | —                                     | 10                 |
| 230 V lamps rating: incandescent or halogen W        | —                                     | 2,000              |
| compact fluorescent (CFL) W                          | —                                     | 200                |
| electronic ballast fluorescent tubes W               | —                                     | 800                |
| electromagnetic ballast compens. fluorescent tubes W | —                                     | 500                |
| Breaking capacity DC1: 30/110/220 V A                | 25/5/1                                | 25/5/1             |
| Minimum switching load mW (V/mA)                     | 1,000 (10 / 10)                       | 1,000 (10 / 10)    |
| Contact material                                     | AgNi                                  | AgSnO <sub>2</sub> |

### Coil specification

|                                                      |                               |                               |
|------------------------------------------------------|-------------------------------|-------------------------------|
| Nominal voltage (U <sub>N</sub> ) V DC/AC (50/60 Hz) | 12 - 24 - 48 - 60 - 120 - 230 | 12 - 24 - 48 - 60 - 120 - 230 |
| Rated power AC/DC VA (50 Hz)/W                       | 2 / 2.2                       | 2 / 2.2                       |
| Operating range DC/AC (50/60 Hz)                     | (0.8 ... 1.1) U <sub>N</sub>  | (0.8 ... 1.1) U <sub>N</sub>  |
| Holding voltage DC/AC (50/60 Hz)                     | 0.4 U <sub>N</sub>            | 0.4 U <sub>N</sub>            |
| Must drop-out voltage DC/AC (50/60 Hz)               | 0.1 U <sub>N</sub>            | 0.1 U <sub>N</sub>            |

### Technical data

|                                                     |                      |                      |
|-----------------------------------------------------|----------------------|----------------------|
| Mechanical life AC/DC cycles                        | 2 · 10 <sup>6</sup>  | 2 · 10 <sup>6</sup>  |
| Electrical life at rated load AC-7a cycles          | 70 · 10 <sup>3</sup> | 30 · 10 <sup>3</sup> |
| Operate/release time ms                             | 30 / 20              | 30 / 20              |
| Insulation between coil and contacts (1.2/50 µs) kV | 6                    | 6                    |
| Ambient temperature range °C                        | -20...+50            | -20...+50            |
| Protection category                                 | IP20                 | IP20                 |

### Approvals (according to type)



## Features

### 25 A modular contactor - 4 pole

- 35 mm wide
- NO contact gap  $\geq 3$  mm, double break
- Continuous duty for the coil and contacts
- AC/DC silent coil (with varistor protection)
- Protective separation (reinforced insulation) between coil and contacts
- Mechanical and LED indicators as standard
- Auto-On-Off selector version available
- AgNi and AgSnO<sub>2</sub> contact versions available
- Compliant with EN 61095: 2009
- Auxiliary contact module available, quick-assembly with the main contactor (1 NO + 1 NC and 2 NO versions)
- 35 mm rail (EN 60715) mount

22.34...1xx0 / 22.34...4xx0  
Screw terminal



\* Contact gap  $\geq 3$  mm for NO contacts only;  
NC contacts  $\geq 1.5$  mm

For outline drawings see page 7

### Contact specification

|                                                    |                                          |                 |
|----------------------------------------------------|------------------------------------------|-----------------|
| Contact configuration                              | 4 NO, 3 mm * (or 3NO + 1NC or 2NO + 2NC) |                 |
| Rated current/Maximum peak current                 | A                                        | 25 / 80         |
| Rated voltage                                      | V AC                                     | 250 / 440       |
| Rated load AC1 / AC-7a (per pole @ 250 V)          | VA                                       | 6,250           |
| Rated current AC3 / AC-7b                          | A                                        | 10              |
| Rated load AC15 (per pole @ 230 V)                 | VA                                       | 1,800           |
| Three-phase motor rating (400 - 440 V AC)          | kW                                       | 4               |
| Rated current AC-7c                                | A                                        | —               |
| 230 V lamps rating: incandescent or halogen        | W                                        | —               |
| compact fluorescent (CFL)                          | W                                        | 200             |
| electronic ballast fluorescent tubes               | W                                        | 800             |
| electromagnetic ballast compens. fluorescent tubes | W                                        | 500             |
| Breaking capacity DC1: 30/110/220 V                | A                                        | 25/5/1          |
| Minimum switching load                             | mW (V/mA)                                | 1,000 (10 / 10) |
| Contact material                                   |                                          | AgNi            |

### Coil specification

|                                   |                    |                               |
|-----------------------------------|--------------------|-------------------------------|
| Nominal voltage (U <sub>N</sub> ) | V DC/AC (50/60 Hz) | 12 - 24 - 48 - 60 - 120 - 230 |
| Rated power                       | AC/DC VA (50 Hz)/W | 2 / 2.2                       |
| Operating range                   | DC/AC (50/60 Hz)   | (0.8 ... 1.1) U <sub>N</sub>  |
| Holding voltage                   | DC/AC (50/60 Hz)   | 0.4 U <sub>N</sub>            |
| Must drop-out voltage             | DC/AC (50/60 Hz)   | 0.1 U <sub>N</sub>            |

### Technical data

|                                                  |        |                       |
|--------------------------------------------------|--------|-----------------------|
| Mechanical life AC/DC                            | cycles | 2 · 10 <sup>6</sup>   |
| Electrical life at rated load AC-7a              | cycles | 150 · 10 <sup>3</sup> |
| Operate/release time                             | ms     | 18 / 40               |
| Insulation between coil and contacts (1.2/50 µs) | kV     | 6                     |
| Ambient temperature range                        | °C     | -20...+50             |
| Protection category                              |        | IP20                  |

### Approvals (according to type)



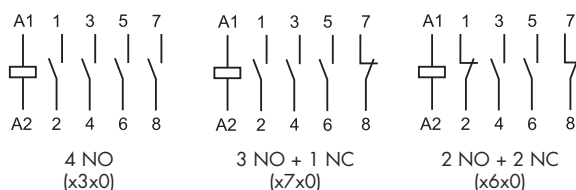
## NEW 22.34.0.xxx.1xx0 NEW 22.34.0.xxx.4xx0



- AgNi contacts, specifically intended for resistive and slightly inductive loads as well as for motor loads



- AgSnO<sub>2</sub> contacts, specifically intended for lamp loads and for high inrush current loads



## Ordering information

Example: 22 series, modular contactor 25 A, 4 NO contacts, coil 230 V AC/DC, AgSnO<sub>2</sub> contacts, Auto-On-Off selector + mechanical indicator + LED.

Series \_\_\_\_\_

Type \_\_\_\_\_

3 = 25 A modular contactor range

Number of contacts \_\_\_\_\_

2 = 2 pole  
4 = 4 pole

Coil version \_\_\_\_\_

0 = AC(50/60 Hz)/DC

Coil rated voltage \_\_\_\_\_

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 |
|-------|--------------|--------------|------------------|--------------|---|
| 22.32 | AC/DC        | <b>1 - 4</b> | <b>3 - 4 - 5</b> | <b>2 - 4</b> | 0 |
| 22.34 | AC/DC        | <b>1 - 4</b> | <b>3 - 6 - 7</b> | <b>2 - 4</b> | 0 |

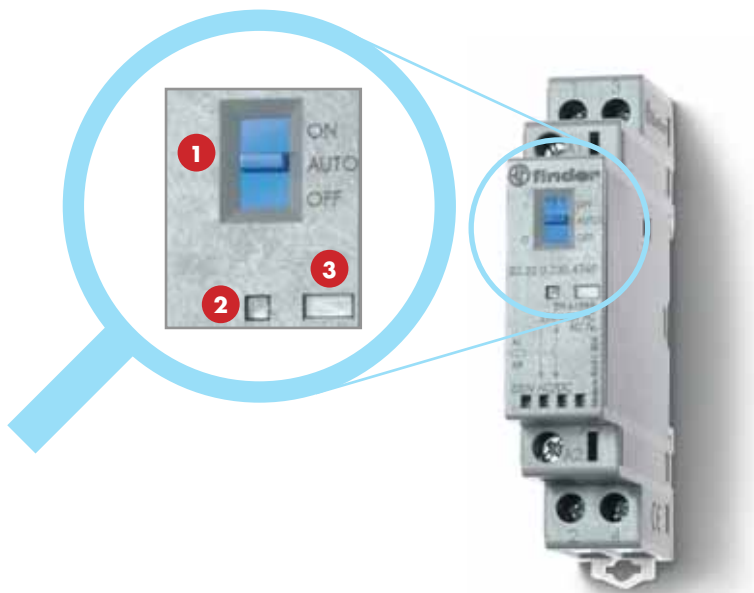
**A: Contact material**  
1 = AgNi  
4 = AgSnO<sub>2</sub>

**B: Contact circuit**  
3 = All NO contacts  
4 = All NC contacts (22.32 only)  
5 = 1 NO + 1 NC  
6 = 2 NO + 2 NC  
7 = 3 NO + 1 NC

**C: Options**  
2 = mechanical indicator + LED  
4 = Auto-On-Off selector + mechanical indicator + LED

**D: Special versions**  
0 = Standard

## Auto-On-Off selector + mechanical indicator + LED (xx40 option)



- 1 Selector**  
The three-position manual selector has the following functions:
  - **ON position** - the contacts are latched in the operated state (NO contacts - closed and NC contacts - open), the mechanical indicator is visible in its window, the LED is not illuminated.
  - **AUTO position** - the state of contacts, mechanical indicator and LED follow the coil supply voltage.
  - **OFF position** - even if terminals A1 - A2 are supplied with rated voltage, the coil is not energized, and so the contacts remain in the non-operated state, the mechanical indicator is not visible and the LED is not illuminated.
- 2 LED**
- 3 Mechanical indicator**

## Technical data

| Insulation                                                                                                           |                           |                          |                |
|----------------------------------------------------------------------------------------------------------------------|---------------------------|--------------------------|----------------|
| Rated insulation voltage                                                                                             | V AC                      | 250                      | 440            |
| Pollution degree                                                                                                     |                           | 3 *                      | 2              |
| Insulation between coil and contact set                                                                              |                           |                          |                |
| Type of insulation                                                                                                   |                           | Reinforced               |                |
| Overvoltage category                                                                                                 |                           | III                      |                |
| Rated impulse voltage                                                                                                | kV (1.2/50 µs)            | 6                        |                |
| Dielectric strength                                                                                                  | V AC                      | 4,000                    |                |
| Insulation between adjacent contacts                                                                                 |                           |                          |                |
| Type of insulation                                                                                                   |                           | Basic                    |                |
| Overvoltage category                                                                                                 |                           | III                      |                |
| Rated impulse voltage                                                                                                | kV (1.2/50 µs)            | 4                        |                |
| Dielectric strength                                                                                                  | V AC                      | 2,500                    |                |
| Insulation between open contacts                                                                                     |                           | NO contact               | NC contact     |
| Contact gap                                                                                                          | mm                        | 3                        | 1.5            |
| Overvoltage category                                                                                                 |                           | III                      | II             |
| Rated impulse voltage                                                                                                | kV (1.2/50 µs)            | 4                        | 2.5            |
| Dielectric strength                                                                                                  | V AC/kV (1.2/50 µs)       | 2,500/4                  | 2,000/3        |
| * Only for versions without Auto-On-Off selector. For versions with Auto-On-Off selector pollution degree 2 applies. |                           |                          |                |
| Conducted disturbance immunity                                                                                       |                           | Reference standard       |                |
| Fast transients (burst 5/50 ns, 5 kHz) at coil terminals                                                             |                           | EN 61000-4-4             | Level 4 (4 kV) |
| Voltage pulses (surge 1.2/50 µs) at supply terminals (differential mode)                                             |                           | EN 61000-4-5             | Level 4 (4 kV) |
| Short circuit protection                                                                                             |                           |                          |                |
| Rated conditional short circuit current                                                                              | kA                        | 3                        |                |
| Back-up fuse                                                                                                         | A                         | 32 (gL/gG type)          |                |
| Terminals                                                                                                            |                           | Solid and stranded cable |                |
| Max. wire size – contact terminals                                                                                   | mm²                       | 1 x 6 / 2 x 4            |                |
|                                                                                                                      | AWG                       | 1 x 10 / 2 x 12          |                |
| Max. wire size – coil terminals                                                                                      | mm²                       | 1 x 4 / 2 x 2.5          |                |
|                                                                                                                      | AWG                       | 1 x 12 / 2 x 14          |                |
| Min. wire size – contact and coil terminals                                                                          | mm²                       | 1 x 0.2                  |                |
|                                                                                                                      | AWG                       | 1 x 24                   |                |
|  Screw torque                      | Nm                        | 0.8                      |                |
| Wire strip length                                                                                                    | mm                        | 9                        |                |
| Power lost to the environment                                                                                        |                           | 22.32                    | 22.34          |
|                                                                                                                      | without contact current W | 2                        | 2              |
|                                                                                                                      | with rated current W      | 4.8                      | 6.3            |

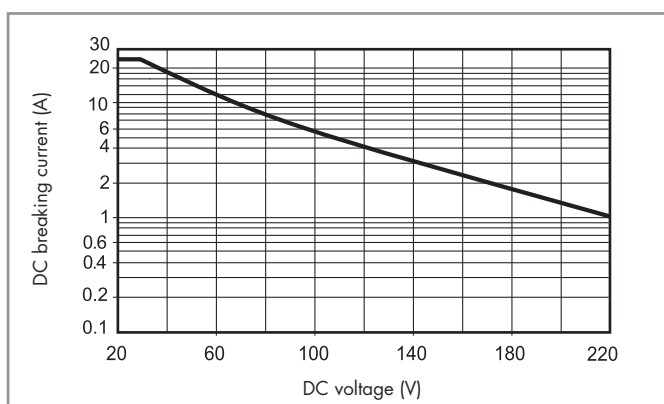
NOTE - It is suggested an air gap of 9 mm between adjacent relays for installations and working conditions close to the limit (that is, ambient temperature > 40 °C, coil operated for a prolonged period of time, all contacts loaded with current > 20 A).

## Contact specification

Ratings and utilization categories according to EN 61095 : 2009

| Utilization category | Typical applications                 | Load characteristics                                                 | Rated current (A) | Rated operational voltage (V) |                | Rated electrical life (cycles)               |                                                   |                                                |                                                   |
|----------------------|--------------------------------------|----------------------------------------------------------------------|-------------------|-------------------------------|----------------|----------------------------------------------|---------------------------------------------------|------------------------------------------------|---------------------------------------------------|
|                      |                                      |                                                                      |                   | across the pole               | between phases | 2-pole AgNi contacts (22.32...1xx0)          | 2-pole AgSnO <sub>2</sub> contacts (22.32...4xx0) | 4-pole AgNi contacts (22.34...1xx0)            | 4-pole AgSnO <sub>2</sub> contacts (22.34...4xx0) |
| AC-7a                | Slightly inductive loads             | $\cos \varphi = 0.8$                                                 | 25                | 250                           | 440            | $70 \cdot 10^3$ (NO)<br>$30 \cdot 10^3$ (NC) | $30 \cdot 10^3$                                   | $150 \cdot 10^3$ (NO)<br>$100 \cdot 10^3$ (NC) | $30 \cdot 10^3$                                   |
| AC-7b                | Motor loads                          | $\cos \varphi = 0.45$<br>$I_{\text{making}} = 6 I_{\text{breaking}}$ | 10                | 250                           | 440            | $30 \cdot 10^3$                              | $30 \cdot 10^3$                                   | $30 \cdot 10^3$                                | $30 \cdot 10^3$                                   |
| AC-7c                | Compensated electric discharge lamps | $\cos \varphi = 0.9$<br>$C = 10 \mu\text{F/A}$                       | 10                | 230                           | 400            | —                                            | $30 \cdot 10^3$                                   | —                                              | $30 \cdot 10^3$                                   |

### H 22 - Maximum DC1 breaking capacity



- 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

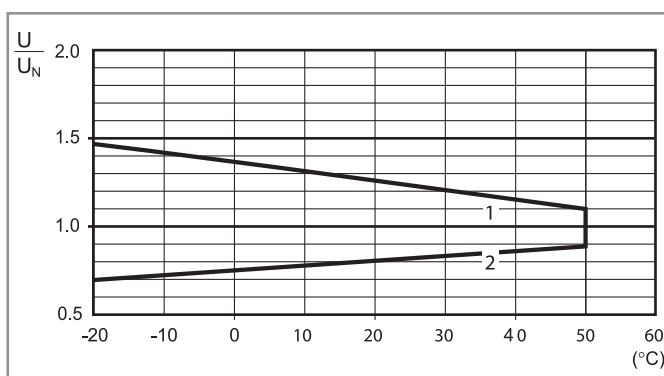
AC/DC version data (type 22.32)

| Nominal voltage $U_N$      | Coil code | Operating range |            | Rated coil consumption $I_N$ at $U_N$ (AC) |
|----------------------------|-----------|-----------------|------------|--------------------------------------------|
|                            |           | $U_{\min}$      | $U_{\max}$ |                                            |
| V                          |           | V               | V          | mA                                         |
| 12                         | 0.012     | 9.6             | 13.2       | 165                                        |
| 24                         | 0.024     | 19.2            | 26.4       | 83                                         |
| 48                         | 0.048     | 38.4            | 52.8       | 42                                         |
| 60                         | 0.060     | 48              | 66         | 33                                         |
| 120                        | 0.120     | 88              | 138        | 16.5                                       |
| (110...125)                |           |                 |            |                                            |
| 230                        | 0.230     | 184 (AC)        | 264 (AC)   | 8.7                                        |
| (230...240 AC)<br>(220 DC) |           | 176 (DC)        | 242 (DC)   |                                            |

AC/DC version data (type 22.34)

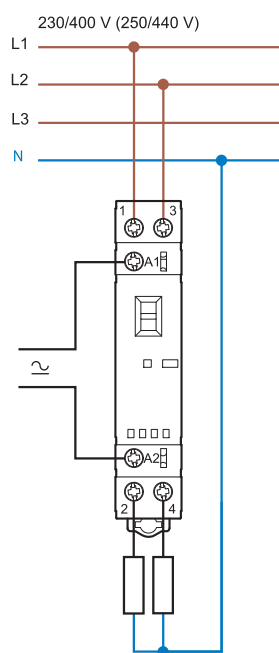
| Nominal voltage $U_N$      | Coil code | Operating range |            | Rated coil consumption $I_N$ at $U_N$ (AC) |
|----------------------------|-----------|-----------------|------------|--------------------------------------------|
|                            |           | $U_{\min}$      | $U_{\max}$ |                                            |
| V                          |           | V               | V          | mA                                         |
| 12                         | 0.012     | 9.6             | 13.2       | 165                                        |
| 24                         | 0.024     | 19.2            | 26.4       | 83                                         |
| 48                         | 0.048     | 38.4            | 52.8       | 42                                         |
| 60                         | 0.060     | 48              | 66         | 33                                         |
| 120                        | 0.120     | 88              | 138        | 16.5                                       |
| (110...125)                |           |                 |            |                                            |
| 230                        | 0.230     | 184 (AC)        | 264 (AC)   | 8.7                                        |
| (230...240 AC)<br>(220 DC) |           | 176 (DC)        | 242 (DC)   |                                            |

### R 22 - Coil operating range v ambient temperature



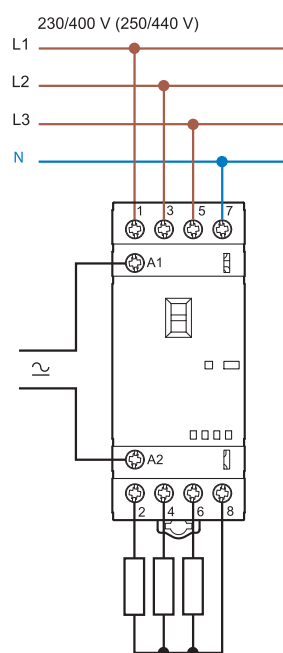
- 1 - Max. permitted coil voltage.  
2 - Min. pick-up voltage with coil at ambient temperature.

**Wiring diagrams**



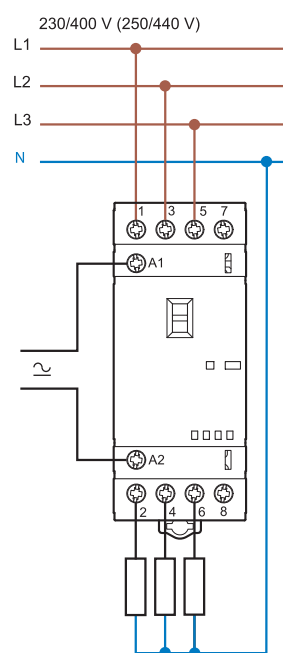
**Type 22.32**

**Line and neutral switched**



**Type 22.34**

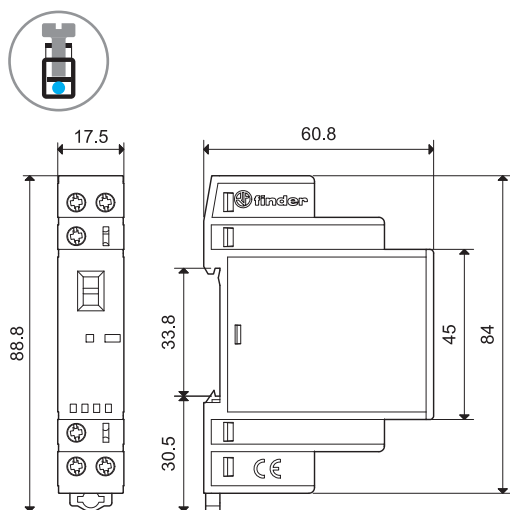
**Line only switched**



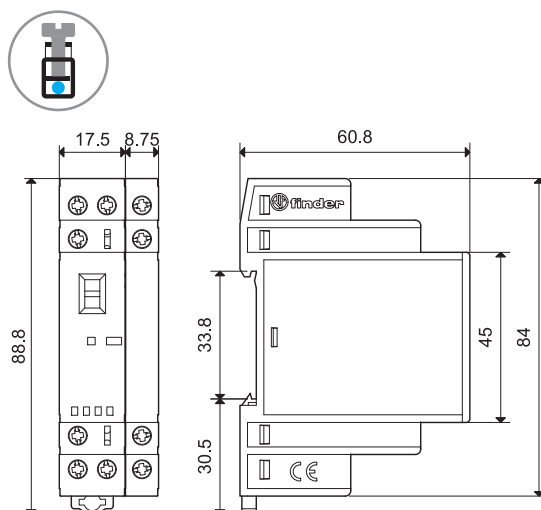
**Type 22.34**

## Outline drawings

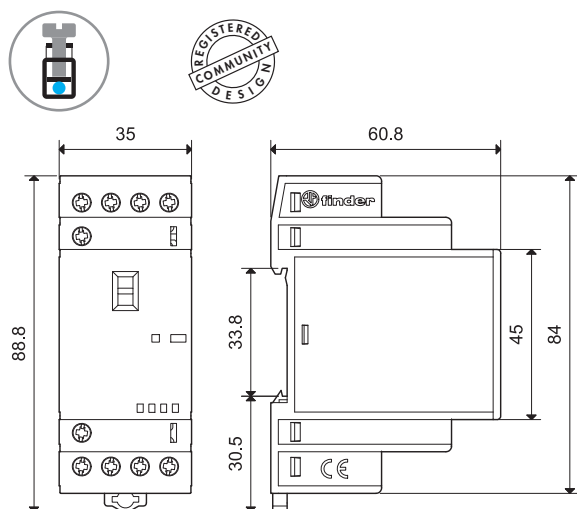
Type 22.32  
Screw terminal



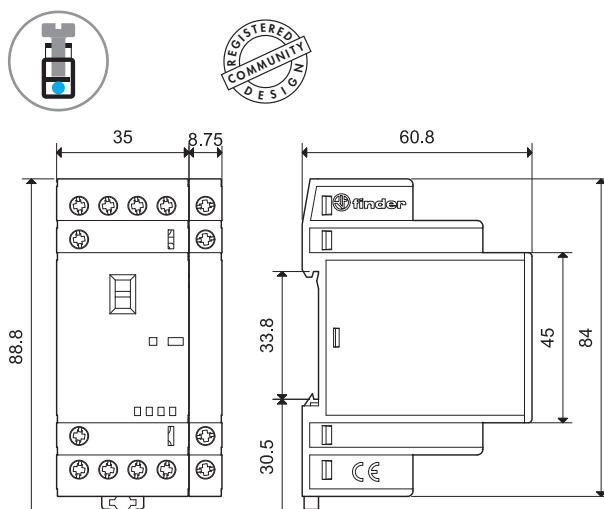
Type 22.32 + 022.33 / 022.35  
Screw terminal



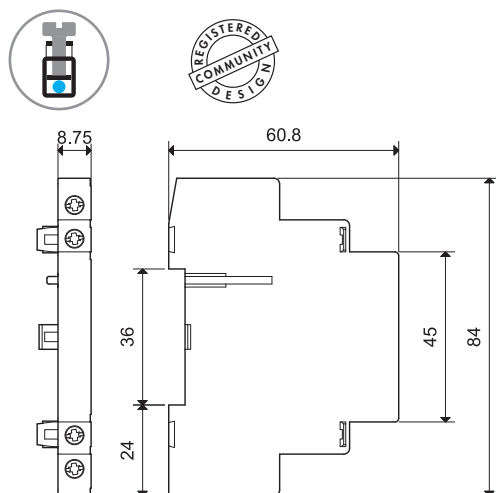
Type 22.34  
Screw terminal



Type 22.34 + 022.33 / 022.35  
Screw terminal



Type 022.33 / 022.35  
Screw terminal



## Auxiliary module 022.33 / 022.35



22.32 + 022.33 / 022.35



22.34 + 022.33 / 022.35

### 022.33



### 022.35



| Contact specification                          |                 |                          |                  |
|------------------------------------------------|-----------------|--------------------------|------------------|
| Contact configuration                          |                 | 2 NO                     | 1 NO + 1 NC      |
| Conventional free air thermal current $I_{th}$ | A               | 6                        | 6                |
| Rated current AC15 (230 V)                     | VA              | 700                      | 700              |
| Electrical life at rated load                  | cycles          | $30 \times 10^3$         | $30 \times 10^3$ |
| Contact material                               |                 | AgNi                     | AgNi             |
| Short circuit protection                       |                 |                          |                  |
| Rated conditional short circuit current        | kA              | 1                        |                  |
| Back-up fuse                                   | A               | 6 (gL/gG type)           |                  |
| Terminals                                      |                 | Solid and stranded cable |                  |
| Max. wire size                                 | mm <sup>2</sup> | 1 x 4 / 2 x 2.5          |                  |
|                                                | AWG             | 1 x 12 / 2 x 14          |                  |
| Min. wire size                                 | mm <sup>2</sup> | 1 x 0.2                  |                  |
|                                                | AWG             | 1 x 24                   |                  |
| Screw torque                                   | Nm              | 0.8                      |                  |
| Wire strip length                              | mm              | 9                        |                  |
| Power lost to the environment                  |                 |                          |                  |
| without contact current                        | W               | —                        |                  |
| with rated current                             | W               | 0.5                      |                  |
| Approvals (according to type)                  |                 | RINA                     |                  |

NOTE: it is not possible to assembly the auxiliary module on 22.32.0.xxx.x4x0 (2 NC versions).

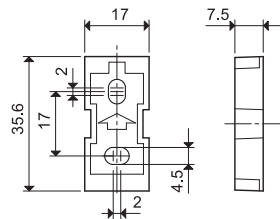
## Accessories



020.01

**Adaptor for panel mounting (for 22.32 type), plastic, 17.5 mm wide**

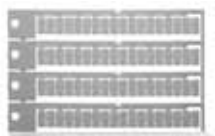
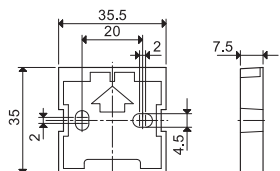
020.01



011.01

**Adaptor for panel mounting (for 22.34 type), plastic, 35 mm wide**

011.01



060.72

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

060.72



019.01

**Identification tag, plastic, 1 tag, 17x25.5 mm**

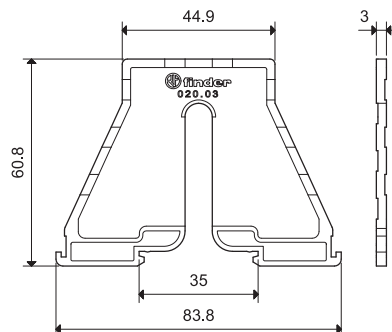
019.01



020.03

**Separator for rail mounting, plastic, 3 mm wide**

020.03



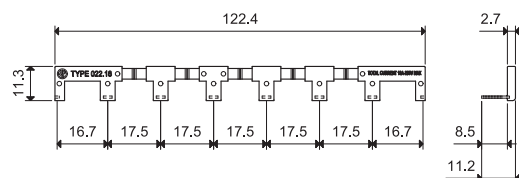
022.18

**8-way jumper link for types 22.32, 17.5 mm wide**

022.18 (blue)

Rated values

10 A - 250 V



022.26

**6-way jumper link for types 22.34, 35 mm wide**

022.26 (blue)

Rated values

10 A - 250 V

