

## Features

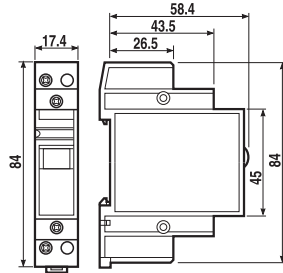
1 or 2 pole, 20 A relay for direct 35 mm rail (EN 60715) mounting

- 17.4 mm wide
- Test button
- Identification label
- AC coils and DC coils
- 35 mm rail (EN 60715) mount
- Cadmium free contact material

**22.21**



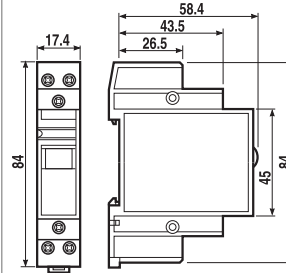
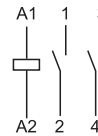
- Single phase switch 1 NO (SPST-NO)
- 35 mm rail (EN 60715) mount



**22.22**



- Double phase switch 2 NO (DPST-NO)
- 35 mm rail (EN 60715) mount



| <b>Contact specification</b>                     |                 |  |                            |
|--|-----------------|--|----------------------------|
| Contact configuration                            |                 | 1 NO (SPST-NO)                           | 2 NO (DPST-NO)             |
| Rated current/Maximum peak current               | A               | 20/30                                    | 20/30                      |
| Rated voltage/Maximum switching voltage          | V AC            | 250/400                                  | 250/400                    |
| Rated load AC1                                   | VA              | 5,000                                    | 5,000                      |
| Rated load AC15 (230 V AC)                       | VA              | 1,000                                    | 1,000                      |
| Single phase motor rating (230 V AC)             | kW              | —  | —                          |
| Breaking capacity DC1: 30/110/220 V              | A               | 20/0.3/0.12                              | 20/0.3/0.12                |
| Minimum switching load                           | mW (V/mA)       | 1,000 (10/10)                            | 1,000 (10/10)              |
| Standard contact material                        |                 | AgSnO <sub>2</sub>                       | AgSnO <sub>2</sub>         |
| <b>Coil specification</b>                        |                 |  |                            |
| Nominal voltage (U <sub>N</sub> )                | V AC (50/60 Hz) | 8 - 12 - 24 - 48 - 110 - 120 - 230 - 240 |                            |
|  | V DC            | 12 - 24 - 48 - 110                       | 12 - 24 - 48 - 110         |
| Rated power AC/DC                                | VA (50 Hz)/W    | 3/1.25                                   | 3/1.25                     |
| Operating range                                  | AC (50 Hz)      | (0.85...1.1)U <sub>N</sub>               | (0.85...1.1)U <sub>N</sub> |
|  | DC              | (0.9...1.1)U <sub>N</sub>                | (0.9...1.1)U <sub>N</sub>  |
| <b>Technical data</b>                            |                 |  |                            |
| Mechanical life AC/DC                            | cycles          | 500 · 10 <sup>3</sup>                    | 500 · 10 <sup>3</sup>      |
| Electrical life at rated load in AC1             | cycles          | 50 · 10 <sup>3</sup>                     | 50 · 10 <sup>3</sup>       |
| Operate/release time                             | ms              | 15/8                                     | 15/8                       |
| Maximum impulse duration                         |                 | continuous                               | continuous                 |
| Insulation between coil and contacts (1.2/50 μs) | kV              | 4  | 4                          |
| Ambient temperature range                        | °C              | -40...+40                                | -40...+40                  |
| Protection category                              |                 | IP 20                                    | IP 20                      |
| <b>Approvals</b> (according to type)             |                 |  |                            |

## Features

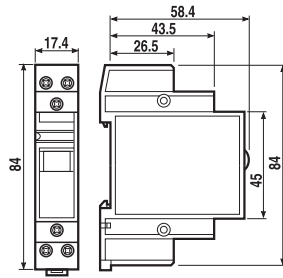
1 or 2 pole, 20 A relay  
for direct 35 mm rail (EN 60715) mounting

- 17.4 mm wide
- Test button
- Identification label
- AC coils and DC coils
- 35 mm rail (EN 60715) mount
- Cadmium free contact material

### 22.23



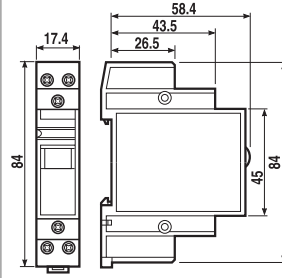
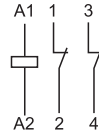
- Double phase switch  
1NO+1NC (SPST-NO+SPST-NC)
- 35 mm rail (EN 60715) mount



### 22.24



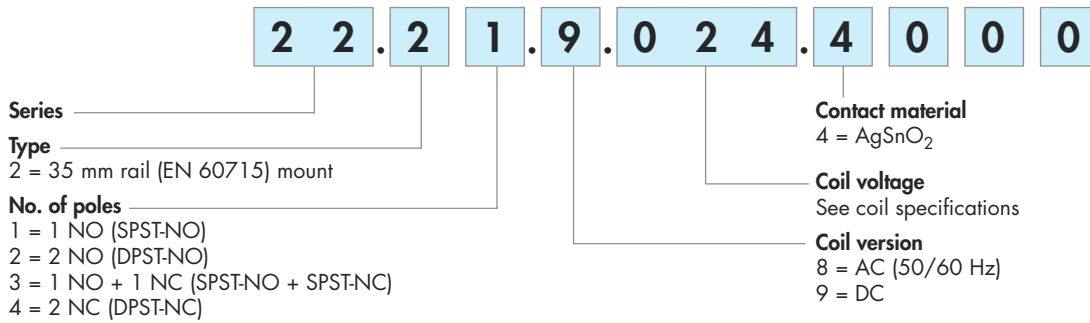
- Double phase switch 2 NC  
(DPST-NC)
- 35 mm rail (EN 60715) mount



| Contact specification                            |                 |  |                            |
|--|-----------------|--|----------------------------|
| Contact configuration                            |                 | 1NO+1NC (SPST-NO+SPST-NC)                | 2 NC (DPST-NC)             |
| Rated current/Maximum peak current               | A               | 20/30                                    | 20/30                      |
| Rated voltage/Maximum switching voltage          | V AC            | 250/400                                  | 250/400                    |
| Rated load AC1                                   | VA              | 5,000                                    | 5,000                      |
| Rated load AC15 (230 V AC)                       | VA              | 1,000                                    | 1,000                      |
| Single phase motor rating (230 V AC)             | kW              | —  | —                          |
| Breaking capacity DC1: 30/110/220 V              | A               | 20/0.3/0.12                              | 20/0.3/0.12                |
| Minimum switching load                           | mW (V/mA)       | 1,000 (10/10)                            | 1,000 (10/10)              |
| Standard contact material                        |                 | AgSnO <sub>2</sub>                       | AgSnO <sub>2</sub>         |
| Coil specification                               |                 |  |                            |
| Nominal voltage (U <sub>N</sub> )                | V AC (50/60 Hz) | 8 - 12 - 24 - 48 - 110 - 120 - 230 - 240 |                            |
|  | V DC            | 12 - 24 - 48 - 110                       | 12 - 24 - 48 - 110         |
| Rated power AC/DC                                | VA (50 Hz)/W    | 3/1.25                                   | 3/1.25                     |
| Operating range                                  | AC (50 Hz)      | (0.85...1.1)U <sub>N</sub>               | (0.85...1.1)U <sub>N</sub> |
|  | DC              | (0.9...1.1)U <sub>N</sub>                | (0.9...1.1)U <sub>N</sub>  |
| Technical data                                   |                 |  |                            |
| Mechanical life AC/DC                            | cycles          | 500 · 10 <sup>3</sup>                    | 500 · 10 <sup>3</sup>      |
| Electrical life at rated load in AC1             | cycles          | 50 · 10 <sup>3</sup>                     | 50 · 10 <sup>3</sup>       |
| Operate/release time                             | ms              | 15/8                                     | 15/8                       |
| Maximum impulse duration                         |                 | continuous                               | continuous                 |
| Insulation between coil and contacts (1.2/50 μs) | kV              | 4  | 4                          |
| Ambient temperature range                        | °C              | -40...+40                                | -40...+40                  |
| Protection category                              |                 | IP 20                                    | IP 20                      |
| Approvals (according to type)                    |                 | CE                                       | PG                         |

## Ordering information

Example: 22 series 35 mm rail mount relay, 1 NO (SPST-NO) 20 A contact, coil rated 24 V DC, contact material AgSnO<sub>2</sub>.



## Technical data

| Contact specifications         |                 |                       |                |                          |                |
|--------------------------------|-----------------|-----------------------|----------------|--------------------------|----------------|
| Nominal rate lamps             |                 |                       |                |                          |                |
| incandescent (230V)            | W               | 1,000                 |                |                          |                |
| compensated fluorescent (230V) | W               | 360                   |                |                          |                |
| Insulation                     |                 |                       |                |                          |                |
| Dielectric strength            |                 |                       |                |                          |                |
| between supply and contacts    | V AC            | 3,500                 |                |                          |                |
| between open contacts          | V AC            | 2,000                 |                |                          |                |
| between adjacent contacts      | V AC            | 2,000                 |                |                          |                |
| Other data                     |                 |                       |                |                          |                |
| Bounce time: NO / NC           | ms              | 5 / 10                |                |                          |                |
| Power lost to the environment  |                 |                       |                |                          |                |
| without contact current        | W               | 1.2                   |                |                          |                |
| with rated current             | W               | 3.2 (22.21, 22.23)    |                | 5.2 (22.22, 22.24)       |                |
| Screw torque                   | Nm              | 0.8                   |                | 0.8                      |                |
| Max. wire size                 |                 | <b>Coil terminals</b> |                | <b>Contact terminals</b> |                |
|                                |                 | solid cable           | stranded cable | solid cable              | stranded cable |
|                                | mm <sup>2</sup> | 1x4 / 2x2.5           | 1x2.5 / 2x2.5  | 1x6 / 2x6                | 1x6 / 2x4      |
|                                | AWG             | 1x12 / 2x14           | 1x14 / 2x14    | 1x10 / 2x10              | 1x10 / 2x12    |

If the coil is operated for a prolonged period of time, adequate ventilation of the relays must be provided - suggested gap of 9 mm between adjacent relays.

## Coil specifications

### DC version data

| Nominal voltage<br>U <sub>N</sub><br>V | Coil code | Operating range       |                       | Resistance<br>R<br>Ω | Consumption<br>I at U <sub>N</sub><br>mA |
|--|-----------|-----------------------|-----------------------|----------------------|--|
|  |           | U <sub>min</sub><br>V | U <sub>max</sub><br>V |                      |  |
| 12                                     | 9.012     | 10.8                  | 13.2                  | 115                  | 104                                      |
| 24                                     | 9.024     | 21.6                  | 26.4                  | 460                  | 52.2                                     |
| 48                                     | 9.048     | 43.2                  | 52.8                  | 1,850                | 25.9                                     |
| 110                                    | 9.110     | 99                    | 121                   | 9,700                | 11.3                                     |

### AC version data

| Nominal voltage<br>U <sub>N</sub><br>V | Coil code | Operating range       |                       | Resistance<br>R<br>Ω | Consumption<br>I at U <sub>N</sub><br>(50 Hz)<br>mA |
|--|-----------|-----------------------|-----------------------|----------------------|---|
|  |           | U <sub>min</sub><br>V | U <sub>max</sub><br>V |                      |   |
| 8                                      | 8.008     | 6.8                   | 8.8                   | 6.5                  | 360   |
| 12                                     | 8.012     | 10.2                  | 13.2                  | 13.5                 | 245   |
| 24                                     | 8.024     | 20.4                  | 26.4                  | 41                   | 135   |
| 48                                     | 8.048     | 40.8                  | 52.8                  | 186                  | 68  |
| 110                                    | 8.110     | 93.5                  | 121                   | 970                  | 26  |
| 120                                    | 8.120     | 102                   | 132                   | 1,380                | 24  |
| 230                                    | 8.230     | 196                   | 253                   | 4,200                | 12.5  |
| 240                                    | 8.240     | 204                   | 264                   | 4,400                | 12  |

### Accessories



020.01

**Adaptor for panel mounting**, 17.5 mm wide

020.01



020.24

**Sheet of marker tags**, plastic, 24 tags, 9x17 mm

020.24