

### Level control relays for conductive liquids

#### Type 72.01

- Adjustable sensitivity
- Available also for supply 400 V
- Available also with sensitivity range (5...450)kΩ adjustable
- Available also for contact loads down to 5 V, 1 mA

#### Type 72.11

- Fixed sensitivity
- Emptying or filling functions
- LED indicator
- Reinforced insulation (6 kV - 1.2/50 μs) between:
  - supply and contacts
  - electrodes and supply
  - contacts and electrodes
- 35 mm rail (EN 60715) mount
- Control about a single level or between Min./Max. limits

72.01/11

Screw terminal



FOR UL RATINGS SEE:

"General technical information" page V

For outline drawing see page 10

#### Contact specification

|                                             |           |             |  |  |  |             |  |  |  |
|---------------------------------------------|-----------|-------------|--|--|--|-------------|--|--|--|
| Contact configuration                       |           | 1 CO (SPDT) |  |  |  | 1 CO (SPDT) |  |  |  |
| Rated current/Maximum peak current          | A         | 16/30       |  |  |  | 16/30       |  |  |  |
| Rated voltage/<br>Maximum switching voltage | V AC      | 250/400     |  |  |  | 250/400     |  |  |  |
| Rated load AC1                              | VA        | 4000        |  |  |  | 4000        |  |  |  |
| Rated load AC15 (230 V AC)                  | VA        | 750         |  |  |  | 750         |  |  |  |
| Single phase motor rating (230 V AC)        | kW        | 0.55        |  |  |  | 0.55        |  |  |  |
| Breaking capacity DC1: 30/110/220 V         | A         | 16/0.3/0.12 |  |  |  | 16/0.3/0.12 |  |  |  |
| Minimum switching load                      | mW (V/mA) | 500 (10/5)  |  |  |  | 500 (10/5)  |  |  |  |
| Standard contact material                   |           | AgCdO       |  |  |  | AgCdO       |  |  |  |

#### Supply specification

|                                   |                 |             |           |           |           |             |           |           |
|-----------------------------------|-----------------|-------------|-----------|-----------|-----------|-------------|-----------|-----------|
| Nominal voltage (U <sub>N</sub> ) | V AC (50/60 Hz) | 24          | 110...125 | 230...240 | 400       | 24          | 110...125 | 230...240 |
|                                   | V DC            | 24          | —         | —         | —         | 24          | —         | —         |
| Rated power AC/DC                 | VA (50 Hz)/W    | 2.5/1.5     |           |           |           | 2.5/1.5     |           |           |
| Operating range                   | V AC (50/60 Hz) | 19.2...26.4 | 90...130  | 184...253 | 360...460 | 19.2...26.4 | 90...130  | 184...253 |
|                                   | V DC            | 20.4...26.4 | —         | —         | —         | 20.4...26.4 | —         | —         |

#### Technical data

|                                                          |        |                       |  |  |  |                       |  |  |  |
|----------------------------------------------------------|--------|-----------------------|--|--|--|-----------------------|--|--|--|
| Electrical life at rated load AC1                        | cycles | 100 · 10 <sup>3</sup> |  |  |  | 100 · 10 <sup>3</sup> |  |  |  |
| Electrode voltage                                        | V AC   | 4                     |  |  |  | 4                     |  |  |  |
| Electrode current                                        | mA     | 0.2                   |  |  |  | 0.2                   |  |  |  |
| Run-on time                                              | s      | 0.5 - 7 (selectable)  |  |  |  | 1                     |  |  |  |
| Max sensitivity range                                    | kΩ     | 5...150 (adjustable)  |  |  |  | 150 (fixed)           |  |  |  |
| Insulation between supply/contacts/electrode (1.2/50 μs) | kV     | 6                     |  |  |  | 6                     |  |  |  |
| Ambient temperature                                      | °C     | -20...+60             |  |  |  | -20...+60             |  |  |  |
| Protection category                                      |        | IP 20                 |  |  |  | IP 20                 |  |  |  |

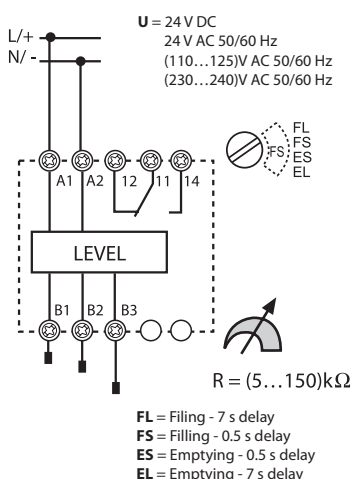
#### Approvals (according to type)



### 72.01



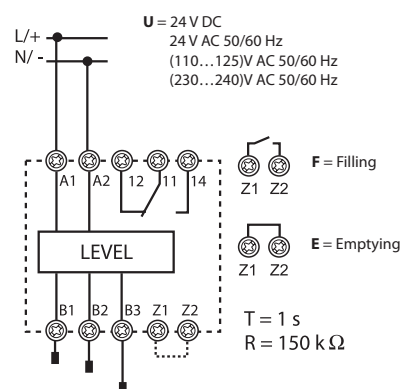
- Sensitivity range (5...150)kΩ adjustable
- Delay time (0.5 s or 7 s) switch selectable
- Emptying or filling functions switch selectable



### 72.11



- Sensitivity fixed 150 kΩ
- Delay time fixed: 1 s
- Emptying or filling functions link selectable



**Special relay for alternating loads, for applications with pumps, compressors, air conditioning or refrigeration units**

#### Type 72.42

- Priority change relay
- 2 independent NO output, 12 A
- 4 functions
- 2 independent control signals, insulated from supply
- 110...240 V and 24 V AC/DC supply versions
- Modular housing, 35 mm wide
- 35 mm rail (EN 60715) mount
- Cd-free contact material

72.42  
Screw terminal

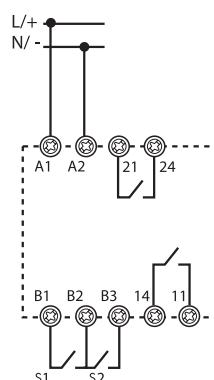


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#### 72.42



- Multi-function (M1, ME, M2, M1)



For outline drawing see page 10

#### Contact specification

|                                          |           |                  |
|------------------------------------------|-----------|------------------|
| Contact configuration                    |           | 2 NO (2 DPST-NO) |
| Rated current/Max. peak current          | A         | 12/20            |
| Rated voltage/<br>Max. switching voltage | V AC      | 250/400          |
| Rated load AC1                           | VA        | 3000             |
| Rated load AC15                          | VA        | 1000             |
| Single phase motor rating (230 V AC)     | kW        | 0.55             |
| Breaking capacity DC1: 30/110/220 V      | A         | 12/0.3/0.12      |
| Minimum switching load                   | mW (V/mA) | 300 (5/5)        |
| Standard contact material                |           | AgNi             |

#### Supply specification

|                                   |                                  |             |           |
|-----------------------------------|----------------------------------|-------------|-----------|
| Nominal voltage (U <sub>N</sub> ) | V AC (50/60 Hz) / DC             | 24          | 110...240 |
| Rated power                       | in stand-by W                    | 0.12        | 0.18      |
|                                   | with 2 active relays W/VA(50 Hz) | 1.1/1.7     | 1.5/3.9   |
| Operating range                   | V AC (50/60 Hz)                  | 16.8...28.8 | 90...264  |
|                                   | V DC                             | 16.8...32   | 90...264  |

#### Technical data

|                                                    |        |                       |
|----------------------------------------------------|--------|-----------------------|
| Electrical life at rated load AC1                  | cycles | 100 · 10 <sup>3</sup> |
| Output delay time (T on function diagrams)         | s      | 0.2...20              |
| Power-on activation time                           | s      | ≤ 0.7                 |
| Minimum impulse duration                           | ms     | 50                    |
| Insulation between supply and contacts (1.2/50 μs) | kV     | 6                     |
| Dielectric strength between open contacts          | V AC   | 1000                  |
| Ambient temperature                                | °C     | −20...+50             |
| Protection category                                |        | IP 20                 |

**Approvals** (according to type)

