

Monitoring relays 6 - 8 A

70
SERIES



Air conditioning



Couplers



Ancillary equipment



3 Phase - Rotation and phase loss monitoring relay

- Complies with EN 45545-2:2020 (protection against fire of materials), EN 61373 (resistance against random vibrations and shock, Category 1, Class B), EN 50155 (resistance to temperature and humidity, OT4/ST1 class)
- Universal voltage monitoring (U_N from 208 V to 480 V, 50/60 Hz)
- Phase loss monitoring, under phase regeneration
- Positive safety logic - make contact opens if the relay detects an error
- 2 versions:
 - 1 CO, 6 A (width 17.5 mm)
 - 2 CO, 8 A (width 22.5 mm)
- 35 mm rail (EN 60715) mount
- European patent pending for the innovative principle at the root of the 3 phase monitoring and error survey system

70.61T/70.62T
Screw terminal



* Short term (10 min) +70°C

For outline drawing see page 5

70.61T



Three-phase (208...480)V voltage monitoring:

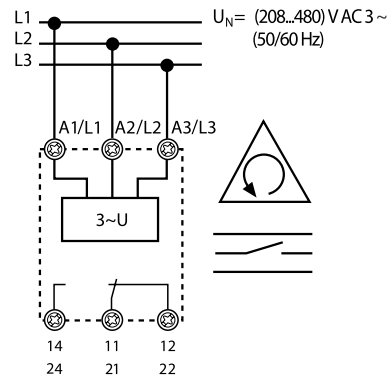
- Phase loss
- Phase rotation

70.62T



Three-phase (208...480)V voltage monitoring:

- Phase loss
- Phase rotation



Contact specification

| | | | |
|---|-----------|-------------|-------------|
| Contact configuration | | 1 CO (SPDT) | 2 CO (DPDT) |
| Rated current/Maximum peak current | A | 6/15 | 8/15 |
| Rated voltage/ Maximum switching voltage | V AC | 250/400 | 250/400 |
| Rated load AC1 | VA | 1500 | 2000 |
| Rated load AC15 (230 V AC) | VA | 250 | 400 |
| Single phase motor rating (230 V AC) | kW | 0.185 | 0.3 |
| Breaking capacity DC1: 24/110/220 V | A | 3/0.35/0.2 | 8/0.3/0.12 |
| Minimum switching load | mW (V/mA) | 500 (10/5) | 300 (5/5) |
| Standard contact material | | AgNi | AgNi |

Supply specification

| | | | |
|----------------------------------|--------------|-----------|-----------|
| Nominal system voltage (U_N) | V AC | 208...480 | 208...480 |
| Frequency | Hz | 50/60 | 50/60 |
| Rated power | VA (50 Hz)/W | 8/1 | 11/0.8 |
| Operating range | V AC | 170...500 | 170...520 |

Technical data

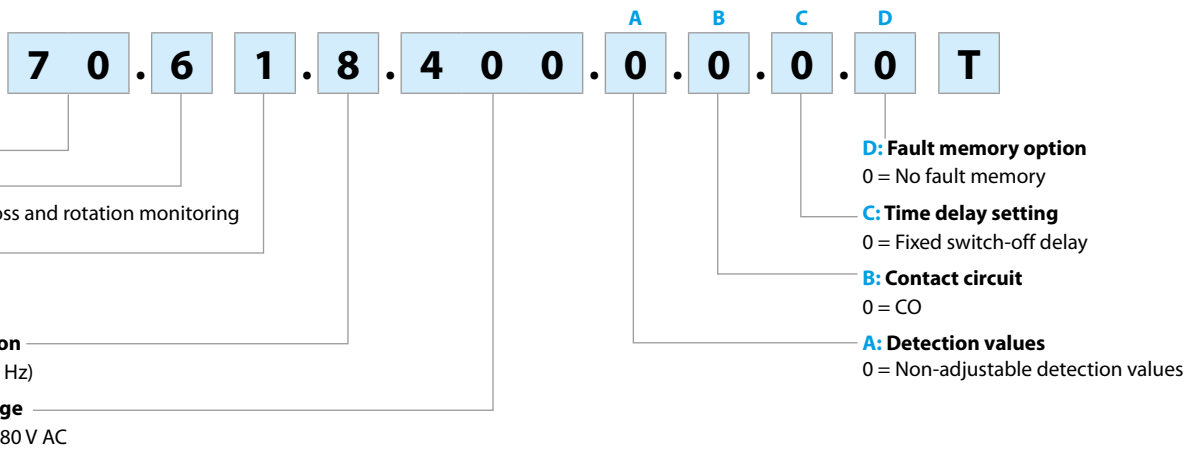
| | | | |
|-----------------------------------|--------|------------------|-----------------|
| Electrical life at rated load AC1 | cycles | $100 \cdot 10^3$ | $60 \cdot 10^3$ |
| Switch-off/reaction time | s | < 0.5/< 0.5 | < 0.5/< 0.5 |
| Ambient temperature | °C | -25...+55* | -25...+55* |
| Protection category | | IP 20 | IP 20 |

Approvals (according to type)



Ordering information

Example: 70 series, three-phase voltage monitoring relay, 1 output, supply voltage 208...480 V AC.



Technical data

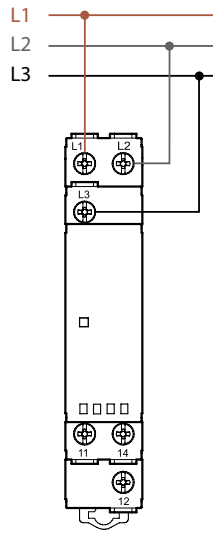
| Insulation | | | |
|---|-----------------------------------|---------------------------|---------------------|
| Insulation | between supply and contacts | Dielectric strength | Impulse (1.2/50 μs) |
| | between open contacts | 3000 V | 5 kV |
| | | 1000 V | 1.5 kV |
| EMC specifications | | | |
| Type of test | | Reference standard | |
| Electrostatic discharge | contact discharge | EN 61000-4-2 | 4 kV |
| | air discharge | EN 61000-4-2 | 8 kV |
| Fast transients (burst) (5-50 ns, 5 kHz) | on A1, A2, A3 | EN 61000-4-4 | 2 kV |
| Surge (1.2/50 μs) | differential mode | EN 61000-4-5 | 4 kV |
| Other data | | | |
| Start up time (NO contact closure after energising) | s | < 2 | |
| Regeneration level (Maximum) | ≤ 80% of average of other 2 phase | | |
| Power lost to the environment | without contact current | W | 1 |
| | with rated current | W | 1.4 |
| Screw torque | Nm | 0.8 | |
| Max. wire size | solid cable | | stranded cable |
| | mm ² | 1 x 6 / 2 x 4 | 1 x 4 / 2 x 2.5 |
| | AWG | 1 x 10 / 2 x 12 | 1 x 12 / 2 x 14 |

Functions

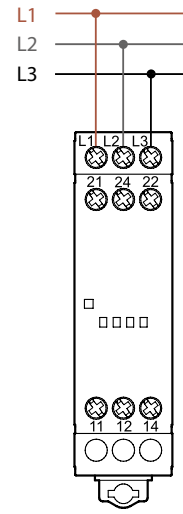
Output relay On (NO closed) when all OK: positive logic.

| | | |
|--|---|--|
| <p>Type 70.61T 70.62T</p> | <p>Phase loss and phase rotation</p> | <p>If the sequence (L1, L2, L3) is incorrect at power-on, the output relay will not turn-on.</p> <p>If a phase is lost, the output relay turns off immediately. When the phase is again active, the output relay turns on immediately.</p> <p>Phase loss monitoring possible even under regeneration up to 80% of the average of the other 2 phases.</p> |
|--|---|--|

Wiring diagrams



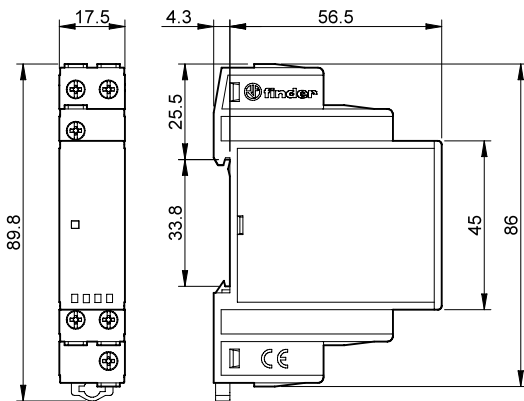
Type 70.61T



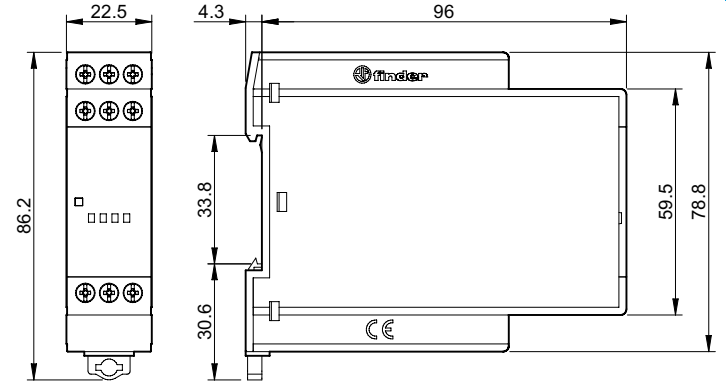
Type 70.62T

Outline drawings

Type 70.61T
Screw terminal



Type 70.62T
Screw terminal



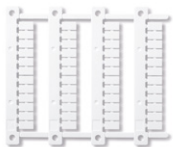
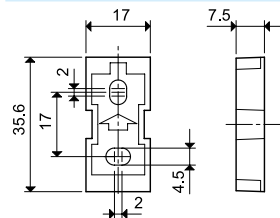
Accessories



020.01

Adaptor for panel mounting, plastic, 17.5 mm wide

020.01



060.48

Sheet of marker tags, plastic, 48 tags, 6 x 12 mm, for CEMBRE's thermal transfer printers for type 70.62

060.48