

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 +A1:2016 (protection against fire of materials), EN 61373 (resistance against random vibrations and shock, Category 1, Class B), EN 50155 (resistance to temperature and humidity, T1 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

Screw terminal



* Short term (10 min) +70°C

For outline drawing see page 5

70.61T



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

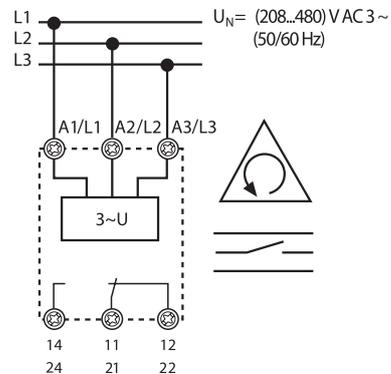
- Phase loss
- Phase rotation

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: 30/110/220 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		AgCdO	AgNi

Supply specification

Nominal system voltage (U_N)	V AC 3 ~	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 3 ~	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.

7 0 . 6 1 . 8 . 4 0 0 . 0 . 0 . 0 . 0 T

Series	7 0	D: Fault memory option 0 = No fault memory
Type	6 1	C: Time delay setting 0 = Fixed switch-off delay
No. of poles	8	B: Contact circuit 0 = CO
Supply version	4 0 0	A: Detection values 0 = Non-adjustable detection values
Supply voltage	0 0	

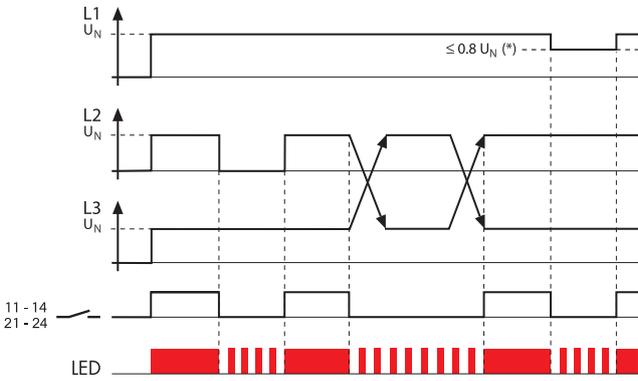
6 = 3 phase loss and rotation monitoring
1 = 1 pole
2 = 2 pole
8 = AC (50/60 Hz)
400 = 208...480 V AC 3~

Technical data

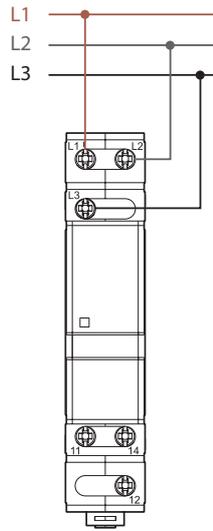
Insulation			
Insulation	between supply and contacts	Dielectric strength	Impulse (1.2/50 μ s)
	between open contacts	3000 V	5 kV
		1000 V	1.5 kV
EMC specifications			
Type of test		Reference standard	
Electrostatic discharge	contact discharge	EN 61000-4-2	4 kV
	air discharge	EN 61000-4-2	8 kV
Fast transients (burst) (5-50 ns, 5 kHz)	on A1, A2, A3	EN 61000-4-4	2 kV
Surge (1.2/50 μ s)	differential mode	EN 61000-4-5	4 kV
Other data			
Start up time (NO contact closure after energising)	s	< 2	
Regeneration level (Maximum)	$\leq 80\%$ 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

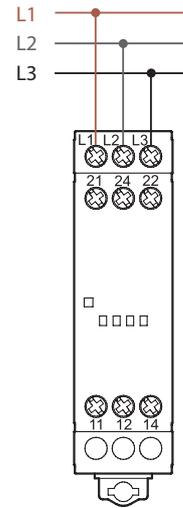
Output relay On (NO closed) when all OK: positive logic.

Type	Phase loss and phase rotation	
70.61T 70.62T		<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



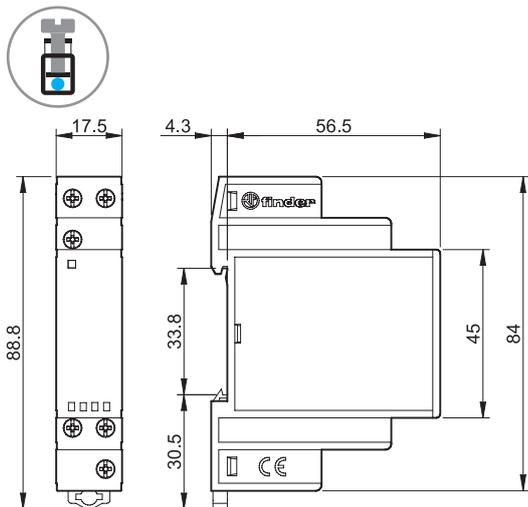
Type 70.61T



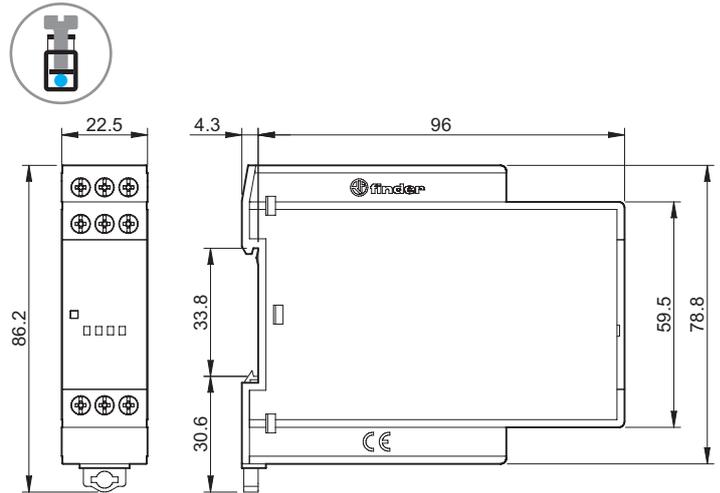
Type 70.62T

Outline drawings

70.61T
Screw terminal



70.62T
Screw terminal



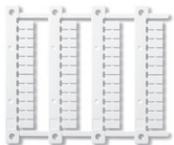
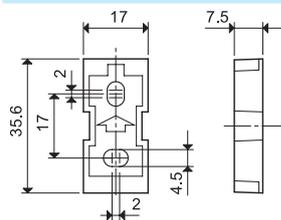
Accessories



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



020.24

Sheet of marker tags, plastic, 24 tags, 9 x 17 mm for type 70.61

020.24

