



# Finder 72 Series - Priority Change Relay



## Features

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



• Multi-function (MI, ME, M2, M1)

Screw terminal



For outline drawing see page 6

### Contact specification

Contact configuration	2 NO (2 SPST-NO)	
Rated current / Max. peak current	A	12 / 20
Rated voltage / Max. switching voltage	V AC (50/60Hz)	250 / 400
Rated load AC 1	VA	3,000
Rated load AC 15	VA	1,000
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 x 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	1,000	
Ambient temperature	°C	-20...+50	
Protection category		IP20	
Approvals (according to type)		CE	

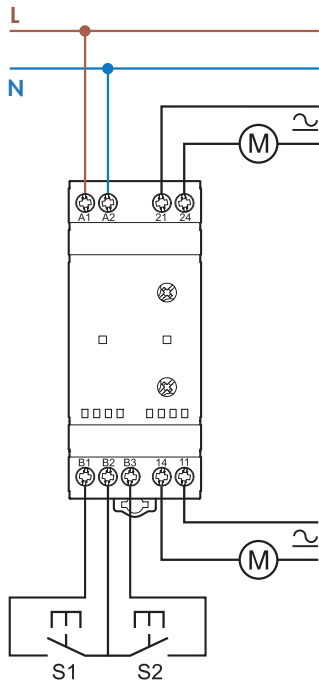
## Functions

	<p><b>(M1) Outputs alternate on successive applications of supply voltage</b></p> <ul style="list-style-type: none"> <li>• Application of the supply voltage to A1-A2 forces just one output contact to close, but the contact that closes will alternate between 11-14 and 21-24 on each successive application of the supply – ensuring even wear across both motors.</li> <li>• The other output contact can be forced closed by the closure of either S1 or S2 - but to limit high current surges the other motor cannot start within T seconds of the first motor.</li> </ul>
	<p><b>(M2) Outputs alternate according to control signal</b></p> <ul style="list-style-type: none"> <li>• The supply voltage is permanently applied to A1-A2. When closed, S1 forces just one output contact to close. The contact that closes will alternate between 11-14 and 21-24 on each successive S1 closure - ensuring even wear across both motors.</li> <li>• If closed, S2 forces both output contacts to close (irrespective of S1). However, to limit high current surges, both motors cannot start within T seconds of each other.</li> </ul>
	<p><b>(M2) Output 2 (21-24) only</b></p> <ul style="list-style-type: none"> <li>• Supply permanently applied to A1-A2.</li> <li>• Closure of either S1 or S2 will close output contact 2 (21-24). Use when load 1 (11-14) is out of service.</li> </ul>
	<p><b>(M1) Output 1 (11-14) only</b></p> <ul style="list-style-type: none"> <li>• Supply permanently applied to A1-A2.</li> <li>• Closure of either S1 or S2 will close output contact 1 (11-14). Use when load 2 (21-24) is out of service.</li> </ul>

## LED indications

	LED
1 device in stand-by, output not activated	
2 output not activated, timing in progress	
3 output not activated (only functions M1/M2)	
4 output activated	

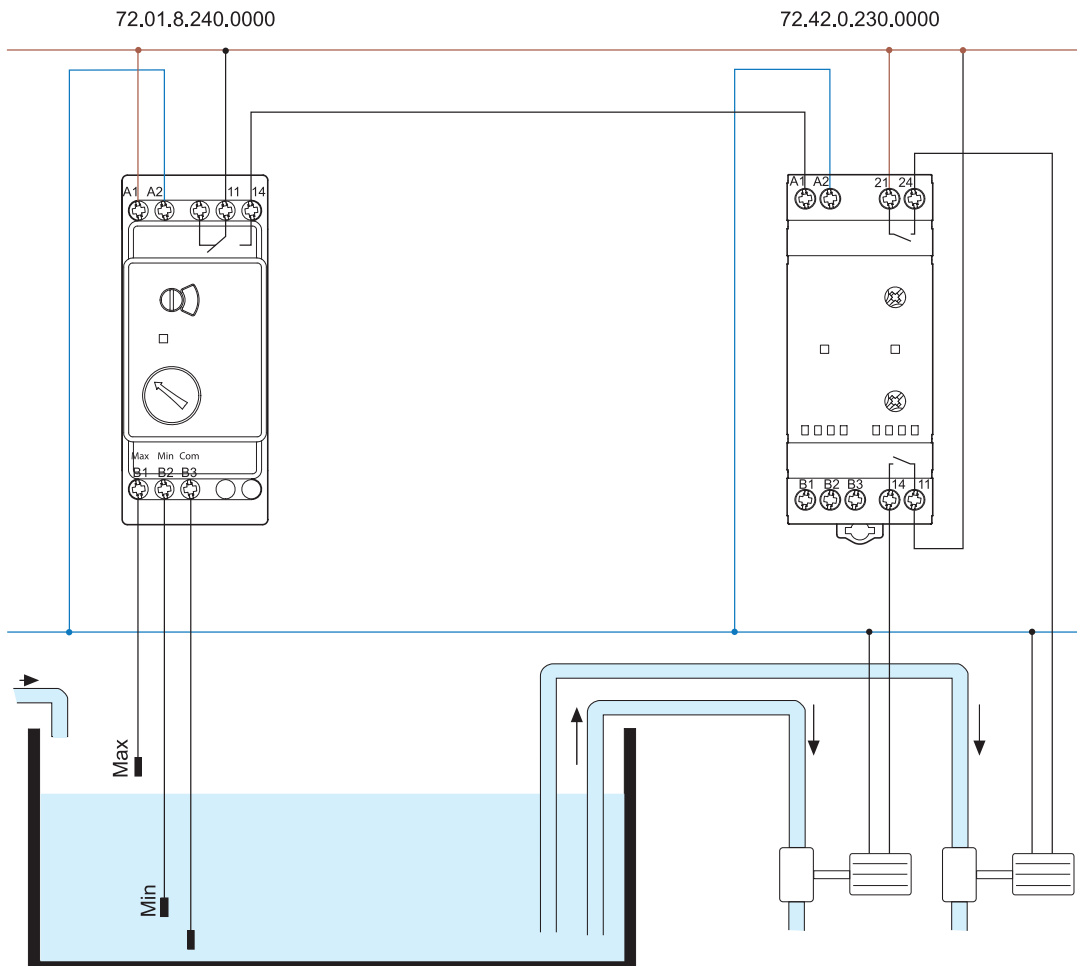
## Wiring diagrams



## MI function example

This shows the 72.42 Priority change relay working in conjunction with a single 72.01 level controller. Under normal conditions the liquid level is expected to remain within the range shown as Min to Max. In this case the function of the 72.42 will be to alternate the duty between both pumps, to even wear across both pumps.

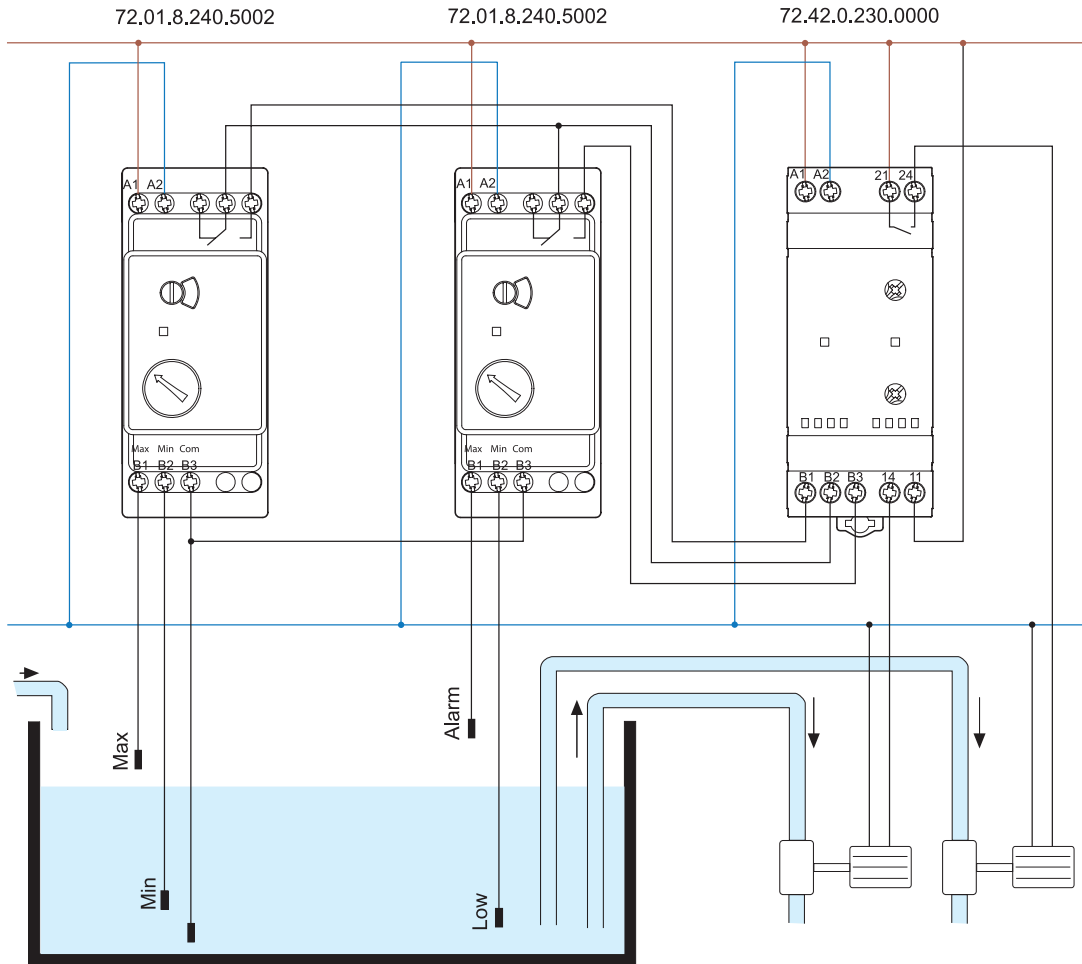
There is no provision to run both pumps simultaneously.



## ME function example

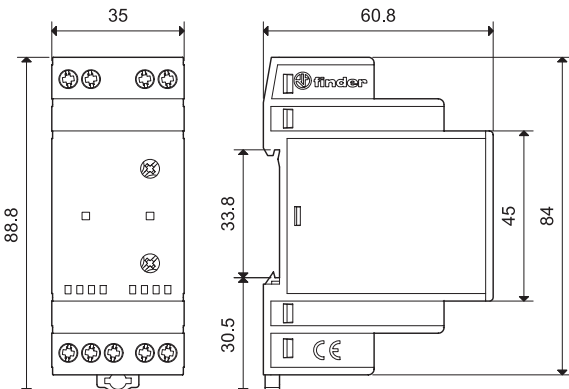
This shows the 72.42 Priority change relay working in conjunction with two 72.01 level controllers. Under normal conditions the liquid level is expected to remain within the range shown as Min to Max. In this case the function of the 72.42 will be to alternate the duty between both pumps, to even wear across both pumps. Should the liquid level rise above the Alarm level then the function of the 72.42 will call for the simultaneous operation of both pumps, by virtue of the signal to terminal B3 from the Alarm/Low level controller.

Note: due to the low level of 72.42 control signals, it is suggested to use level controller 72.01.8.240.5002 because of its superior low load switching capability.



## Outline drawings

72.42  
Screw terminal



## Accessories



020.03

Separator for rail mounting, plastic, 3 mm wide

