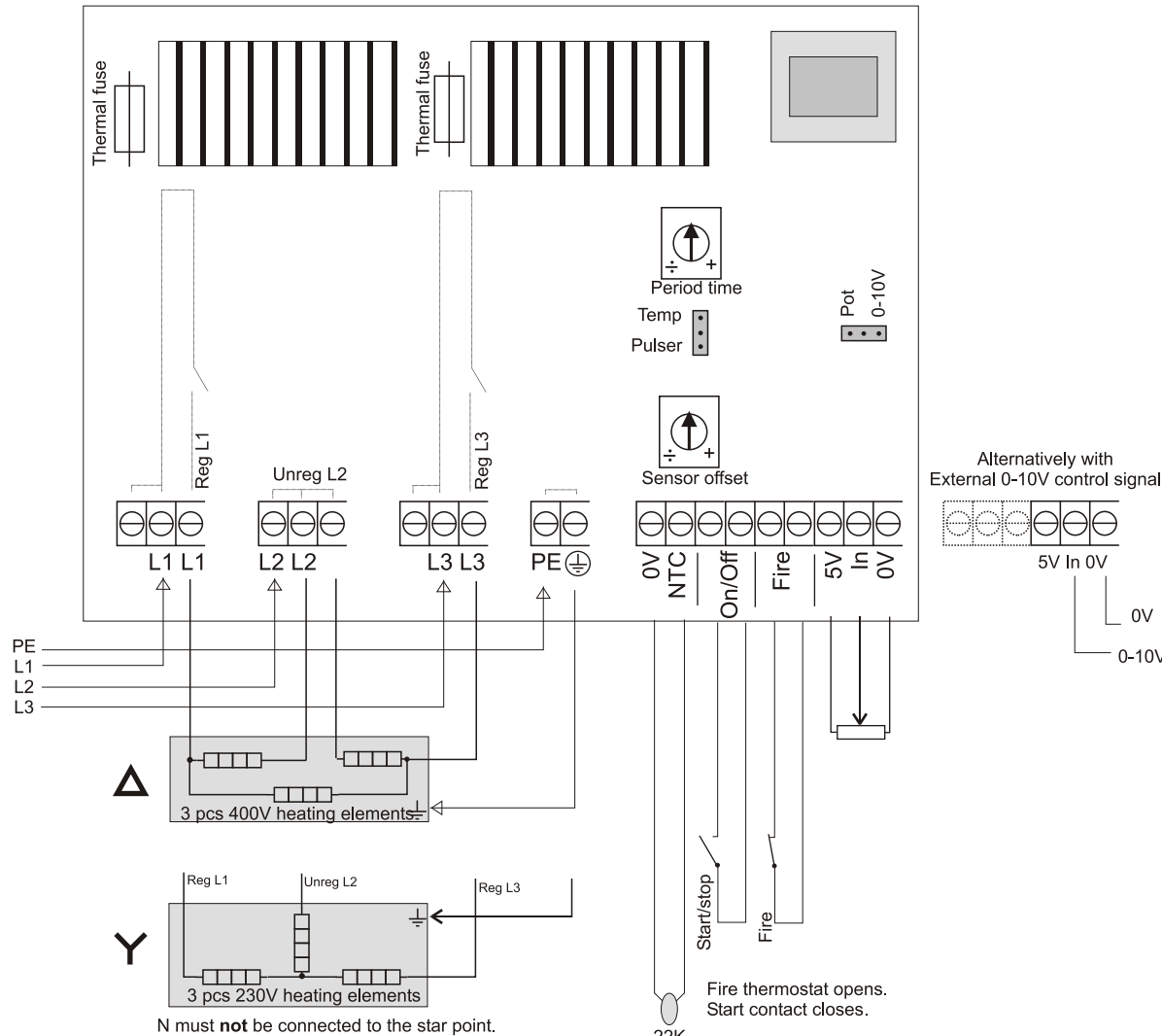


# ES 520

## Electrical heating element power modul and regulator

### Connection diagram:



N must **not** be connected to the star point.

Fire thermostat opens.  
Start contact closes.

**If the fire thermostat or start/stop are not used, they should be shortened.**

Potentiometer and 0-5V have identical jumper settings.  
At 0-10V control signal the jumper is moved to pos. 0-10V

### Technical data :

Supply:	400 V AC, 50 Hz
Mains fuse:	max. 16A
Load:	0,3 -16A per output.
Enclosure:	IP 00/54 w/o/enclosure-w/enclosure
Dimensions (HxWxD):	220 x 270 x 110 mm w/o/couplings.
Period time:	10 sec. - 20 minutes
Xp in heat. reg. part:	approx. 2°C
Set point:	0-40°C
Potentiometer value:	10K, 47K, 100K
0 -10V input imped.:	Typically 20K ohm
Op. temperature:	0-30°C at full load in encl.

### Description:

Heat output with integrated pulse/wave train, controlled by potentiometer, 0-5V or 0-10V control signal.  
Input for external start/stop switch and fire thermostat.

Equipped with input for 22K NTC sensor. The board can therefore also be used as an independent heat regulator. In this case the control signal or the potentiometer is the set

### Adjustment:

The period time is to be adjusted depending on the load to ensure that current regulations are observed. Factory settings are approx. 10 seconds.  
Control signal (0-5V/potentiometer or 0-10V) is selected by means of jumpers.  
The functions (normal pulser or temperature regulator with 22K NTC sensor) are chosen by means of jumper.  
If sensor is used, the tolerance can be fine adjusted on the trimmer, if required.

### Mounting:

The box should be wall mounted with the clamp rail facing downward, and it should be connected in accordance with the connection diagram and current regulations.  
It is important with a good clearance around the box: 20 cm below and above the box and 10 cm clearance on the sides.  
Finally a 5 mm drain hole should be drilled in the bottom.

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Rev.: 3.0  
Manufactured by: **LS Control A/S**

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