

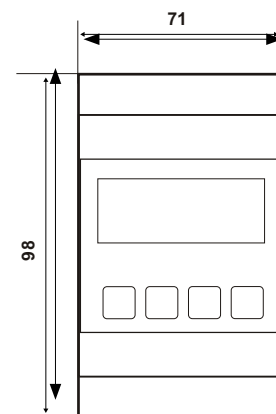
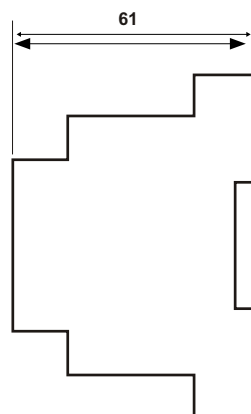
L03B..

ON/OFF - P.I.D. thermostats with 1 or 2 outputs with temperature alarm management

For 1- or 2-outlet heating or cooling systems with 1 probe.



Dimensions (mm)



	Sensor	Pwr. Supply	Num outputs	Measuring range	Resolution	Probe accuracy	Degree of protection
				°C	°C		
L03BI1A	1 NTC 10K* probe LS130 included	12Vac / 7..30Vdc ±10%, 3W	2	-40 - 105	0.1[-19.9-99.9], 1	<±0.3°C(-40-100), ±1°C	IP40 (back panel)
L03BI2A	1 NTC 10K* probe LS130 included						
L03BM1B	1 NTC 10K* probe LS130 included	230Vac±10%, 50/60Hz, 3W	1	-40 - 105	0.1[-19.9-99.9], 1	<±0.3°C(-50-150), ±1°C	IP40 (back panel)
L03BM2B	1 NTC 10K* probe LS130 included		2				

* A PTC1000 (LS120, not included) can also be connected instead of the NTC10K

ELECTRICAL CHARACTERISTICS

Output on single-pole relay in deviation.

Contact rating 16(4)A 240 Va.c. for each output (L03BI1A-L03BI2A).

Contact rating 12(3.6)A 240 Va.c. for each output (L03BM1B-L03BM2B).

Power consumption 3W.

REGULATIONS AND APPROVALS

Compliant with EN60730-1; EN60730-2-9; EN55022 (Class B); EN50082-1.

INSTALLATION

DIN rail mounting.

OPERATION

Type of control: can operate in ON/OFF or PID mode. Temperature alarm management for output 2 (models L03BI2A and L03BM2B only).

ON/OFF control: in ON/OFF mode, the output is ON or OFF depending on the input temperature, setpoint (1SP) and hysteresis value (1HY).

Hysteresis indicates the magnitude of the setpoint temperature deviation to reactivate the output.

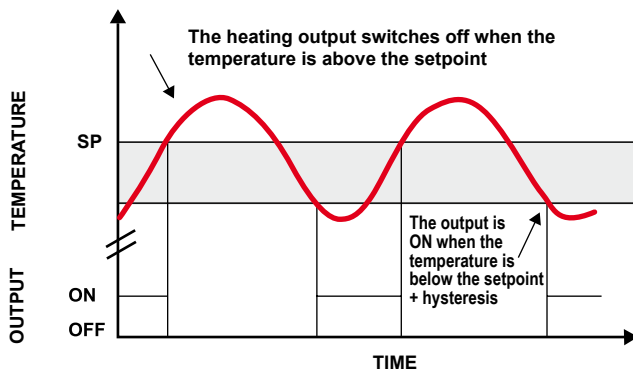
PID control: in PID mode the output is ON for a fraction of cycle time 1CT.

The cycle time characterises the dynamics of the system to be controlled and influences the accuracy of the control.

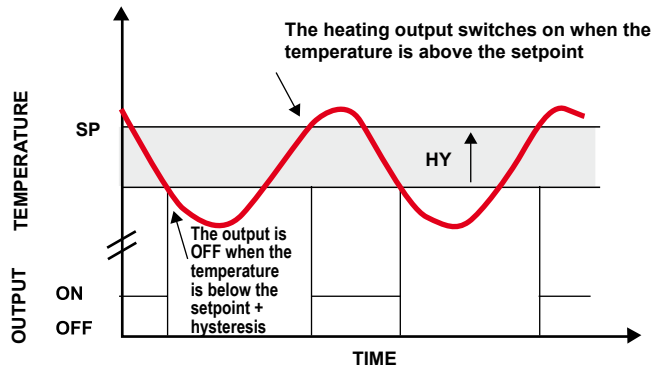
Proportional control.

Integrative proportional control.

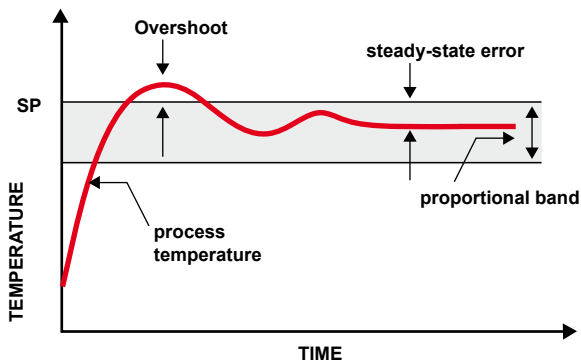
HEATING ON/OFF CONTROL



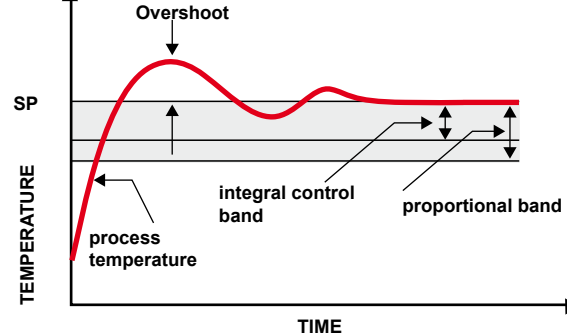
ON/OFF CONTROL IN COOLING



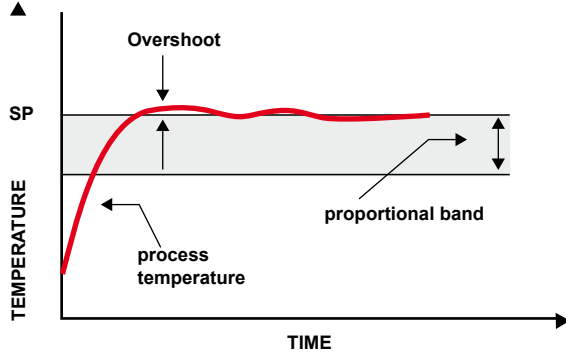
PROPORTIONAL CONTROL (P) IN HEATING



PROPORTIONAL-INTEGRATIVE CONTROL (PI) IN HEATING



PROPORTIONAL-INTEGRATIVE-DERIVATIVE (PID) HEATING CONTROL



FEATURES

NTC10k inputs.

Configurable parameters:

- cooling or heating function by assigning positive or negative sign to the differential or proportional band respectively;
- minimum or maximum setpoint limits;
- ON or OFF status of the output in the event of a defective probe;
- minimum ON/ OFF time of the output independent of the temperature value
- absolute or relative temperature alarms of output 2 (models with two outputs only).

Operating temperature -10 to 50°C.

Degree of frontal protection IP40 if correctly installed on back of panel.

ON/OFF button on the front.

ACCESSORIES



LS130
NTC10k probe,
scale range from -40 to 105°C,
2 wires



LT312U
Transformer
230/12V 50-60Hz 3VA