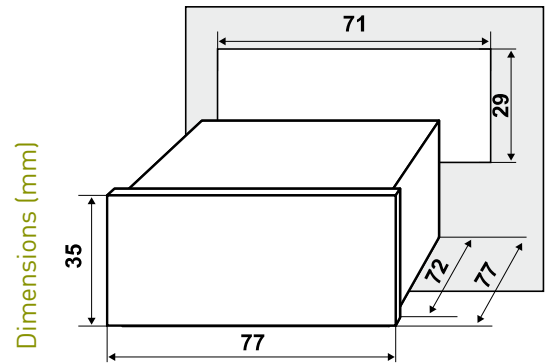


L02A.. - L02C.. - L02D..

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

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



	Sensor	Power supply	Num outputs	Measuring range °C	Resolution °C	Probe accuracy	Degree of protection
L02AI2B	1 NTC 10K* probe LS130 included	12Vac/dc	2	-40 - 105	0.1(-19.9-99.9), 1	<±0.3°C(-40-100), ±1°C	IP55 (panel)
L02AM2	1 NTC 10K* probe LS130 included	115-230Vac 50Hz	2	-40 - 105	0.1(-19.9-99.9), 1	<±0.3°C(-40-100), ±1°C	IP55 (panel)
L02CI1B	1 PT 100 probe LS140 excluded	12Vac/dc	1	0 - 400	0.1(-19.9-99.9), 1	<±0.3°C(-50-150), ±1°C	IP55 (panel)
L02CI2B	1 PT 100 probe LS140 excluded	12Vac/dc	2	0 - 400	0.1(-19.9-99.9), 1	<±0.3°C(-50-150), ±1°C	IP55 (panel)
L02CM1	1 PT 100 probe LS140 excluded	115-230Vac 50Hz	1	0 - 400	0.1(-19.9-99.9), 1	<±0.3°C(-50-150), ±1°C	IP55 (panel)
L02CM2	1 PT 100 probe LS140 excluded	115-230Vac 50Hz	2	0 - 400	0.1(-19.9-99.9), 1	<±0.3°C(-50-150), ±1°C	IP55 (panel)
L02DI1B	1 J-thermocouple LS150 excluded	12Vac/dc	1	0 - 450	0.1(-19.9-99.9), 1	<± 3°C	IP55 (panel)
L02DI2B	1 J-thermocouple LS150 excluded	12Vac/dc	2	0 - 450	0.1(-19.9-99.9), 1	<± 3°C	IP55 (panel)
L02DM1	1 J-thermocouple LS150 excluded	115-230Vac 50Hz	1	0 - 450	0.1(-19.9-99.9), 1	<± 3°C	IP55 (panel)
L02DM2	1 J-thermocouple LS150 excluded	115-230Vac 50Hz	2	0 - 450	0.1(-19.9-99.9), 1	<± 3°C	IP55 (panel)

LT312U Power transformer, primary 230Vac, secondary 12Vac

ELECTRICAL CHARACTERISTICS

Output 1 on single-pole deviating relay, output 2 on ON/OFF relay.

Contact rating for models with one output L02CI1B-L02CM1-L02DI1B-L02DM1:

- 12(4)A 240 Va.c.

Contact rating for models with two outputs L02AM2-L02CM2-L02DM2:

- 12(4)A 240 Va.c. for output 1

- 7(2)A 240Vac for output 2

Contact rating for models L02AI2B-L02CI2B-L02DI2B

- 10A 24 Vac/dc for output 1

- 1A 24Vac/dc for output 2 (models)

Power consumption 3W.

REGULATIONS AND APPROVALS

Compliant with EN60730-1, EN60730-2-9, EN55022 (CLASS B), EN50082-1.

INSTALLATION

Flush mounting (panel) with fixing brackets.

OPERATION

Type of control: can operate in ON/OFF or PID mode.

Temperature alarm management for output 2 models L02AI2B-L02AM2-L02CI2B-L02CM2-L02DI2B-L02DM2.

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.

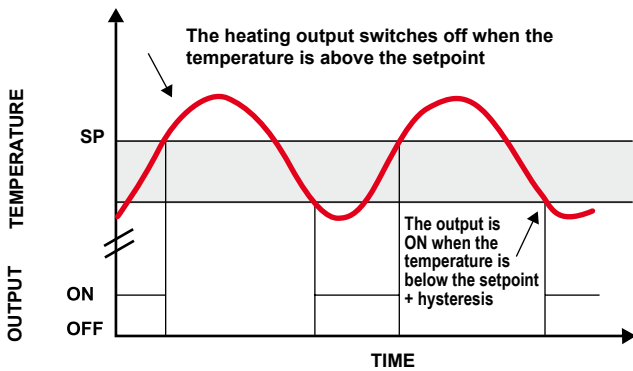
PID control: in PID mode the output is ON for a fraction of cycle time 1CT.

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

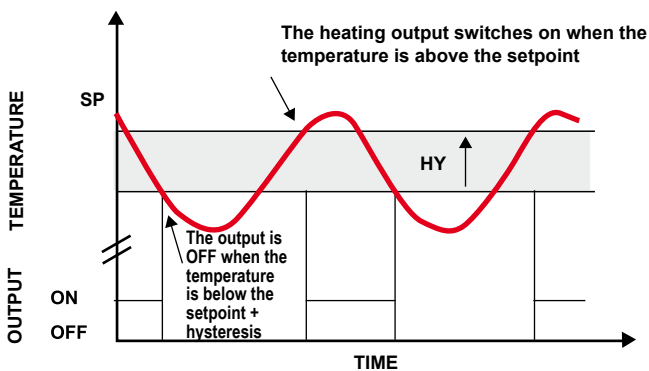
Proportional control.

Integrative proportional control.

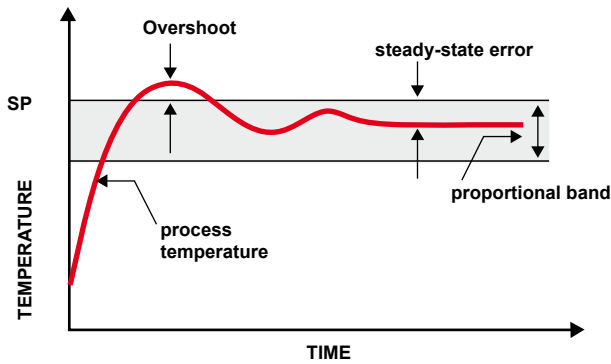
HEATING ON/OFF CONTROL



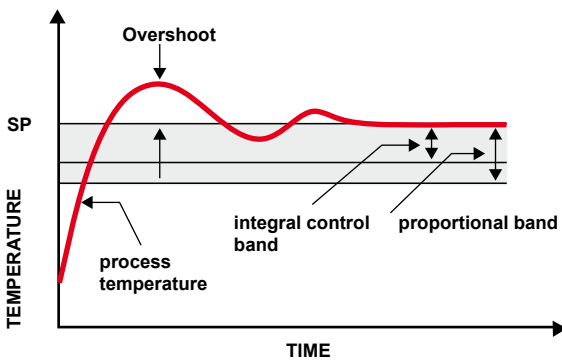
ON/OFF CONTROL IN COOLING



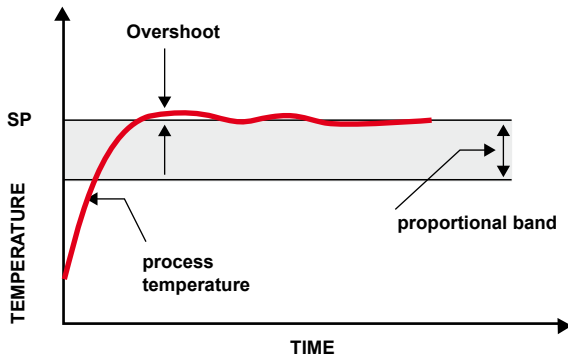
PROPORTIONAL CONTROL (P) IN HEATING MODE



PROPORTIONAL-INTEGRATIVE (PI) CONTROL IN HEATING MODE



PROPORTIONAL-INTEGRATIVE-DERIVATIVE (PID) HEATING CONTROL



ELECTRICAL CHARACTERISTICS

Inputs: NTC10k or PT 100 or thermocouple.

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;
- absolute or relative temperature alarms of output 2 (models with two outputs only);
- minimum ON/OFF time of the output independent of the temperature value.

Operating temperature -10 to 50°C.

Degree of protection IP55 if correctly installed in panel with sealing gasket.

ON/OFF button on the front.

ACCESSORIES



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



LS120
PTC1000 probe,
scale range from -40 to 105°C,
2 wires.



LS140
PT100 probe, scale range from 0 to 400°C,
3 wires + screen,
cable length 1 metre.



LS150
Thermocouple probe J, scale range from 0 to 450°C,
2 wires,
cable length 3 metres.



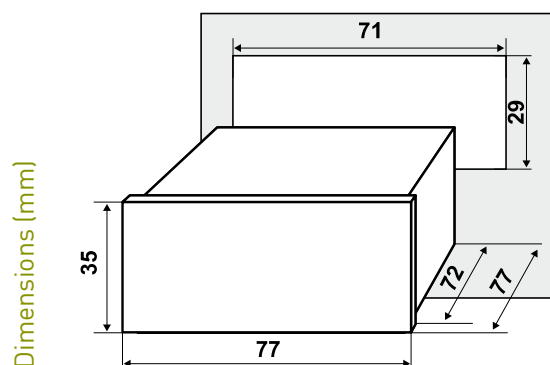
LT312U
Transformer 230/12V 50-60Hz 3VA.

L02B..

ON/OFF - P.I.D.

thermostats with flush mounting

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



	Sensor	Power supply	Num outputs	Measuring range °C	Resolution °C	Probe accuracy	Degree of protection
L02BI1A	1 NTC 10K* probe LS130 included	12Vac/dc	1	-40 - 105	0.1(-19.9-99.9), 1	<±0.3°C(-40-100), ±1°C	IP55 (panel)
L02BM1A	1 NTC 10K* probe LS130 included	230Vac	1	-40 - 105	0.1(-19.9-99.9), 1	<±0.3°C(-40-100), ±1°C	IP55 (panel)

ELECTRICAL CHARACTERISTICS

Output on single-pole relay in deviation.

Contact rating 16(4)A 240 Va.c.

Power consumption 2W.

REGULATIONS AND APPROVALS

Compliant with EN60730-1, EN60730-2-9, EN55022 (CLASS B), EN50082-1.

INSTALLATION

Flush mounting (panel) with fixing brackets.

OPERATION

Type of control: can operate in ON/OFF or PID mode.

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.

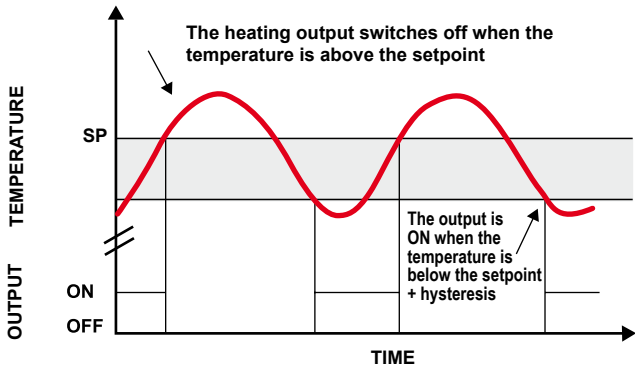
PID control: in PID mode the output is ON for a fraction of cycle time 1CT.

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

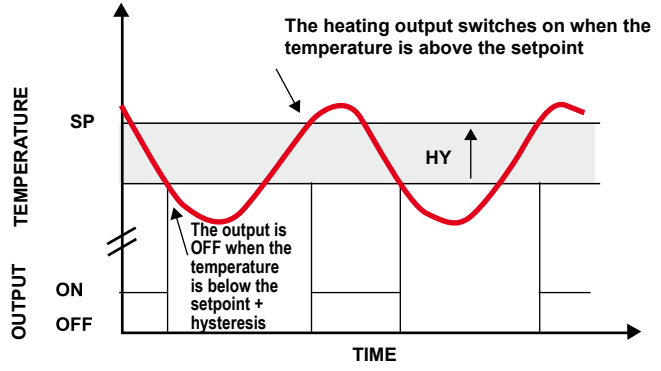
Proportional control.

Integrative proportional control.

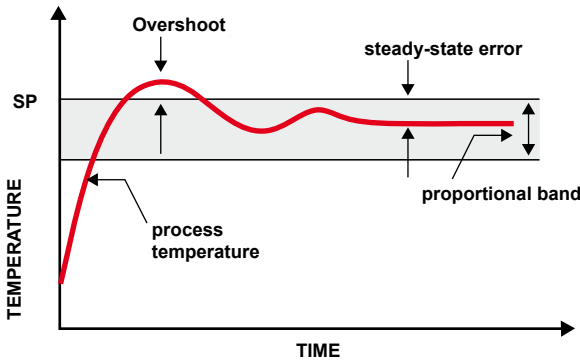
HEATING ON/OFF CONTROL



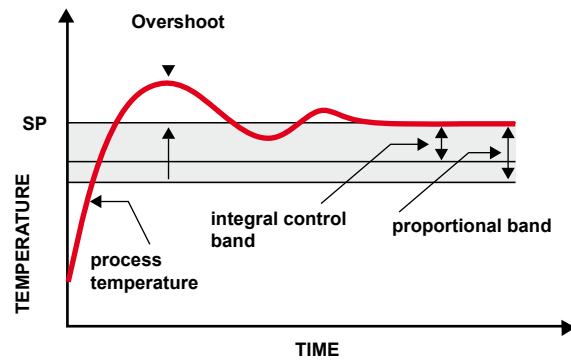
ON/OFF CONTROL IN COOLING



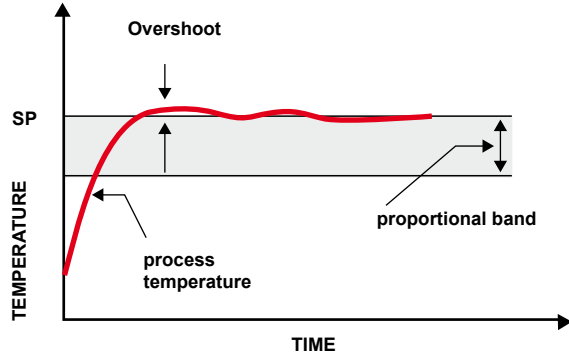
PROPORTIONAL CONTROL (P) IN HEATING



PROPORTIONAL-INTEGRATIVE CONTROL (PI) IN HEATING



PROPORTIONAL-INTEGRATIVE-DERIVATIVE (PID) HEATING CONTROL



ELECTRICAL CHARACTERISTICS

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.

Operating temperature -10 to 50°C.

IP55 degree of protection when properly installed in panel with sealing gasket.

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