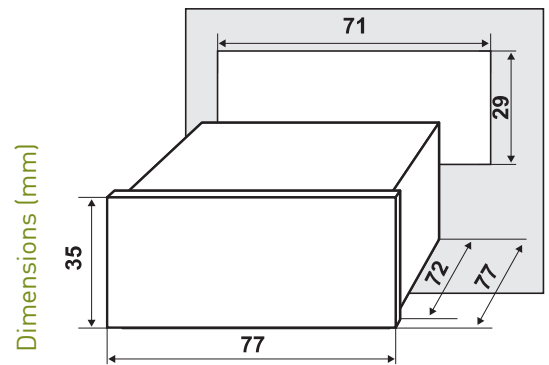


L02A.. - L02C.. - L02D..

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	
L02AI2C	1 NTC 10K* probe LS130 included	12Vac/7÷30Vdc	2	-40 - 105	0.1(-19.9-99.9), 1	±0.3°C(-40÷100), ±1°C	IP54 (panel)
L02AM2A	1 NTC 10K* probe LS130 included	100÷240Vac 50/60Hz	2	-40 - 105	0.1(-19.9-99.9), 1	±0.3°C(-40÷100), ±1°C	IP54 (panel)
L02CI1C	1 PT 100 probe LS140 excluded	12Vac/7÷30Vdc	1	0 - 400	0.1(-19.9-99.9), 1	±0.3°C(-50÷150), ±1°C	IP54 (panel)
L02CI2C	1 PT 100 probe LS140 excluded	12Vac/7÷30Vdc	2	0 - 400	0.1(-19.9-99.9), 1	±0.3°C(-50÷150), ±1°C	IP54 (panel)
L02CM1A	1 PT 100 probe LS140 excluded	100÷240Vac 50/60Hz	1	0 - 400	0.1(-19.9-99.9), 1	±0.3°C(-50÷150), ±1°C	IP54 (panel)
L02CM2A	1 PT 100 probe LS140 excluded	100÷240Vac 50/60Hz	2	0 - 400	0.1(-19.9-99.9), 1	±0.3°C(-50÷150), ±1°C	IP54 (panel)
L02DI1C	1 J-thermocouple LS150 excluded	12Vac/7÷30Vdc	1	0 - 450	0.1(-19.9-99.9), 1	± 3°C	IP54 (panel)
L02DI2C	1 J-thermocouple LS150 excluded	12Vac/7÷30Vdc	2	0 - 450	0.1(-19.9-99.9), 1	± 3°C	IP54 (panel)
L02DM1A	1 J-thermocouple LS150 excluded	100÷240Vac 50/60Hz	1	0 - 450	0.1(-19.9-99.9), 1	± 3°C	IP54 (panel)
L02DM2A	1 J-thermocouple LS150 excluded	100÷240Vac 50/60Hz	2	0 - 450	0.1(-19.9-99.9), 1	± 3°C	
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 L02CI1C-L02CM1A-L02DI1C-L02DM1A:

- 21,6 (3,6)A - 240Vac

Contact rating for models with two outputs L02AM2A-L02CM2A-L02DM2:

- 21,6 (3,6)A - 240Vac for output 1

- 6 (1)A - 240Vac for output 2

Contact rating for models L02AI2C-L02CI2C-L02DI2C

- 21,6 (3,6)A - 240Vac for output 1

- 6 (1)A - 240Vac for output 2 (models)

Power consumption 3W.

REGULATIONS AND APPROVALS

Compliant with EN61000-6-1, EN61000-6-3, EN60730-1, EN60730-2-9, RoHS Directive 2015/863/EU, REACH Directive 2021/979/EU.

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 L02AI2C-L02AM2A-L02CI2C-L02CM2A-L02DI2C-L02DM2A.

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.

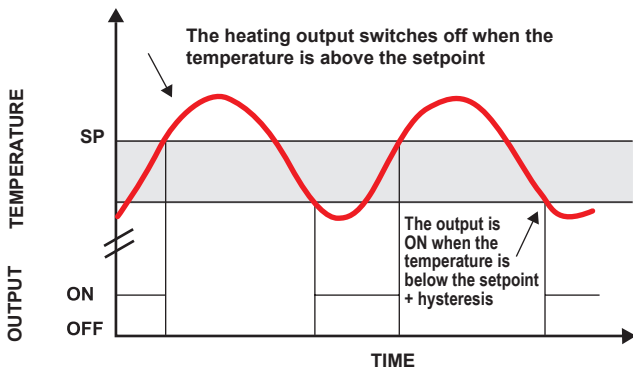
PID control: in PID mode the output is ON for a fraction of cycle time 1CT.

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

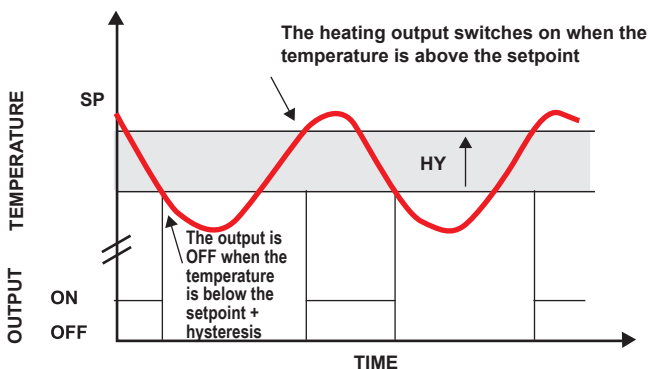
Proportional control.

Integrative proportional control.

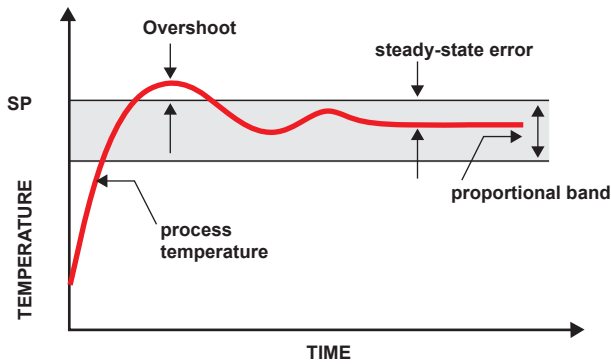
HEATING ON/OFF CONTROL



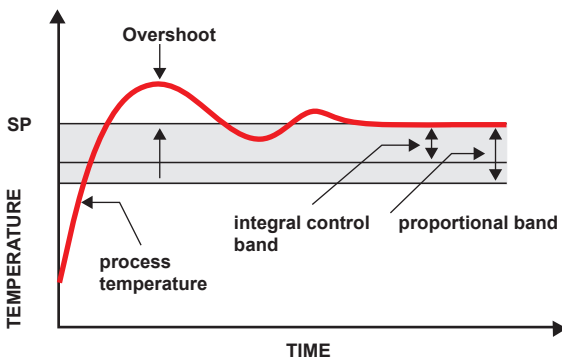
ON/OFF CONTROL IN COOLING



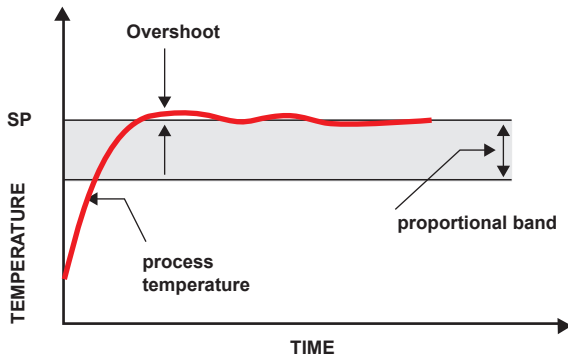
PROPORTIONAL CONTROL (P) IN HEATING MODE



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.

Relative humidity 15 ÷ 80%.

Degree of protection IP54 if correctly installed in panel with sealing gasket.

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.