

- **Temperature display**
LCD 2 lines of 16 characters
(temperature , set point , output state)
- **Temperature input**
Pt100 - 2 wires (-50 °C+ 250 °C)
- **Fully configurable**
with pushbuttons
- **Breaking capacity 16 A resistive**
- **Mounting in IP66 waterproof enclosure**
Transparent cover



The THL105 is a compact field mount thermostat for regulating heating cables and ribbons, allowing control of resistive load up to 3.5 Kilowatts. The digital regulation allows to combine precision and ease of use. Temperature and set point are displayed on a large LCD display.

DESCRIPTION:

Temperature measurement:

- Rtd platinum sensor. PT100 in 2 wires mounting.

Sensor correction:

- Linearization.
- Line compensation for long sensors cables (adjustable offset).

Front face:

- Wide temperature liquid crystal display, 2 lines of 16 characters (backlight), resolution of 1 °C from -50 °C to +250 °C.
- Sensor break or over range detection display "Err LO" if the sensor is short-circuited, display "Err HI" if the sensor is open / broken.
- Display of relay state,
- 3 push buttons on the front:
 - Direct access to the set point (up, down),
 - Advanced configuration (hysteresis, delay).

Relay:

- output heating element switched on both lines (phase, neutral) to completely isolate the load,
- "hot mode" regulation with load powered for a measured temperature less than the adjusted threshold.

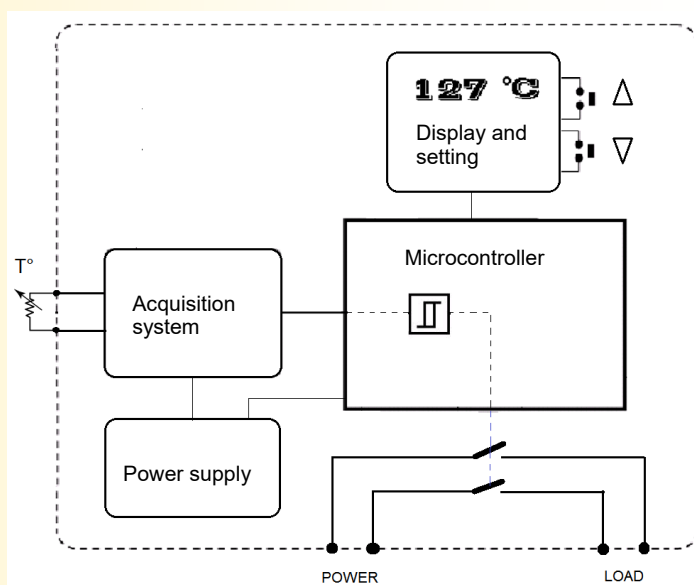
Features:

- Conformal coating,
- mounting in IP66 polycarbonate waterproof enclosure (THL105-ip), transparent cover,
- wiring:
 - temperature sensor connection by spring terminals max : 1 mm²
 - heating element connection on pluggable spring terminal block. max: 2.5 mm²
- input through cable gland.
- isolation : power / input / relay.
- firmware update is possible via serial link for special applications

Characteristics:

- Long-term stability better than 0.1 % / year.
- Operating temperature up to 75 °C.
- Excellent EMC performance.
- Resistant, protected against shock and vibration.

Synoptic:



Version and order code:

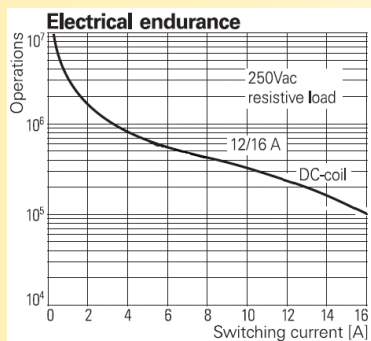
- THL105:** - Thermostat alone.
- THL105-ip** - Thermostat mounted in IP66 waterproof case.

INPUT

TYPE	RANGE	PRECISION
2 wires PT100	-50.....+250 °C	+/- 0.3 °C
Measure current		10 mA
line influence		not applicable

RELAY

Two closing contacts connected to the power supply.
 Breaking capacity 16 A / 250 V
 Typical response time 2000mS
 of the thresholds outputs (filtering of measurement cycles)
 Repeatability of the triggering +/- 0,2 °C



POWER

(To define at order)

230 Vac 50-60 Hz +/- 15 %,
 115 Vac 50-60 Hz +/- 15 %,
 Other on demand.
 consumption < 1.5 VA.

ENVIRONMENT

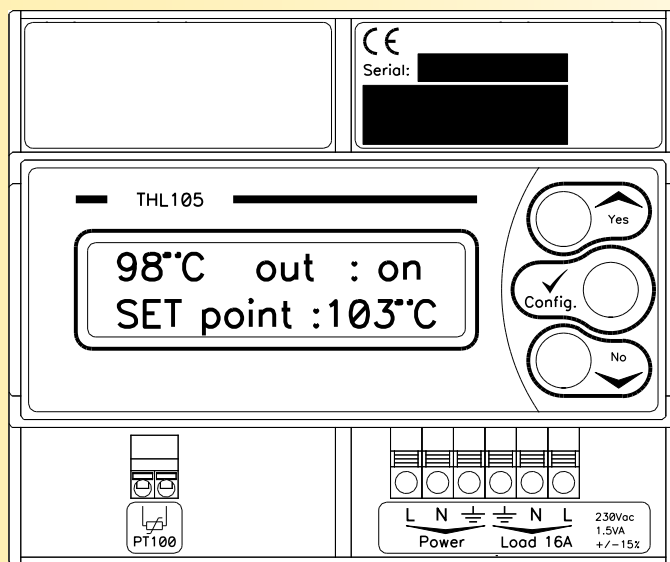
Operating temperature -25 to 65 °C
 Storage temperature -40 to 85 °C
 Thermal drift (% of full scale) < 0.02 % / °C
 Humidity 85 % not condensed
 Protection rating (according to EN 60529)
 electronic alone IP 20
 Protection enclosure IP 66
 Weight 300g

Electromagnetic compatibility 2014/30/UE / Low Voltage Directive 2014/35/UE

Immunity standard for industrial environments EN 61000-6-2		Emission standard for industrial environments EN 61000-6-4
EN 61000-4-2 ESD	EN 61000-4-8 AC MF	EN 55011 group 1 class A
EN 61000-4-3 RF	EN 61000-4-9 pulse MF	
EN 61000-4-4 EFT	EN 61000-4-11 AC dips	
EN 61000-4-5 CWG	EN 61000-4-12 ring wave	
EN 61000-4-6 RF	EN 61000-4-29 DC dips	



WIRING AND OUTLINE DIMENSIONS:



Thermostat without enclosure

Weatherproof enclosure dimensions: 130 x 130 x 75 mm.

