FL1-D

Electronic thermostat for underfloor heating, for wallbox mounting

Floorigo FL1-D is an electronic 1-stage thermostat with display for underfloor heating. It has a two pole switch and economy setback function.

- **Setpoint range 0...40°C**
- **On/off-switch**
- **Sensor included and input for an external sensor**

- **Week-based scheduler**
- **Closing relay 13 A, 230V**
- **Alarm detection**

Floorigo FL1-D is an electronic one-stage thermostat for controlling underfloor heating. It is intended for mounting in a standard wallbox with 60 mm fastening screw distance.

The unit has front covers that suit ELKO or ELJO casing installation systems.

Sensors

Floorigo FL1-D can be used either with the built-in sensor or with an external sensor or with a combination of both internal and external sensors. When using two sensors one is main sensor and one is limiting sensor.

The sensor function is set via the display. The following alternatives can be configured:

- External sensor only
- External sensor with internal MIN/MAX sensor
- Internal sensor only
- Internal sensor with external MIN/MAX sensor

Internal scheduler

FL1-D can be set to follow the built-in scheduler program, which gives the possibility of having two different temperature levels, normal or economy setback. The unit can also be set to ignore the scheduler, giving continuous normal temperature.

Setpoint

The main sensor setpoint is set in the display. The temperature range is 0...40°C.

Minimum/Maximum limitation

It is possible to min and max limit the temperature. The limit values are set in the display.

Which of the sensors is to be the main sensor and which is to be the limiting sensor, and if maximum or minimum limiting is to be applied is also set in the display.

Normal display

It is possible to choose what should be shown in the display during normal mode:

1. Temperature at the built-in sensor
2. Setpoint value
3. Time and weekday
4. Temperature at external temperature sensor (if an external sensor is connected)

Economy setback

FL1-D has settable economy setback.

Alarm

FL1-D can detect and report four different alarm conditions:

AL01 = Internal error. Replace unit.

AL02 = Internal sensor error. Replace unit.

AL03 = External sensor error. Replace sensor.

AL04 = External sensor signal. Excessive disturbance on the sensor signal. Replace sensor and/or inspect the sensor installation and wiring for any creepage voltage between the sensor and surfaces surrounding the sensor. Avoid placing sensor wiring close to high tension wiring.

Optimisation

If optimisation is activated the thermostat will try to estimate the time it takes to reach the comfort setpoint based on the current sensor temperature. Over time it will learn the characteristics of the heating environment, and the energy costs can be minimised.

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Technical data

Supply voltage	230 V AC ±10%, 50 or 60 Hz	
Connection	Screw terminal	
Ambient temperature	0…50°C	
Ambient humidity	Max 90% RH	
Protection class	IP21	
		Factory setting
Setpoint	0...40°C	22°C
Time of day	00:00...23:59	00:00
Day of week	0...7	0 (clock not set)
Comfort program settings 0...3	0 (off)	
Economy lowering	0...-15 K	-5 K
Control type	SE01...SE04	SE01
Optimisation	No/Yes	No
LCD contrast	0...15	8
Sensor calibration	-5...5 K	0
MIN/MAX interval	0...40°C	5/29°C (for ext. sensor)
		15/29°C (for int. sensor)
Reset to factory settings	No/Yes	No (do not reset)
Memory backup (clock)	At least 4 hours	

The product conforms with the requirements of European EMC standards CENELEC EN 61000-6-1 and EN 61000-6-3, European LVD-standards EN/IEC 60 730-1 and EN/IEC 60 730-2-9, and carries the CE mark.
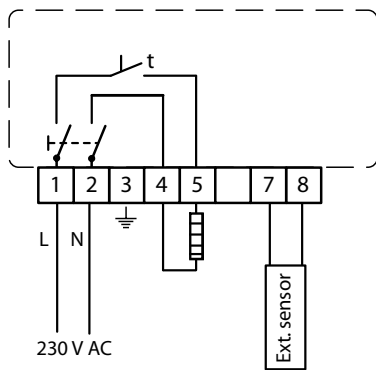
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Inputs

Sensor input   One for external temperature sensor

Outputs

Relay contact   One closing contact, 230 V, maximum 13 A, heating function

Sensor (included)   TG-G240S, screened floor sensor 0…40°C, supplied with 3 m cable, Ø 6.5 mm
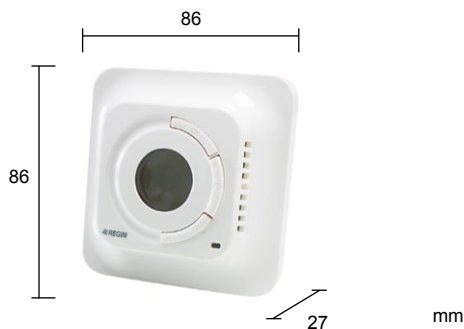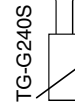
Wiring and dimensions

Wiring external sensor

If an external sensor is to be used, either as main sensor or as limiting sensor, wire it according to the figure below.

°C	Ω
0	15.000
10	13.750
20	12.500
30	11.250
40	10.000

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