FK 150X

ON-OFF simple single output digital thermoregulator

smart guide

Version 1.00 of 2nd December 2003

File fk150x_eng_v1.00.pdf

PT

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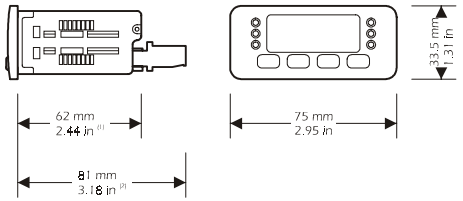
ENGLISH

1 PREPARATIONS

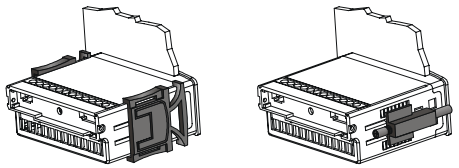
1.1 How to install the instrument

Panel mounting, panel cut out 71 x 29 mm (2.79 x 1.14 in), with click brackets (they are supplied by the builder) or screw brackets (by request).



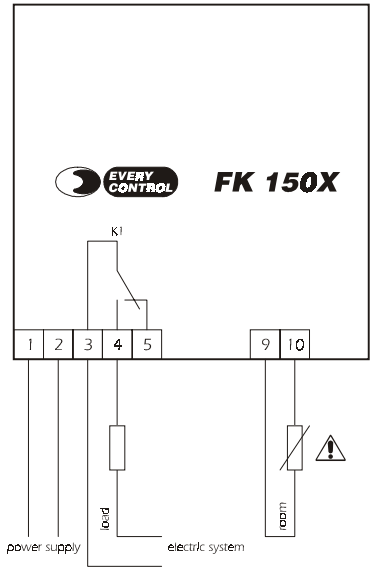
(1) maximum depth with screw terminal blocks

(2) maximum depth with extractable terminal blocks.



installation with click brackets (on the left-hand side, they are supplied by the builder) and screw brackets (on the right-hand side, by request); if you are using screw brackets, you have to moderate the clamping torque, in order not to damage the box and screw brackets.

1.2 Electrical connection



The probe is connected with an high voltage terminal; in order not to get a shock, you have to use probes with double insulation.

2 OPERATION

2.1 Preliminary information

During the normal operation the instrument shows the room temperature.

3 WORKING SETPOINT

3.1 How to set the working setpoint

If you have to modify the working setpoint value:

▪ press set and ↑ or ↓ (3)

(3) you can set the working setpoint between the limits you have set with the parameters r1 and r2.

4 CONFIGURATION PARAMETERS

4.1 How to set the configuration parameters

If you have to gain access the procedure:

▪ press ↑ and ↓ for 4 s; the instrument will show PA 1

If you have to select a parameter:

▪ press ↑ or ↓

If you have to modify the value of the parameter:

- press set and ↑ or ↓

If you have to quit the procedure:

- press ↑ and ↓ for 4 s or do not operate for about 60 s.

5 SIGNALS

5.1 Signals

LED	MEANING
out	Load LED if it is lighted, the load will be ON

6 ALARMS

6.1 Alarms

CODE	REASONS	REMEDIES	EFFECTS
E2 corrupted memory data	there is the corruption of the configuration data of the memory of the instrument	switch off the power supply of the instrument: unless the alarm disappears, you will have to change the instrument	▪ you can not gain access the setting procedures ▪ the load will be forced OFF
E0 room probe alarm	▪ the kind of room probe you have connected is not right ▪ the room probe plays up ▪ the connection instrument-room probe is wrong ▪ the room temperature is outside the limits allowed by the working range of the instrument	▪ test the integrity of the probe ▪ test the instrument-probe connection ▪ test the temperature close to the probe (it has to be between the limits allowed by the working range)	the load will be forced OFF

The instrument shows the indications above flashing.

7 TECHNICAL DATA

7.1 Technical data

Box: self-extinguishing grey.

Size: 75 x 33.5 x 62 mm (2.95 x 1.31 x 2.44 in) the model with screw terminal blocks, 75 x 33.5 x 81 mm (2.95 x 1.31 x 3.18 in) the model with extractable terminal blocks.

Installation: panel mounting, panel cut out 71 x 29 mm (2.79 x 1.14 in), with click brackets (they are supplied by the builder) or screw brackets (by request).

Frontal protection: IP 65.

Connections: screw terminal blocks with pitch 5 mm (0.19 in) for cables up to 2.5 mm² (0.38 sq in, power supply, input and output) or extractable terminal blocks with pitch 5 mm (0.19 in) for cables up to 2.5 mm² (0.38 sq in, power supply, input and output).

Ambient temperature: from 0 to 55 °C (32 to 131 °F, 10 ... 90% of relative humidity without condensate).

Power supply: 230 Vac, 50/60 Hz, 11 VA.

Measure inputs: 1 (room probe) for NTC probes.

Working range: from -40 to 99 °C (-40 to 99 °F).

Setpoint range: from -40 to 99 °C.

Resolution: 1 °C.

Display: one red LED 2-digit display 13.2 mm (0.51 in) high, output status indicator.

Outputs: one 8 A @ 250 Vac relay (change-over contact).

8 WORKING SETPOINT AND CONFIGURATION PARAMETERS

8.1 Working setpoint

LABEL	MIN.	MAX.	U.M.	DEF.	WORKING SETPOINT
	r1	r2	°C	0	working setpoint

8.2 Configuration parameters

LABEL	MIN.	MAX.	U.M.	DEF.	MEASURE INPUTS
/1	-15	15	°C	0	room probe calibration

LABEL	MIN.	MAX.	U.M.	DEF.	REGULATOR
r0	1	15	°C	2	hysteresis (differential, it is relative to the working setpoint)
r1	-40	r2	°C	-40	minimum value you can assign to the working setpoint
r2	r1	99	°C	99	maximum value you can assign to the working setpoint
r3	0	1	—	0	cooling or heating action (0 = cooling action)

LABEL	MIN.	MAX.	U.M.	DEF.	LOAD PROTECTION
C0	0	15	min	0	minimum delay between you turn the instrument ON and the first load activation