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	-99	99	°C	0	cabinet probe calibration (you have to set eight points for adjusting one degree)
/6	-99	99	°C	0	condenser probe calibration (you have to set eight points for adjusting one degree)

LABEL	MIN.	MAX.	U.M.	DEF.	REGULATOR
r0	1	15	°C	2	hysteresis (differential, it is relative to the working setpoint)
r1	-99	r2	°C	-50	minimum value you can assign to the working setpoint
r2	r1	99	°C	50	maximum value you can assign to the working setpoint

LABEL	MIN.	MAX.	U.M.	DEF.	COMPRESSOR PROTECTION
C2	0	15	min	0	minimum delay between the comp. gets OFF and the following activation (it set the minimum delay between you turn the instrument ON and the first comp. activation as well) (4)
C7	0	200	°C	80	temperature alarm threshold for condenser overheat alarm (condenser temperature) (5)
C8	0	200	°C	90	temperature alarm threshold for condenser shut-down alarm (condenser temperature)
C9	0	15	min	1	condenser shut-down alarm exclusion time (6)

LABEL	MIN.	MAX.	U.M.	DEF.	DEFROST
d0	0	99	h	8	defrost interval (0 = the defrost will never automatically be activated)
d3	0	99	min	30	defrost length (0 = the defrost will never be activated)
d6	0	1	—	1	freeze of the temperature showed by the instrument during the defrost (1 = YES) (7)

(4) if you have to clear the delay between you turn the instrument ON and the first compressor activation, press (↓) for 4 s

(5) the hysteresis value is 2 °C

(6) if at the moment you turn the instrument ON the condenser temperature is above the threshold you have set with the parameter C8, the parameter C9 will not be considered

(7) if at the moment of the defrost activation the cabinet temperature is below the value "working setpoint + r0" , the instrument will not show temperatures above that value; if at the moment of the defrost activation the cabinet temperature is above the value "working setpoint + r0" , the instrument will not show the increases of the temperature (if the increase takes place below the value "working setpoint + r0" , look at the previous case); the instrument restores the normal operation once the defrost ends and the cabinet temperature falls below the freeze temperature.

FK 207Y

ON-OFF digital controller for static refrigerating units (with compressor protection)

smartguide

Version 1.02 of 14th June 2004

File fk207y_eng_v1.02.pdf

PT

EVCO S.r.l.

Via Mezzaterra 6, 32036 Sedico Belluno ITALY

Phone 0039-0437-852468 ▪ Fax 0039-0437-83648

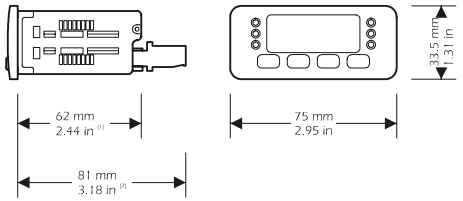
info@evco.it ▪ www.evco.it

ENGLISH

1 PREPARATIONS

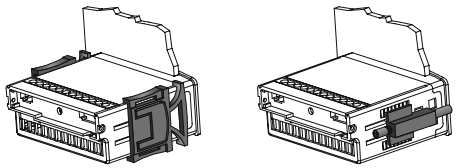
1.1 How to install the instrument

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).



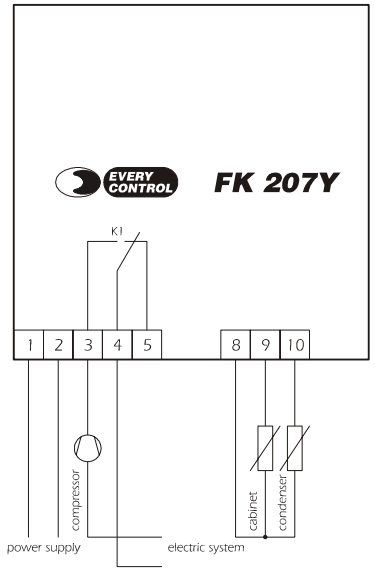
(1) maximum depth with screw terminal blocks

(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



2 OPERATION

2.1 Preliminary information

During the normal operation the instrument shows the cabinet temperature.

2.2 How to silence the buzzer (optional)

If you have to silence the buzzer:

▪ press (↓)

2.3 How to activate the defrost by hand

If you have to activate the defrost by hand:

▪ press (❄) for 4 s

2.4 How to show the condenser temperature

If you have to show the condenser temperature:

▪ press (↓)

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**
- press (set) and (▲) or (▼) for setting "**-19**"
- press (▲) and (▼) for 4 s: the instrument will show **r1**

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
❄	Compressor LED if it is lighted, the compressor will be ON if it flashes, a compressor delay will be running (look at the parameter C2)
❄	Defrost LED if it is lighted, the defrost will be running

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 compressor will be forced OFF
E0 cabinet probe alarm	▪ the kind of cabinet probe you have connected is not right ▪ the cabinet probe plays up ▪ the connection instrument-cabinet probe is wrong ▪ the cabinet 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 compressor will be forced OFF ▪ if the defrost is running, it will immediately end ▪ the defrost will never be activated
E1 condenser probe alarm	▪ the kind of condenser probe you have connected is not right ▪ the condenser probe plays up ▪ the connection instrument-condenser probe is wrong ▪ the condenser 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)	no effect
COH condenser overheat alarm	the condenser temperature is outside the limit you have set with the parameter C7	▪ test the temperature close to the probe (look at the parameter C7) ▪ clean the condenser	no effect
CSd compressor shut-down alarm	the condenser temperature is outside the limit you have set with the parameter C8	▪ turn the refrigerator OFF ▪ test the temperature close to the probe (look at the parameter C8) ▪ clean the condenser ▪ switch off the power supply of the instrument	the compressor will be forced OFF

The instrument shows the indications above alternated with the cabinet temp., except the indications "**E2**" and "**E0**" (they flash) and the buzzer utters an intermittent beep.

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, inputs 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, inputs 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, 1.5 VA (standard model) or 115 Vac, 50/60 Hz, 1.5 VA (by request).

Alarm buzzer: optional.

Measure inputs: 2 (cabinet and condenser probe) for PTC probes.

Working range: from -50 to 150 °C (-58 to 302 °F).

Setpoint range: from -99 to 99 °C.

Resolution: 1 °C.

Display: one red LED 3-digit display 13.2 mm (0.51 in) high, output status indicator, defrost status indicator.

Outputs: one 10 A @ 250 Vac relay for one ½ HP @ 230 Vac compressor control (change-over contact).

Kind of defrost: stopping the compressor.

Defrost control: defrost interval and defrost length (automatic and by hand).