

EVK203

Every digital thermostat for low temperature refrigeration applications.

Defrost and fan management.

Display protection: IP 65

Power supply: 230 VAC, 3 VA

Working temperature: 0°C to 55°C

Working range: (PTC)-50 to 150, (NTC) -40 to 110

Relays output: K1=16A (4A ind.) @240 VAC

K2 and K3 = 8 A resistive @240 VAC

The maximum current allowed on the load is 10 A

Programming procedure

Temperature Set Point

Press **"set"** button once, * will flash
 Press **▼** or **▲** to set the desired value
 Press **"set"** button to confirm

Alternatively the Temperature Set Point can be selected using parameter "SP", first on the list

All parameters

Press **▼** And **▲** for 4 seconds
"PA" will be displayed
 Press **"set"**
 Press **▼** Or **▲** to select password **"-19"**
 Press **"set"**
"PA" will be displayed
 Press **▼** And **▲** for 4 seconds
"SP" will be displayed (first parameter on the list)
 Press **▼** Or **▲** to select the parameter

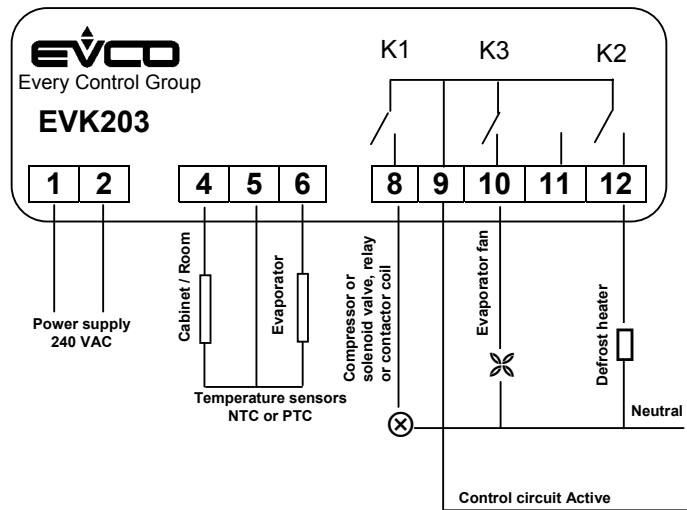
To modify selected parameter

Press **"set"**
 Press **▼** Or **▲** to set the desired value
 Press **"set"** to confirm

To confirm all changes

Press **▼** And **▲** for 4 seconds or leave the controller untouched for approx. 1 min.

Switch the power supply **"OFF/ON"** after the modification of the parameters



Manual defrost can be activated by pressing **▲** Button for 4 seconds.
 Possible only if evaporator temperature is below parameter "d2"

	LED ON	LED Flashes
	compressor is running	compressor delay "C0", "C1", "C2" or modification of the Set Point
	defrost in progress	defrost delay or dripping time "C0", "C1", "C2", "d7"
	evaporator fan runs	dripping time delay "F3"

To lock or unlock the display

Loc	To lock: press "set" and ▼ for 2 s, or by parameter "r3"
UnL	To unlock: press "set" and ▼ for 2 s, or by parameter "r3"

Error messages

CODE	REASON	REMEDIES	EFFECTS
AL	Low temperature alarm	Check "A0", "A1", "A2"	No effects
AH	High temperature alarm	Check "A4", "A5"	No effects
Pr1	Room / cabinet sensor damaged, poor connection, wrong type of sensor, the cabinet temperature is outside the limits allowed by the working range of the controller	Check parameter "P0" , check the connection, check the temperature next to the sensor	The compressor will work in accordance with parameters C4 & C5
Pr2	Evaporator / defrost sensor damaged, poor connection, wrong type of sensor, the evaporator temperature is outside the limits allowed by the working range of the controller	Check parameter "P0" , check the connection, check the temperature next to the sensor	If "P3"=1 the defrost will last as per "d3" If "P3"=1 and "d8"=2, controller will work as if "d8"=0 If "F0"=3 or 4, controller will work as if "F0"=2

Refrigeration Distributors P/L

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EVK 203T parameters

	Min.	Max.	unit	def	
SP	r 1	r 2	↑C	0.0	Temperature Set Point
CA1	-25.0	25.0	°C	0.0	Room/cabinet sensor calibration
CA2	-25.0	25.0	°C	0.0	Evaporator/defrost sensor calibration
P0	0	1		1	Type of sensor 0 = PTC, 1 = NTC
P1	0	1		1	Decimal point 1 = Yes
P2	0	1		0	0 = ↑C 1 = ↑F
P3	0	2		1	Evaporator sensor function: 0 = none 1 = defrost & fan management 2 = fan thermostat
P5	0	3		0	Display temperature: 0 = cabinet temp. 1 = Set Point 2 = evaporator temp. 3 = Set point-evaporator temp
r0	0.1	15	↑C	2.0	Differential
r 1	-99.0	r 2	°C	-50	Minimum set point
r 2	r 1	99.0	°C	50	Maximum set point
r3	0	1		0	Locking controller status 1 = Yes
C0	0	240	min	0	Delay on power up
C1	0	240	min	5	Minimum time between two compressors starts
C2	0	240	min	3	Minimum time compressor remains OFF
C3	0	240	s	0	Minimum time compressor remains ON
C4	0	240	min	10	Time compressor remains OFF in the event of cabinet/room sensor failure
C5	1	240	min	10	Time compressor remains ON in the event of cabinet/room sensor failure
d0	0	99	h	8	Defrost interval (0 = defrost disabled)
d1	0	1		0	0 = electric, 1 = hot gas defrost
d2	-55.0	99.0	°C	2.0	Defrost termination temperature
d3	0	99	min	30	Maximum defrost duration if P3 = 1 Defrost duration if P3 = 0 or 2
d4	0	1		0	Defrost activation on power up (1 = YES)

	Min.	Max.	unit	def	
d 5	0	99	min	0	Defrost delay after power up (if d4 = 1)
d 6	0	1		1	Override display during defrost (1 = YES)
d 7	0	15	min	2	Dripping time
d8	0	2		0	Kind of defrost interval, the defrost will be activated when: 0 = controller will stay ON for the time=d0 1 = compressor will stay ON for the time=d0 2 = the evaporator temp will stay below d9 for the time=d0
d 9	-99	99	↑C	0	Evaporator temp. above which the count of the defrost interval is suspended (only if d8=2)
d A	0	99	min	0	Minimum compressor run before hot gas defrost activation (d1=1)
A0	0	1	°C	0	0 = room temp. alarm, 1 = evaporator temp. alarm
A1	-99	99	↑C	-10	Temp. below which the low temp alarm is activated
A2	0	2		1	Low temp, alarm: 0 = alarm disabled 1 = deviation from Set Point 2 = absolute (A1)
A4	-99	99	°C	10	Temp. above which the high temp alarm is activated
A5	0	2		1	High temp, alarm: 0 = alarm disabled 1 = deviation from Set Point 2 = absolute (A4)
A6	0	240	min	120	Delay of alarm activation after power up
A7	0	240	min	15	Temperature alarm delay
A8	0	240	min	15	Delay of alarm after the last completion of defrost cycle
F0	0	4		1	Fan management (0 = OFF, 1 = ON, 2 = with compressor, 3 = according to F1, 4 = with compressor according to F1)
F1	-99	99	°C	-1	Evaporator fan stop temperature
F2	0	2		0	Stop fan during defrost (0 = Yes, 1 = No 2 = according to F0)
F3	0	15	min	2	After dripping evaporator fan delay
L1	1	247		247	Controller ID address
Lb	0	3		2	Network baud rate: 0=2400, 1=4800, 2=9600, 3=19200
LP	0	2		2	Parity: 0= none, 1 = odd, 2 = even
E9	0	1		1	Reserved

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