# **Electronic thermostat**

G-207-P00





## **APLICATION**

G-207-P00 controller can be applied for cold rooms and refrigeration cabinets operating with two compressors and working both in high and low temperatures.

The controller stabilizes temperature and control automatic defrosting.

I case of refrigerator application, cold rooms or freezers it is possible to connect a door open sensor which is responsible for controling compressor, fan and light depending on time of the door oening.

It is manufactured also with light switch working independently from tha main ON/OFF switch.

## **PROPERTIES**

- ON/OFF switch built in.
- The control panel working under safe 5V voltage.
- Hermetic casing.
- 230V power supply of executive module (transformer built-in)
- Possibility to supply power to second compressor from the second phase.
- Built-in fuse on the power supply and switching bar (patch panel).
- 5 relays working under 230V voltage (two relays 30Å for two compressors).
- Two temperature sensors and door open sensor (optical or magnetical).
- Automatic defrosting of evaporator.
- It signals the stage of work of the compressor and defrosting process.
- Signalling of damage in circuits of sensors and emergency work.
- Chance to programm and monitor (HACCP) behind the means of the computer and special key.

#### **TECHNICAL DATA**

OUTPUT	RELAY	Recommended constant carrying capacity		
P1 – Compressor	30A	8A	1500W	2HP
P2 – Light	16A	4A	750W	-
P3 – Fan	16A	4A	750W	1HP
P4 – Heater	16A	4A	750W	-
P5 – Compressor	30A	8A	1500W	2HP

Operating Voltage	~230V AC +10% / -15%
Environment Temp.	From +5°C to +45°C
Humidity	From 20% to 80% RH
Protection Level	Ip65 Front side on the control panel
Sensors type	NTC - range: from -40°C to +60°C

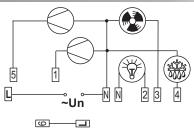
Input	Sensor	
P-P	Evaporator temp.	
K-K	Coold room temp.	
D-D (Y)	Optionally magnetic door open sensor (optical)	

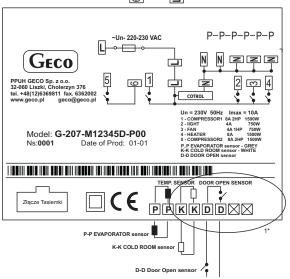
P..P.U.H. "GECO" Sp. z o.o. Cholerzyn 376 32-060 Liszki, Polska Tel. +48 (12) 636 98 11, 636 12 90, +48 (602) PPGECO

Fax. +48 (12) 636 20 02 e-mail: geco@geco.pl,

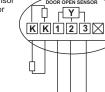
http://www.geco.pl

## **SCHEME OF CONNECTIONS**





1\* - wersion with magnetic door open sensor 2\* - wersion with optical door open sensor



#### Model: G-207-M12345Y-P00

Door sensor: 1 - OUT - black; 2 - GND - white; 3 - +12V - red;

# **LABELING METHOD**

Optical door open sensor

#### Model Label: G-207-P00Kxx Mxxxxx x L - light button, 0 - without button B - sound signal, 0 - without sound

- 1 compressor 1 relay
- 2 light relay, 0 without light relay
- 3 fan relay, 0 without fan relay
- 4 heater/valve relay, 0 without relay
- 5 compressor 2 relay, 0 without relay

door open sensor: D - magnetic, Y - optical, 0 - without sensor;

## **SET CONTENT**

#### Thermostat:

- control panel
- executive module
- Ttape connection the control panel with the executive
- Two (of ordered length) temperature sensors

- Optionally:

  Optical door open sensor
- Magnetic door open sensor

## **DESCRIPTION**

#### **User Parameters** Para-Description meter Temperature setting, up j, down P

Service	ce Parameters
Para- meter	Description
c0	How often should defrosting be started 00 only manual defrosting (no automatic deftosting) -01 without defrosting
c1	Maksimum defrosting time, -01 no time limitation
c2	Minimum standstill of the compressor
сЗ	Czas ociekania parownika
c4	Time of freezing out of the evaporator, after which fans are started whether the evaporator reaches the preset temperature set by 'd5' or not
c5	Maksimum operation time of the compressor 0 means no test (disabling this parameter)
c6	Standstill of the compressor after safety system trip set by 'c5'
с7	The time of dislaying the temperature measured before defrosting after it is ended
с8	Compressor operation time with faulty control sensor
с9	Compressor standstill time with faulty control sensor
d0	Minimum set temperature
d1	Maksimum set temperature
d2	Evaporator temperature at which defrosting will be started
d3	Hysteresis value
d4	Rescaling calue of the chamber sensor in relation to accualy measured temperature
d5	Evaporator temperature above which the fans begin operation after finishing the defrosting process
d6	Evaporator temperature above which the fan is alwaysturned off - this parameter is not working during defrosting. Setting the parameter for +40 turns off this control.
r0	Method of fan operation during defrosing.
r1	Specyfing the evaporator defrosting method
r2	Specyfing the evaporator fan operating mode
r3	Specyfing the temperature controll mode: 00 Normal control operation 01 according to evaporator sensor measurement
r5	Defrosting start condition after turning device on
r6	Door open option
r7	Turning on the lightning method
r8	Time from door opening to alarm activation

Area where the door sensor should be hooked up