Electronic thermostat G-204-P00

APLICATION

G204-P00 is designed for installation mainly in the control boxes, therefore it is suitable for cold rooms and refrigeration rooms.

Into the G204P00 it is possible to connect a door open sensor, which fully controls the compressor, the heater and the light depending on the time of the door opening.

For low, medium and high power cold rooms the device allows connection of all controlled appliances: the compressor, the heater, the fan and light, straight into the controller without need to connect additional contactors. It is possible thanks to 16A and 30A relays.

It is manufactured in simplified versions that have lower number of outputs and in version with three temperature sensors.

As a supplement for G204-P00 there was brought into

PROPERTIES

- ON/OFF switch built in.
- 230V network power supply of the executive module.
- Four outputs of relays operating under 230V voltage.
- Two or three temperature sensors and door open sensor.
- Programmed control of the compressor, the light and the fan by the door open sensor.
- Automatic defrosting of the evaporator.
- Buttons for direct control of the light and defrosting.
- It signals the stage of work of the compressor and whole process of the defrosting.
- Signaling (sound and optical) of damage in circuits of sensors and emergency work.
- Chance to monitor the state of work of the thermostat behind means of the computer.
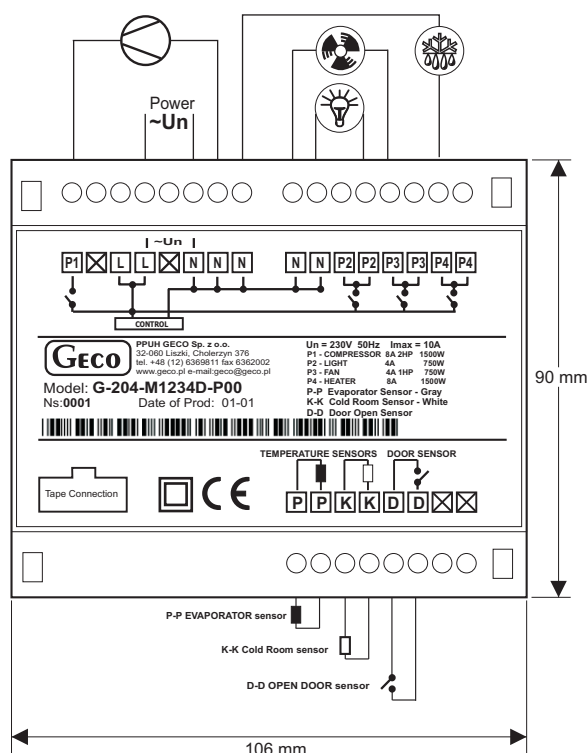
TECHNICAL DATA

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/Valve	16A	8A	1500W	-

Operating Voltage	~230V AC +10% / -15%	Door open sensors manufactured by GECO
Enviroinment Temperature	From +5°C to +45°C	
Humidity	From 20% to 80% RH	Optical: CZ-PO-SZ-2.0m
Protection Level	IP65 Front side of the control panel	Magnetic: CTC-2.0m
Sensors type	T1: NTC - range: from -40°C to +60°C	
	T2: NTC - range: from -40°C to +60°C	Any other O/I sensor

SCHEME OF CONNECTIONS

Power
~Un

~Un

P1 ⊠ L L ⊠ N N N   N N P2 P2 P3 P3 P4 P4

CONTROL

Geco PPUH GECO Sp. z o.o.
32-060 Liszki, Cholerzyn 376
tel. +48 (12) 6369811 fax 6362002
www.geco.pl e-mail:geco@geco.pl

Model: **G-204-M1234D-P00**
Ns:**0001**   Date of Prod: 01-01

Un = 230V 50Hz   Imax = 10A
P1 - COMPRESSOR 8A 2HP 1500W
P2 - LIGHT   4A   750W
P3 - FAN   4A 1HP 750W
P4 - HEATER   8A   1500W
P-P Evaporator Sensor - Gray
K-K Cold Room Sensor - White
D-D Door Open Sensor

Tape Connection

CE

TEMPERATURE SENSORS   DOOR SENSOR

P P K K D D ⊠ ⊠

90 mm

P-P EVAPORATOR sensor

K-K Cold Room sensor

D-D OPEN DOOR sensor

106 mm

LABELING METHOD

Model label: **G-204-P00Kxx M1xxx x**

Light button:
L - available; 0 - no button

Sound:
B- available; 0- no sound

Light relay:
2- available; 0 - no relay

Fan relay:
3- available; 0 - no relay

Heater relay:
4- available; 0 - no relay

Digital Input:
D- available connection to short-circuit sensor
Y- available connection to optical sensor
0 - no connection

SET CONTENT

Thermostat:
● Two, of ordered length, temperature sensors

Additionally it is possible to order open door
sensors, which operate without contact:

● Magnetic sensor
● Optical sensor

DESCRIPTION

G204-P00 is the universal controller for cooling devices that operate in various ranges of temperatures.

G204-P00 uses the compressor to control the temperature in the cold room. The compressor control includes protections against too frequent turning on and off.

In defined periods of time device enters automatic defrosting of the evaporator mode. Defrosting has a various run depending on settings of the controller for instance: the drip phase starts after the defrosting phase and the subquenching phase starts after the drip phase.

G204-P00 has the button to turn defrosting on. This button can be used during difficult conditions of the device operation.
Manual and automatic defrosting both have the same run.

The controller has the cut-off switch. After the device is turned off the compressor, the heater, and the fan are turned off too.
The button and light relays work independently from the cut-off switch.

The door opening turns the light on, turns the fan off and after one minute turns the compressor off. The door opening is signaled with a sound every 30 seconds. Too long door opening is alarmed.
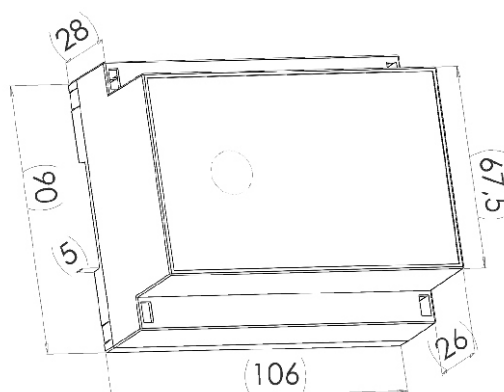
User sets the temperature in the cold room.

G204-P00 displays the temperature measured with the cold room sensor. User can turn on the temporary view of the temperature on the evaporator sensor.

In case of the sensor failure the controller displays alarm code and operates using the emergency mode.

The controller has service internal parameters that describe its methods of work. These parameters can be programmed by choosing specific mode in the controller.

CASE DIMENSIONS

28

90

5

67,5

106

26