Geco®

COOLING
HEATING

Electronic thermostat   GC201

APLICATION

GC201 is designed to control of simple cooling devices working both in low and high ranges of the temperature. It is a replacement for: G-201-P00, G-201-P01 i G-201-P02.

For low power equipment device allows direct connection of all controlled appliances (the compressor, the heater, the fan, the light) without need to connect additional contactors. It is possible thanks to application of 30A, 16A or 8A relays (depending on version of the controller).

PROPERTIES

- ON/OFF switch built in.
- Network power supply and outputs operating under 230V voltage.
- Controller is equipped with sound signal
- The controller's keyboard with touch buttons
- Possibility to work with 1 or 2 temperature sensors: NTC 2,2kΩ
- Buttons for automatic control of light and defrosting.
- SuperFrost function
- It signals the stage of work of the compressor and whole process of the defrosting.
- Two outputs of relays (16A and 8A) or single one but of a high power (30A relay).
- Programmable choice for second device (the heater, the fan, the light, the valve)
- Automatic defrosting of the evaporator.
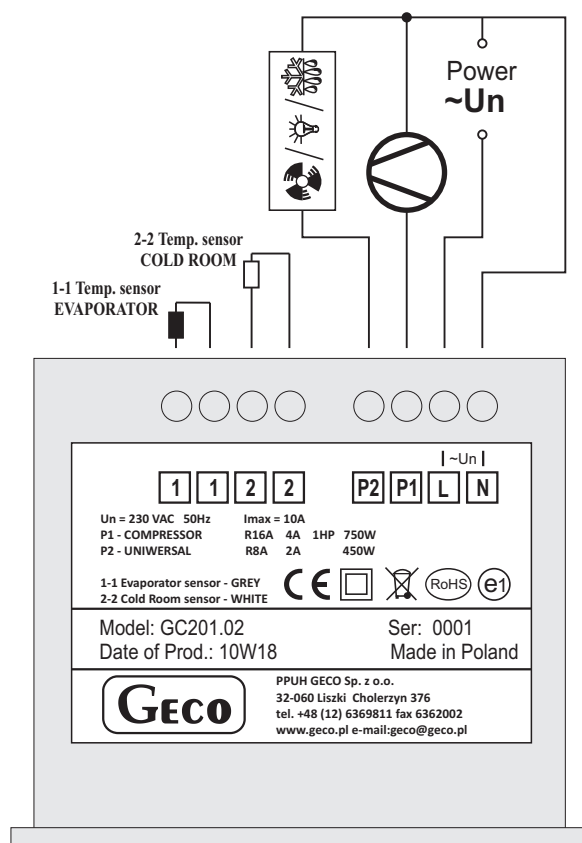- Signaling (sound and optical) of damage in circuits of sensors and emergency work.

TECHNICAL DATA

OUTPUT	RELAY	Recommended constant carrying capacity		
P1 – Compressor	16A or 30A	4A (8A)*	750W (1500W)*	1HP (2HP)*
P2 – Universal	8A	2A	450W	-

* - refers to a version with the high power relay

Operating Voltage	~230V AC +10% / -15%
Enviroinment Temperature	From +5℃ to +40℃
Humidity	From 20% to 80% RH
Protection Level	IP65 Front side of the control panel
Sensors type	T1: NTC - range: from -40°C to +60°C T2: NTC - range: from -40°C to +60°C

SCHEME OF CONNECTIONS

Power **~Un**

2-2 Temp. sensor
COLD ROOM

1-1 Temp. sensor
EVAPORATOR

| 1 | 1 | 2 | 2 | | P2 | P1 | L | N |

|~Un|

Un = 230 VAC 50Hz   Imax = 10A
P1 - COMPRESSOR   R16A 4A 1HP 750W
P2 - UNIWERSAL   R8A 2A   450W

1-1 Evaporator sensor - GREY
2-2 Cold Room sensor - WHITE

CE   RoHS   e1

Model: GC201.02   Ser: 0001
Date of Prod.: 10W18   Made in Poland

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

LABELING METHOD

Model Label: **GC201.0X**

where **0X** stands for the driver version:

01 - 2-relay controller with the option of configuration equipment connected to the other relay: **compressor / fan or heater.** Controller's keypad keyboard without a light button.

02 - 2-relay controller with the option of configuration equipment connected to the other relay: **light/ fan / heater or valve.** Version dedicated for users who want to use second relay to control the light. Controller's panel keyboard with a light button.

03 - 1-relay controller controlling hight power compressor. Controller's keypad keyboard without a light button.

04 - 1-relay controller controlling compressor with standard 16A relay. Controller's panel without light button.

SET CONTENT

- Thermostat
- Additionally you need to order two, of ordered length, temperature sensors (typically: 2,5m or 3,0m long).

DESCRIPTION

GC201 is the controller for cooling devices working in various ranges of temperatures.

Controller is equipped with ON / OFF function activated by holding ON/OFF button for 5 second. After turning off the compressor, the heaters and lights are turned off.

If the controller has a light function, it works independently of the off button.

GC201 uses the compressor to stabilize 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 the mode of automatic defrosting of the evaporator. Depending on the second relay function defrosting has a various run for instance: using the heater or the valve, the drip phase starts after the defrosting phase.

GC201 has a button for turning interchangeably SuperFrost function (if this function is curently active) or Defrosting (if SuperFrost function is not active). Enabling or disabling the SF function is available in the system settings.

Defrosting button (if SuperFrost function is not active) can be used during difficult conditions of device operation.

Manual and automatic defrosting are the same.

User sets temperature in the cold room.

The controller displays temperature measured with the cold room sensor. User can turn on temporary view of the temperature measured with the evaporator when this sensor is operated by controller.

The evaporator sensor can be blocked in the service parameters and the controller will supports only the chamber sensor.

In the event of exceeding the temperature programmed by the manufacturer in the chamber, an alarm is given.

In case of the cold room sensor failure the controller displays alarm code and controls compressor using a clock mode.

In case of the evaporator sensor (if it is operated by the controller) failure the controller displays alarm code and it does not permit to enter automatic or manual defrosting mode. If the evaporator sensor is blocked in the service parameters, defrosting is carried out temporarily.

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