

Electronic thermostat / Pressure control of the condenser **G-204-P09**



APPLICATION

G-204-P09 is designed to control of fans of the condenser or of the evaporator in dependence from the temperature or the pressure.

G-204-P09 is additionally equipped with: the function of the oil thermostat, protection against the compressor head (refrigerating compressor) overheating and alarm output.

There are various applications possible - from one to four fans. One of the outputs has adjustable voltage.

The controller settings are accessible only for service.

G-204-P09 is equipped with three temperature sensors and there is also a chance to connect the freon pressure sensor. Four outputs make the direct connection of devices working under 230V voltage possible.

PROPERTIES

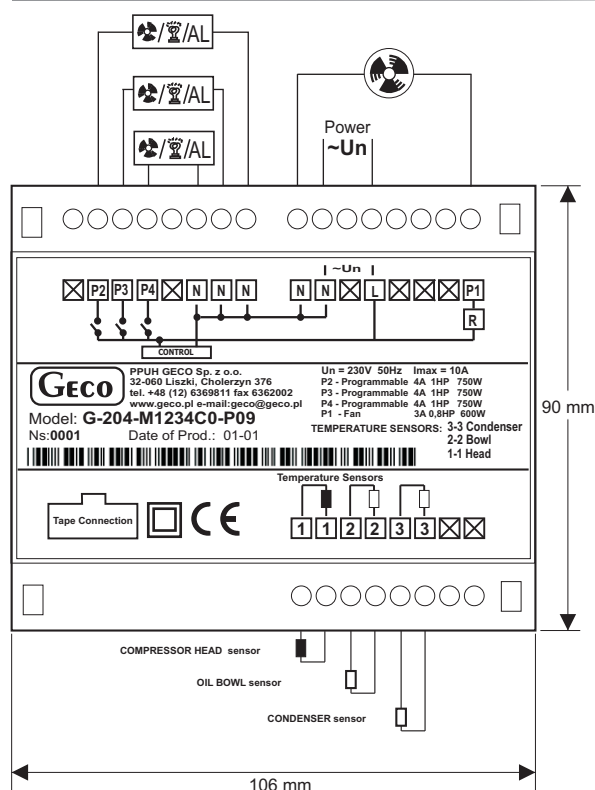
- One-piece design, case ready to assembly on the DIN rail.
- Control of fans based on the temperature or pressure measurements.
- Regulation of the blow-in over the evaporator or the condenser.
- Three relay outputs with programmable function.
- One output with smooth adjustment of the fan rotations.
- Controls the cascade of up to three fans.
- Additionnal functions: the oil thermostat, the compressor head overheating protection and alarm output.
- Signaling of work of every device.
- ON/OFF switch built in - network power supply 230V (transformer built in).
- Signaling (sound and optical) of damage in circuits of sensors and emergency work.
- The function of operation time equalization of installed fans.

TECHNICAL DATA

| OUTPUT | RELAY | Recommended constant carrying capacity | | |
|-------------------|-------|--|-------|-----|
| P1 – Fan | 16A | 3A | 600W | - |
| P2 – Programmable | 16A | 4A | 750W | 1HP |
| P3 – Programmable | 16A | 4A | 750W | 1HP |
| P4 – Programmable | 16A | 8A | 1500W | 1HP |

| | |
|-------------------------|---|
| Operating Voltage | ~230V AC +10% / -15% |
| Enviornment Temperature | From +5°C to +45°C |
| Humidity | From 20% to 80% RH |
| Protection Level | IP65 Front side of the control panel |
| Sensors type | NTC - range: from -40°C to +99°C Pressure sensor - current 4mA - 20 mA |

SCHEME OF CONNECTIONS



LABELING METHOD

Model label: **G-204-P09K0X- M XXX4 x0**

Sound signal:
B- available, 0 - no sound

P2 relay:
1- available; 0 - no relay

P3 relay:
2- available; 0 - no relay

P4 relay:
3- available; 0 - no relay

Method of fans control:
0- temperature; P- pressure

SET CONTENT

- Thermostat:
- Three temperature sensors of ordered length.

Additionally it is possible to order pressure sensor.

DESCRIPTION

G-204-P09 has three temperature sensors:

- the evaporator sensor for fans control
- the oil bowl sensor for oil heating
- the compressor head sensor to alarm about overheating.

The controller has programmable functions of relays. Each of three relays can control:

- the fan
- the heater
- the buzzer

The triac system controls only the fan.

G204-P09 displays the temperature over the condenser or displays the pressure.

Outputs states are signaled by diodes.

G204-P09 controls minimally one and maximally four fans, where one has adjustable rotations.

During condenser cooling, the controller switches on following fans due to the temperature/the pressure increase. During blowing over the evaporator, the controller switches on following fans while the temperature/the pressure decreases.

G204-P09 stabilizes oil temperature using control over the heater.

When the temperature exceeds on the head sensor, the controller signals alarm switches buzzer on and displays information on the monitor.

The controller has the cut-off switch. The turned off controller has all outputs turned off too.

All settings of the controller are accessible only for service. Every parameter can be blocked during the controller production in a way that no one could change them causing incorrect operation of the device. Change or control of parameters is possible after turning the controller into the special mode.

CASE DIMENSIONS

