Gas Flow Monitor

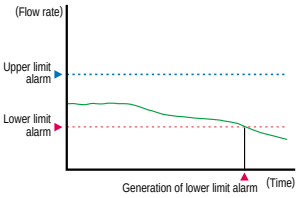
CMG Series

High-accuracy, high-speed response measurement

The CMG series equipped with Yamatake's Micro Flow (μF) sensor realizes a compact body and high accuracy of ±4%RD. It also eliminates the need for correction of measured values generally affected by changes in temperature and pressure, due to its method of mass flow measurement.

Easy gas flow measurement and management

The CMG series' digital indication of instantaneous / integrated flow rate is visible from a distance, and its measurement status can be indicated by Hi, Lo, OVER, ALARM LEDs.



Other functions, for example, setting the upper limit and lower limit alarms, and using contact and analog signals as external outputs, are effective for flow management, such as monitoring quantity of fuel used.

Most suitable for burner applications

Because of its structure to minimize pressure loss, the CMG series is the most suitable for burner applications that are sensitive to pressure loss.

Free directions for mounting and indication in any direction

Unlike conventional controllers, the CMG series does not require straight piping at upstream and downstream sides.*

Indication direction can also be changed, allowing easy mounting in any direction.(* Refer to Precautions item 5)

Compact body with IP54 protective structure

With a compact mask of 83.9X83.9mm and protective structure of IP54(JIS C 0920), the CMG series can be installed without restrictions.

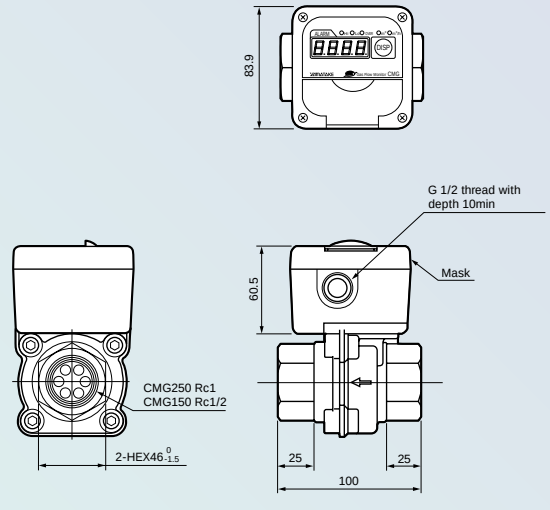
Self-diagnosis function

The self-diagnosis function is effective for troubleshooting.

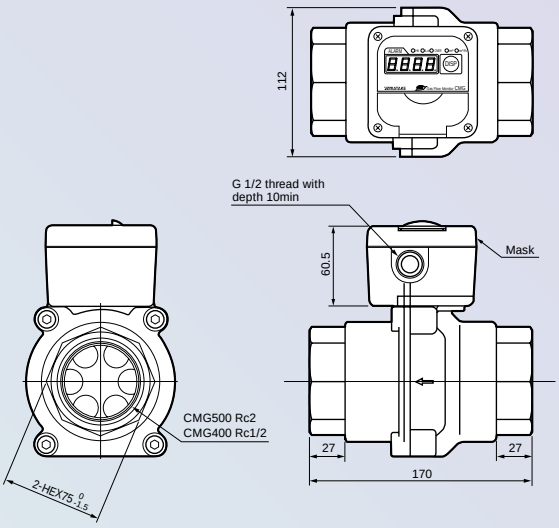
Dimensions

(unit:mm)

CMG150/250



CMG401



Precautions

1. Install this unit at the upstream side of safety shutoff valve in the gas flow piping line. Explosive gases mixed with air should not enter the piping, as a lighting discharge causes sparks to ignite and an explosion might occur. In case of applied excessive voltage or a power short-circuit, the unit is protected by an internal safety circuit and fuse.
2. This unit is designed for gas and air as indicated by model number. Do not use for any other gases. If this unit is used for a gas of which ignition temperature is lower than that of the indicated gas, and if an explosive gas mixed with air enters the piping, an explosion might occur due to the build-in heater in the sensor.
3. The use of a strainer is required in the gas flow line on the upstream side of this unit to prevent rust occurring or foreign matter entering. If a foreign matter enters the piping, an operation failure might occur.
4. If this unit is used outdoors, protection from direct sunlight and rain is needed.
5. The CMG250 (30m^3/h(normal) type) and CMG400/500 series have a larger hole in the main flow orifice to enable larger flow. Therefore, if there is no straight piping area, the flow rate in the bypass becomes unstable, resulting in a decline of accuracy of 8 to 10%. In order to maintain 4% accuracy, the inlet side straight pipe length must be 15cm or longer for the CMG250 (30m^3/h(normal) type) and 10cm or longer for the CMG400/500 series.