

# Flowmeter monitoring device born from the needs of the medical workplace

### Overview

Oxygen flowmeters are widely used in medical settings, including respiratory therapy, and in life-support devices such as heart-lung machines for serious cases. Currently, medical professionals monitor the flow rate every few hours. When it is used for a heart-lung machine for a child, it is necessary to adjust the flow rate in small amounts every few weeks, and if the flow rate stops, the result will be fatal every minute.

The monitoring device developed in this study can monitor the flow rate change from the outside by visual display, auditory display or both display without touching the inside of the flowmeter.

#### [Practicality]

#### Notice that the cylinder is empty

The device constantly monitors that the floater is within lower to upper limit of the flow rate, and instantly notifies you when the cylinder is empty as well as when the flow rate changes.

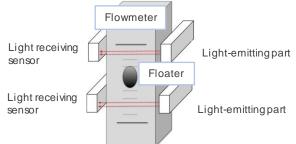
#### Malfunction prevention

By setting two pairs of light-emitting part and light receiving sensors up and down, it can be seen which sensor caught the floater first, so it can be seen whether the floater came from above or below. If it is judged that the floater deviated from the monitoring measurement range, an alarm is activated.

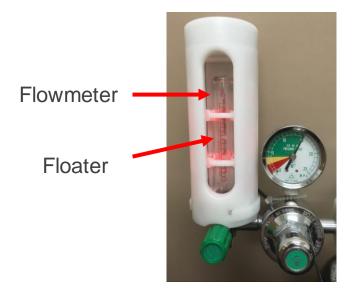
#### IP Data

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# [Measurement Principle]



The state in which the light receiving sensor receives the signal from the light emitting part is normal.
If the sensor does not received the signal from the light emitting part due to the fluctuation of the floater, it is judged as abnormal and the alarm is activated.



#### Contact



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