

OPERATION MANUAL

GE-324A/B

**SERIES
THERMAL
FLOW SENSOR**

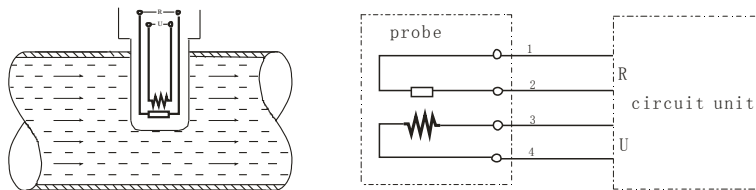
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DESCRIPTION

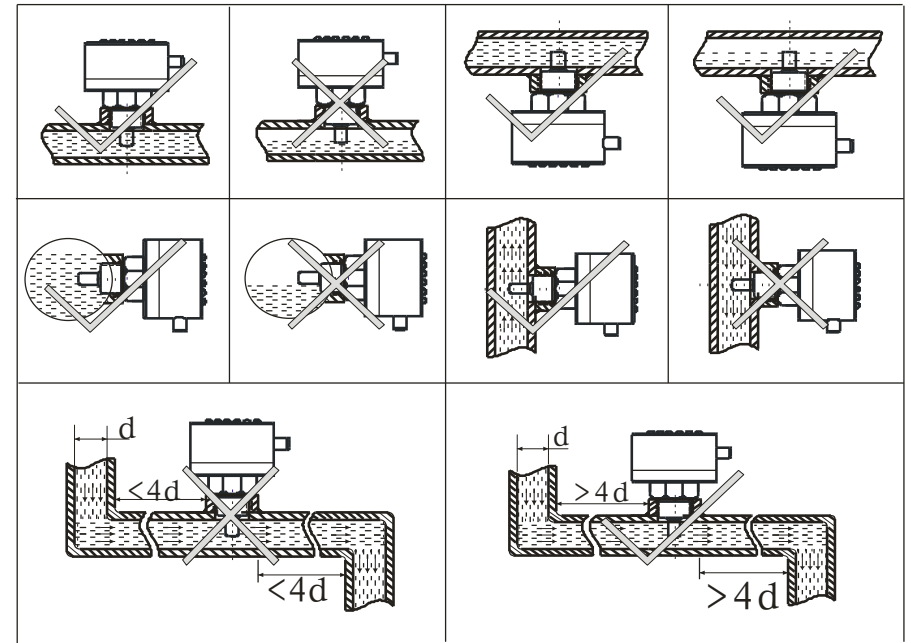
GE-324A/B series thermal flow sensor is adopts heat exchange principle design, according to the thermal diffusion size detection the size of flow. When the liquid velocity exceeds the user setting value relay action, the realization of the flow detection and control. Can be widely used in petroleum , chemical , electric power , water treatment , metallurgy metallurgy , paper making , shipbuilding and boiler industries pipeline flow detection.

PRINCIPLE

This sensor is based on the theory of heat exchange .Heat and temperature measuring module is built inside the probe. The speed of heat exchange is closely related to the velocity of the fluid.If the fluid is motionless, the temperature measuring module will gets the fixed heat quantity from the heat module.While there's flowing through the probe, the temperature measuring module gets the heat quantity which varies with the velocity of the fluid. The circuit unit converts the differential temperature signal into electric signal. Then the signal processor exports 4-20mA current or the relay action.



FEATURES



CAUTION

- In normal statement, this product could not be in special maintenance.
- If the sensor does not work properly, please return to the supplier and do not try to open or disassemble the sensor or do any maintenance in unauthorized condition.
- Product warranty for one year due to product quality problem, maintenance lifelong.

Attachment

- Operation Manual 1
- Certificate of conformity 1

- Shut down the valve for pipeline, install the flow sensor.
- Open the flow sensor power supply, preheat for above 1 minute.
- Rotate the “SET” transmission screw, Until just the **red LED** bright.
- Rotate the valve for pipeline, waiting for above 1 minute, make sure the flow stability. Rotate the “MAX” transmission screw, Until 4 **green LED** all bright.
- Shut down the valve for pipeline or open the valve for pipeline to control the flow size below the set point, waiting for above 1 minute, the flow sensor shows only the **red LED** bright. if it can't be change to the **red LED** bright, could be counterclockwise adjust the “SET ” screw a little.
- Open the valve for pipeline, the flow sensor show for the **green LED** bright, it's setting correct, the number of **green LED** bright represent the current flow percent.
- Please repeat the above step if the **LED** shows incorrect.

Remark :

- “ SET ” setting the **red LED** on or off (relay set poin), “ MAX ” setting the number of **green LED**
- If it's not strict for your demand, you could make the “ MAX” screw clockwise adjusted to maximum (clockwise about 20 rings), then according to GE-324A series adjustment method and can be adjusted.
- “SET” and “MAX ” screw are in a clockwise direction adjustment, the number of **LED** brights will be increase. According to ounterclockwise, the number of **LED** brights will be reduce.

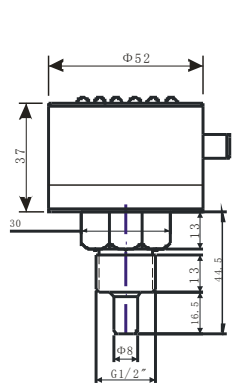
installation

- Alarm point can be adjusted continuously, directly through the drive screw adjustment
- Small volume, convenient installation, completely waterproof
- Applicable for wide range of diameters pipe
- Max pressure withstand up to 100 bar
- Set point adjustable freely
- The anti-limescale sensing probe applicable even for poor quality water
- With high accuracy & stability
- 6 LED for visual flow indication

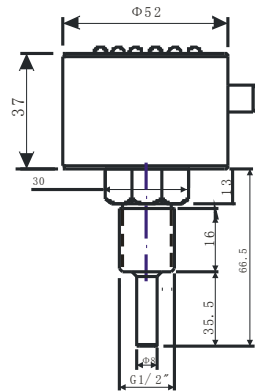
TECHNICAL DATA

- Operating range: Water: 0~5 m/s, Oil: 0~10 m/s, Air: 0~20 m/s
- Operating voltage: DC24V, AC/DC110V, AC/DC220V
- Output: Relay (1A/125VAC 2A/30VDC) or PNP or NPN
- Current consumption: ≤ 80mA
- Set mpde: Through the drive screw driving potentiometer setting
- Switch-on time: typical 2s(1-13s)
- Switch-off time: typical 2s(1-15s)
- Nitialization time: typical 8s(5-30s)
- Electrical protection: Reverse, Short-circuit, Overload protection
- Ambient temperature: -20~80℃
- Material: Sensor: ANSI316L, Body: ANSI316L
- Threaded type: G1/2 " (special type on request)
- IP Code: IP67

OUTLINE STRUCTURE



Short probe
(Less than DN100)

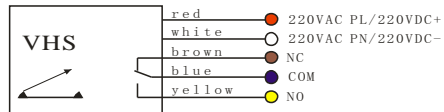


Long probe
(More than DN100)

CONNECTION



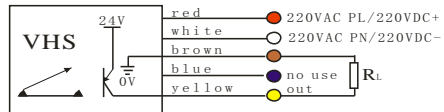
24VDC, RELAY



220VAC/DC, RELAY



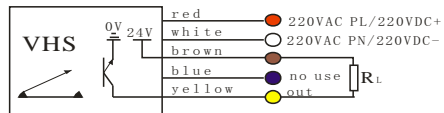
24VDC, PNP



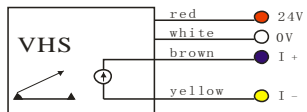
220VAC/DC, PNP



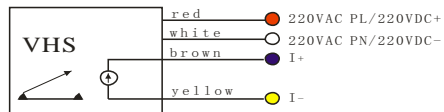
24VDC, NPN



220VAC/DC, NPN

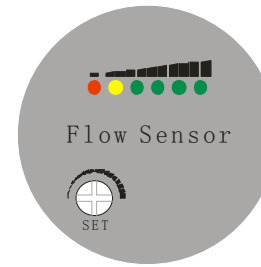


24VDC, 4-20mA

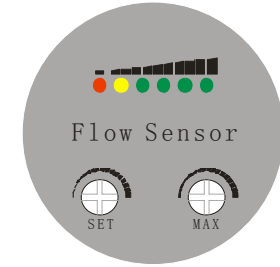


220VAC/DC, 4-20mA

Setting



GE-324A



GE-324B

- **Red LED:** lower than the set point
- **Yellow LED:** equal or higher than the set point
- **Green LED:** beyond the set point (1, 2, 3 or 4)

Regulation method for the GE-324A series

- Shut down the valve for pipeline, installed the flow sensor.
- Open the flow sensor power supply, preheat for above 1 minute.
- Rotate the transmission screw of the panel Until just the red LED bright.
- Open the valve for pipeline, adjust the set point size of the flow, waiting for above 1 minutes, make sure the flow stability.
- Rotate the transmission screw of the panel, Let the green LED bright (1, 2, 3 or 4)
- Shut down the valve for pipeline, the flow sensor shows for the red LED bright.
- Open the valve for pipeline, flow sensor shows for green LED bright, says it's right.
- Please repeat the above step if the LED shows incorrect.

Regulation method for the GE-324B series