

Non-Contact Infrared Temperature Sensor/Transmitter

IR - 20-4W

Temperature Range: 0~400°C



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1. Features

IR-20 non-contact infrared thermometer measures the infrared wavelength emitted from the target spot and converts it to standard current signal output (4~20mA). It can measure from 0 °C to maximum 400°C in the distance of 10:1 D:S (Distance to Spot)

Emissivity is 0.95 (fixed).

※Applications



Plastics, Fluids, Rubber, Coated components, Asphalt, Wood, Paper, Ceramics, Textiles, Glass, Food etc.

2. Ordering information

Code Number IR-20-4W-□-□-□

| MODEL | Description |
|--------|----------------------|
| IR-20 | |
| Code A | Temperature Range |
| 1 | 0~200 °C |
| 2 | 0~400 °C |
| Z | Other |
| Code B | Output |
| N | DC 4~20mA |
| V | Voltage Output(1~5V) |
| Z | Other |
| Code C | Cable Length |
| 1 | 3M |
| Z | Other |

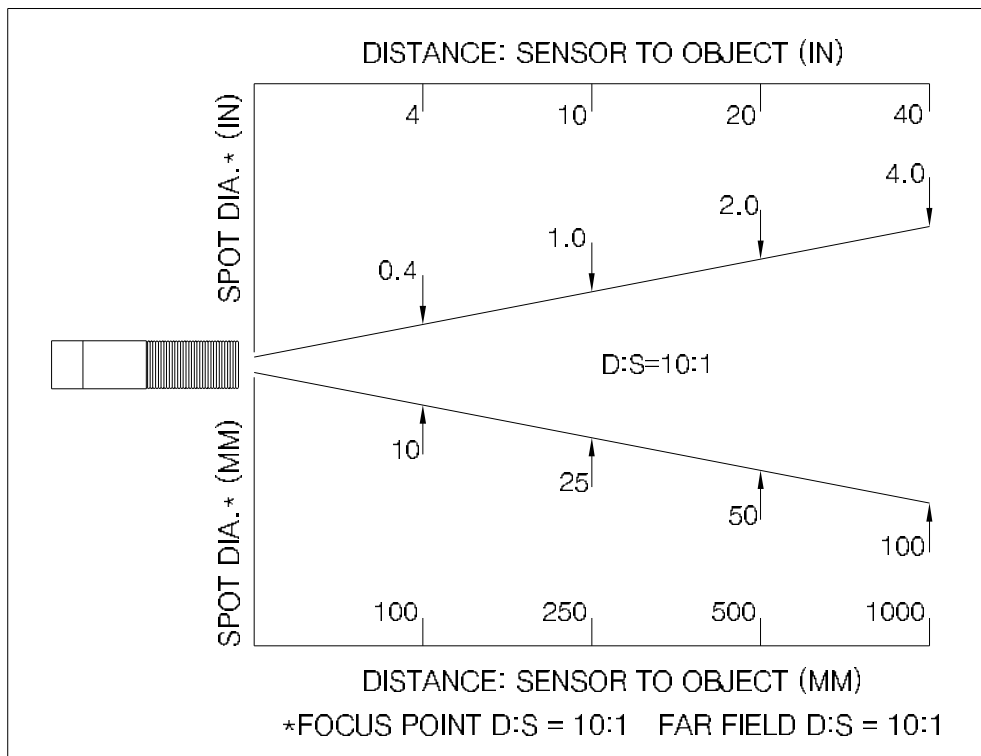
3. Accessories

| Name | Shape | Usage | Remark |
|------------------|---|-------------------------|-----------------|
| Fixing nut |  | Sensor fixing nut | Basic accessory |
| Mounting bracket |  | Sensor mounting bracket | Basic accessory |

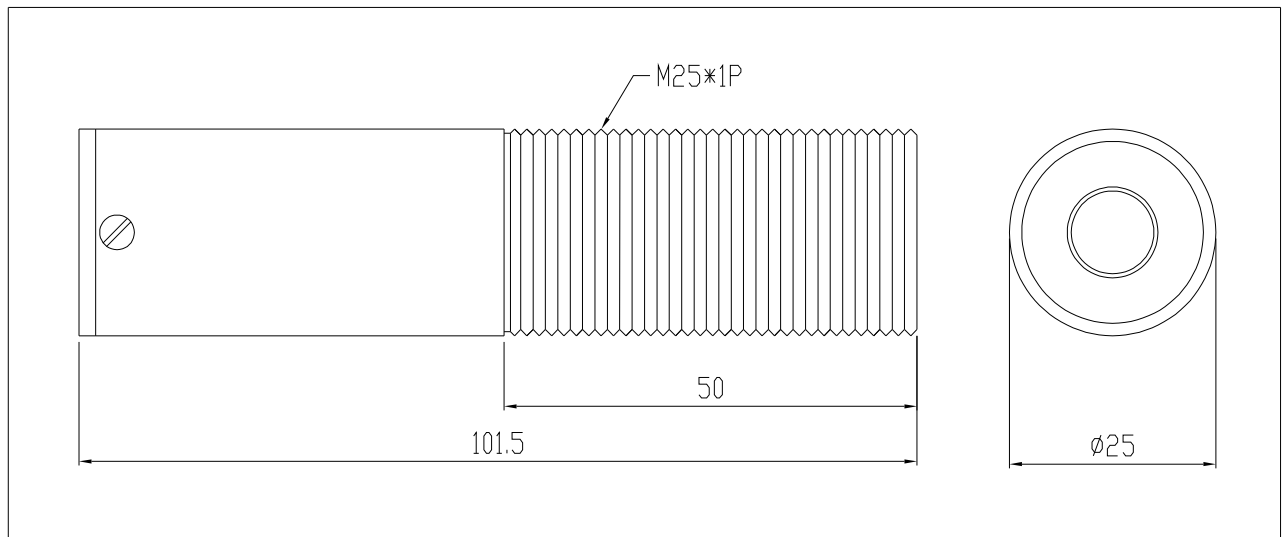
4. Specification

| Segment | Specification |
|---------------------------------------|-----------------------------|
| Measurement Range | 0~400℃ |
| Device | Thermopile |
| Accuracy | ±1% / full scale |
| Repeatability | ±1% of reading |
| Distance : Spot | 10:1 |
| Optical spectrum wave | 8~14 μ m |
| Responsive Time | 0.5 sec or below |
| Emissivity | 0.95 fixed |
| Analog Output | 4~20mA, 1~5V(option) |
| Power | DC 12~24V(Max 50mA) |
| Ambient temperature(no water cooling) | 0~70℃ |
| Temperature Resolution | 0.1℃ |
| Warm up Period | 1 to 2 minutes |
| Operating Relative Humidity | 5~90% |
| Operating Ambient Temperature | -30~85℃ |
| Waterproof | IP65,NEMA 4 |
| Dimensions | Ø36 × 110.5(L) |
| Signal Cable | 4 wire shield type |
| Housing material | Aluminum Alloy |
| Weight | 160g |
| Cable length | 3m(standard), other(option) |

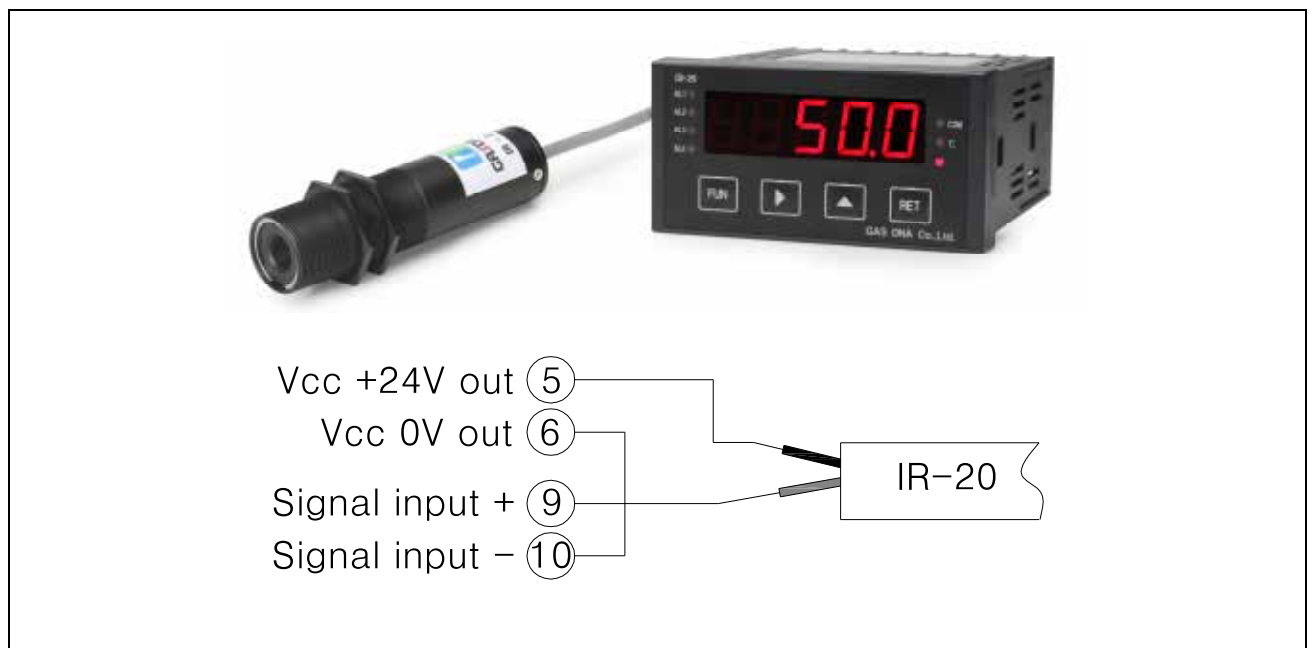
5. Optical field of view (D:S 10:1)



6. Dimension



7. Wiring



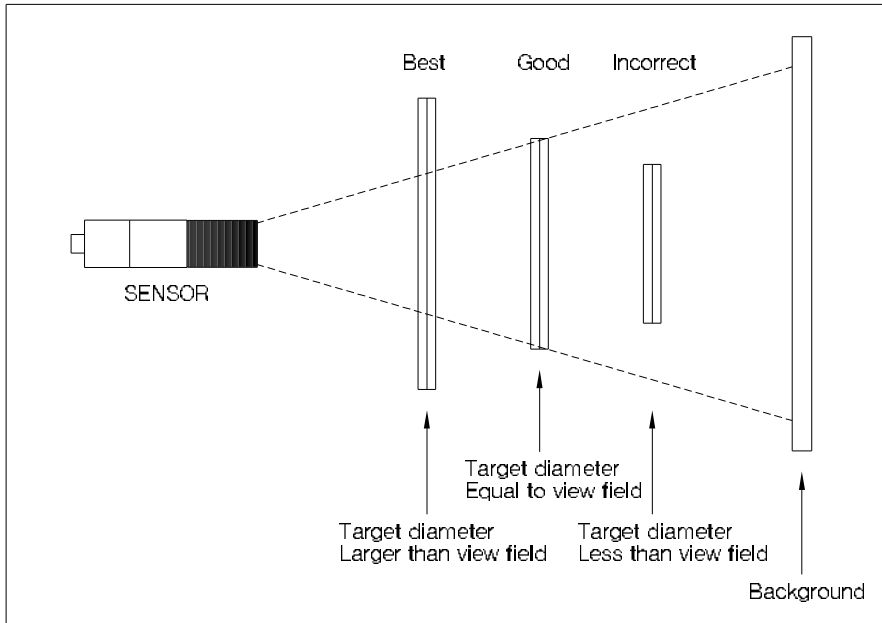
| No. | Wire color | Usage |
|-----|------------|-------------------------------|
| 1 | Red | Power 24VDC(+) |
| 2 | Black | Power signal output(4-20mA) + |

8. Option

| Name | Picture |
|--------------------------------|--|
| Air-purge |  A black cylindrical component with a brass fitting on one end and a central hole, used for air-purge. |
| Up and down adjustable Bracket |  A black plastic bracket with a circular cutout and a vertical slot, designed for mounting and adjustment. |
| Indicator (Model No. DI-20) |  A black rectangular indicator unit with a red LED display showing '50.1', control buttons (FBI, arrow, RET), and a 'GAS OVA CAL.M.' label. |
| 2 Inch LED Display |  A rectangular LED display unit with a red LED display showing '8888.8', control buttons (POWER, MODE, CAL, ZERO, TARE), and a 'BAKONG CO., LTD.' label. |

9. Installation

- Please make sure the target area is larger than the field of view.

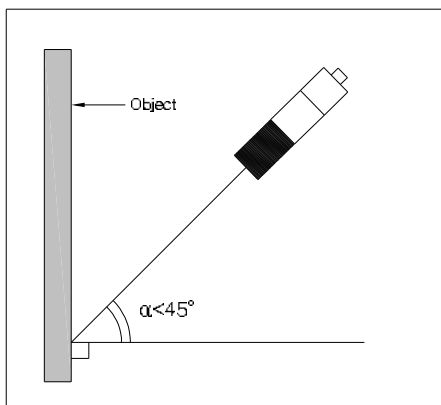


The spot size is decided by the distance from the sensor to the target.

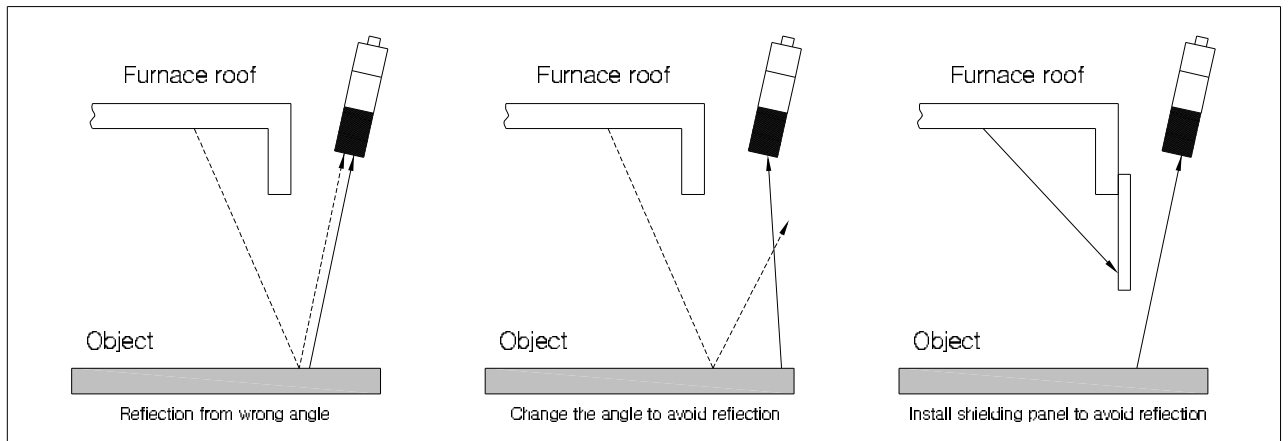
Please refer to the 'section 5. Optical field of view' and make sure your target area is larger than the field of view.

- Please locate the sensor vertical against the target area.

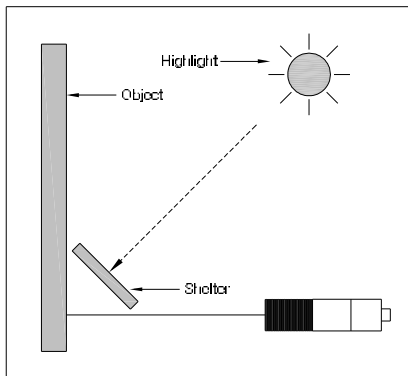
It is the best for you to install the sensor vertical against the target area or object. If it is not available, the sensor should be more than 45° against the target area. Otherwise, it can affect the measuring accuracy.



□ Please avoid the heat reflection from other high temperature materials



□ Please avoid high light.



□ Please avoid electronic noise.

Please avoid the high frequency or high voltage area such as motor, pump, power line, and so on.