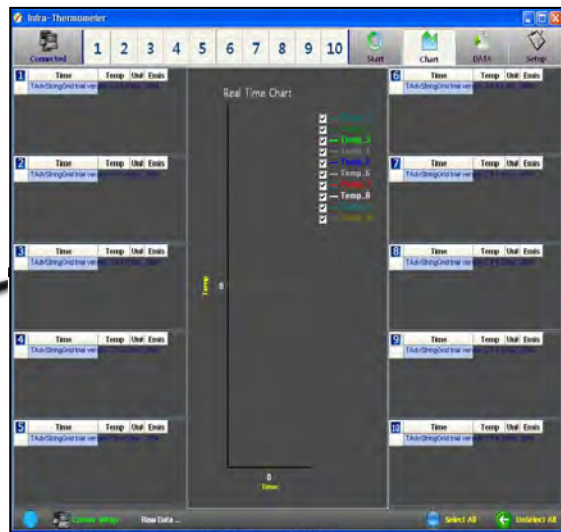# Non-Contact Infrared Temperature Sensor/Transmitter

Temperature Range: -60~350℃

KIR –Compact

1. Features

KIR-Compact 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 -60~350°C in the distance of 8:1 D:S (Distance to Spot)

Emissivity is 0.10 ~ 0.99 adjustable.

KIR-Compact can monitor the temperature in real time in site through its infrared sensor part and signal processing module.

Applications

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

2. Ordering information

Code Number KIR-COMPACT-□-□-□-□

MODEL	Description
KIR-Compact	
Code A	D:S
1	8:1
2	12:1 (Option Price)
Code B	Temperature Range
1	0~350
2	-60~350
Z	Other
Code C	OutPut
N	4~20mA
Code D	Cable Length
1	1m Cable

3. Accessories

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

4. Specification

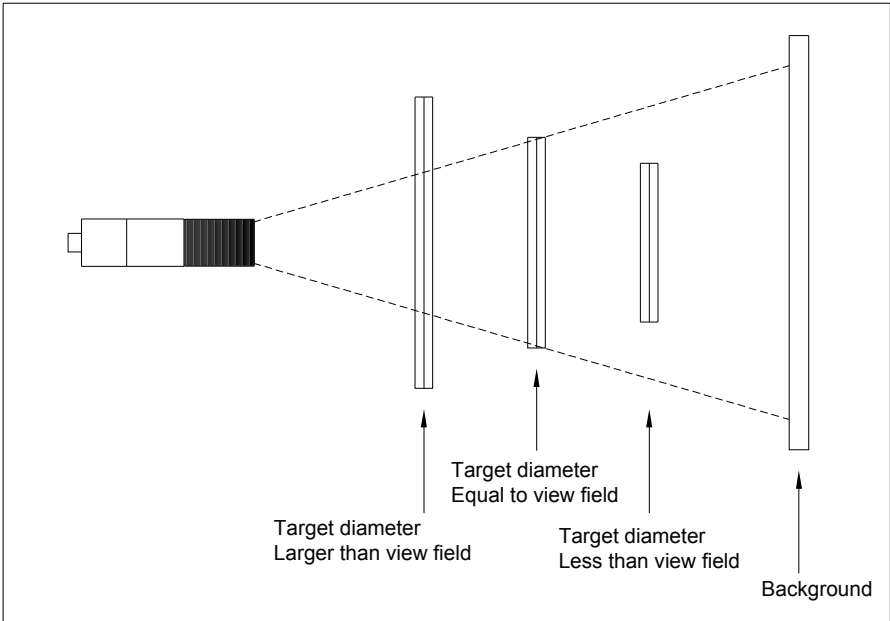| Segment	Specification
Measurement Range	-60~350℃
Device	Thermopile
Accuracy	±1% / full scale
Repeatability	±1% of reading
Distance : Spot	8:1
Optical spectrum wave	8~14㎛
Responsive Time	0.5 sec or below
Emissivity	0.10~0.99
Analog Output	4~20mA
Communication	RS-485
Power	DC 12~24V(Max 100mA)
Ambient temperature(no water cooling)	0~70℃
Temperature Resolution	0.1℃
Operating Relative Humidity	5~90%
Operating Ambient Temperature	-30~85℃
Waterproof	IP65,NEMA 4
Housing material	SUS
Weight	285g
Cable length	1m (standard), other(option)

5. Optical field of view (D:S 8:1)

6. Dimension

M12*1P

∅14

10

27

10

49
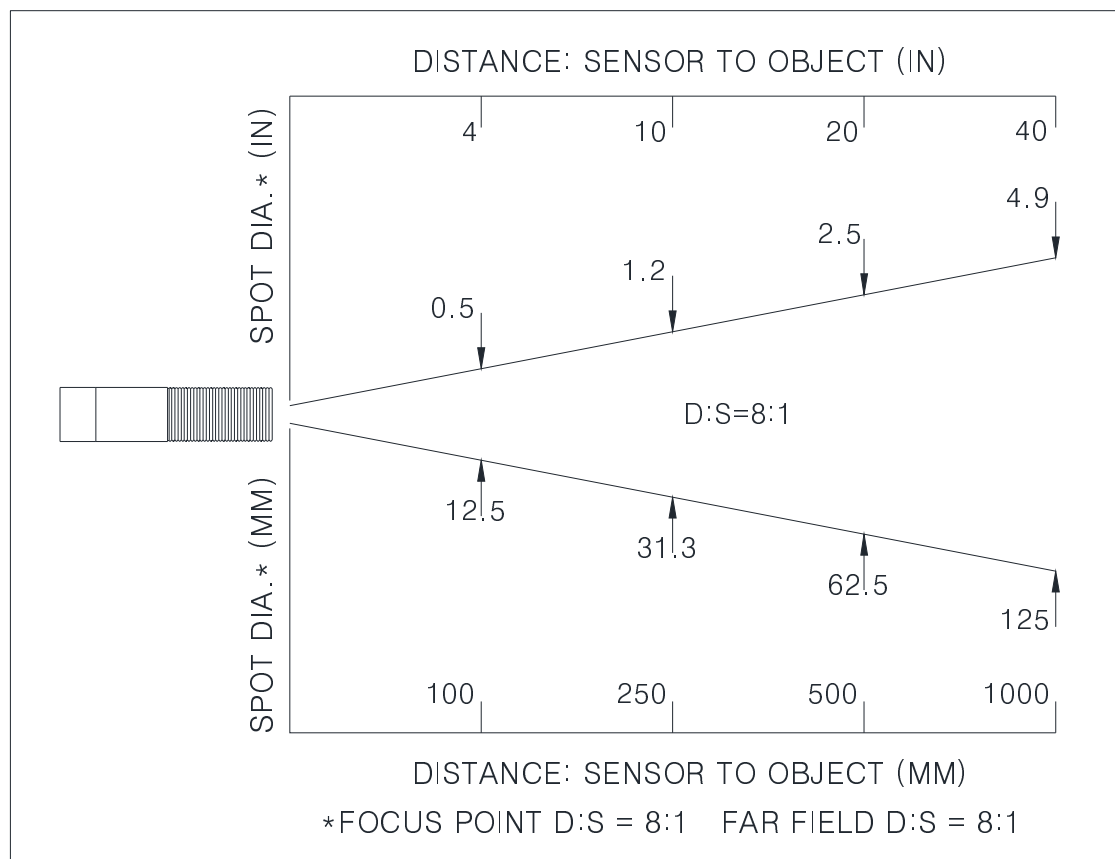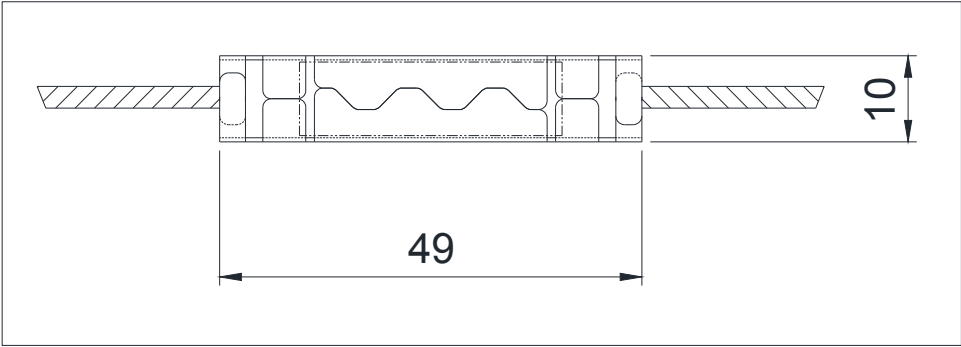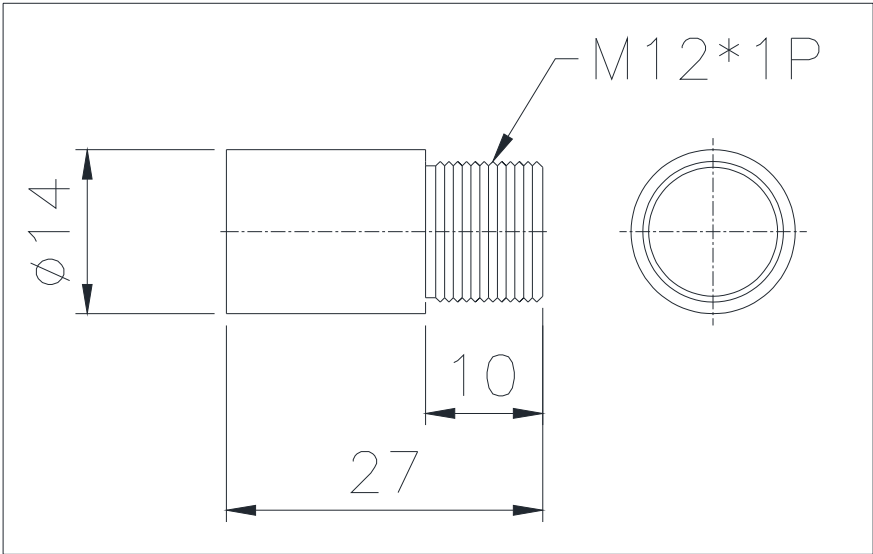
7. Option

Name	Picture
485 To RS232 converter	
Up and down adjustable Bracket	

8. Installation

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

Target diameter
Equal to view field

Target diameter
Larger than view field

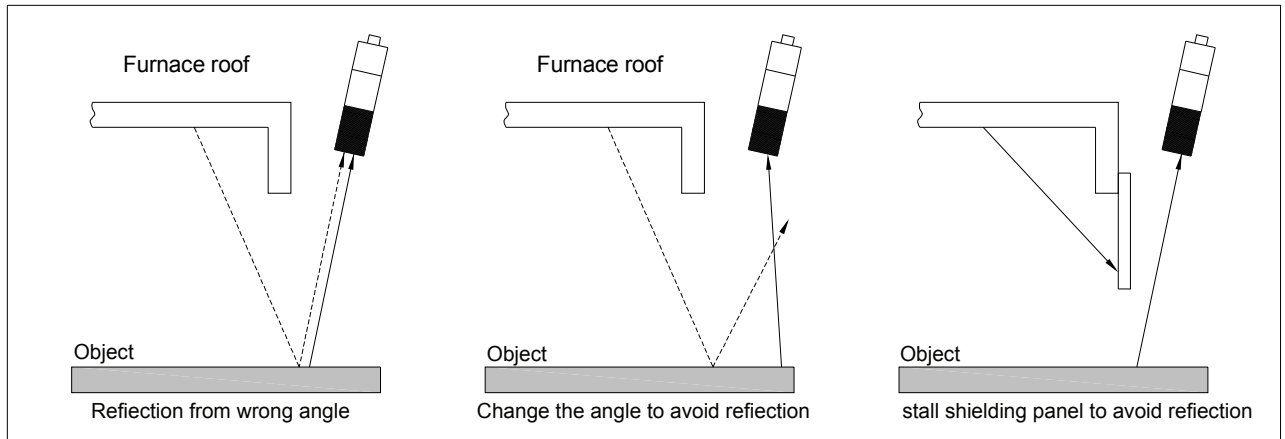Target diameter
Less than view field

Background

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.
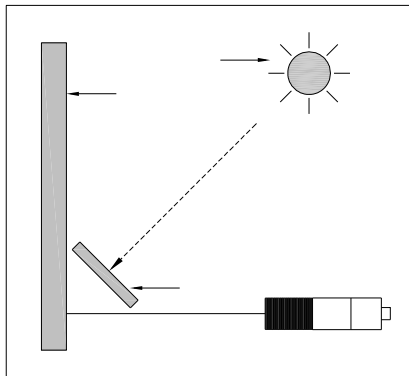
☐ Please locate the sensor vertical against the target.

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.

Object

α<45°
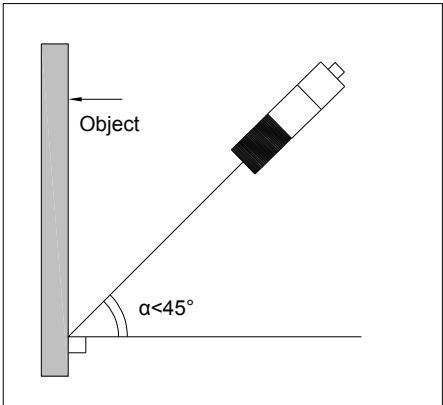
□ Please avoid the heat reflection from other high temperature materials

Furnace roof	Furnace roof	
Object	Object	Object
Reflection from wrong angle	Change the angle to avoid reflection	stall shielding panel to avoid reflection

□ Please avoid highlight.

□ Please avoid electronic noise.

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