# Infrared Temperature Sensor

## RD-600 SERIES

- ■ Non-contact temperature measurement
- ■ For measuring lustrous metal surfaces
- ■ Can also measure through glass
- ■ Temperature range: 50 to 400 ℃, 150 to 1000 ℃
- ■ [Emissivity] & [Scaling] can be set on the electronics module
- ■ CE mark certified
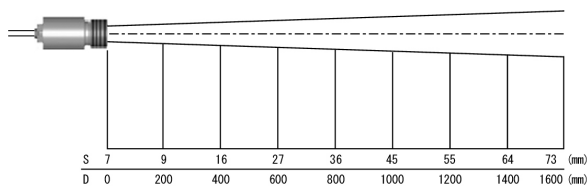
Electronics Module

RD-600 series
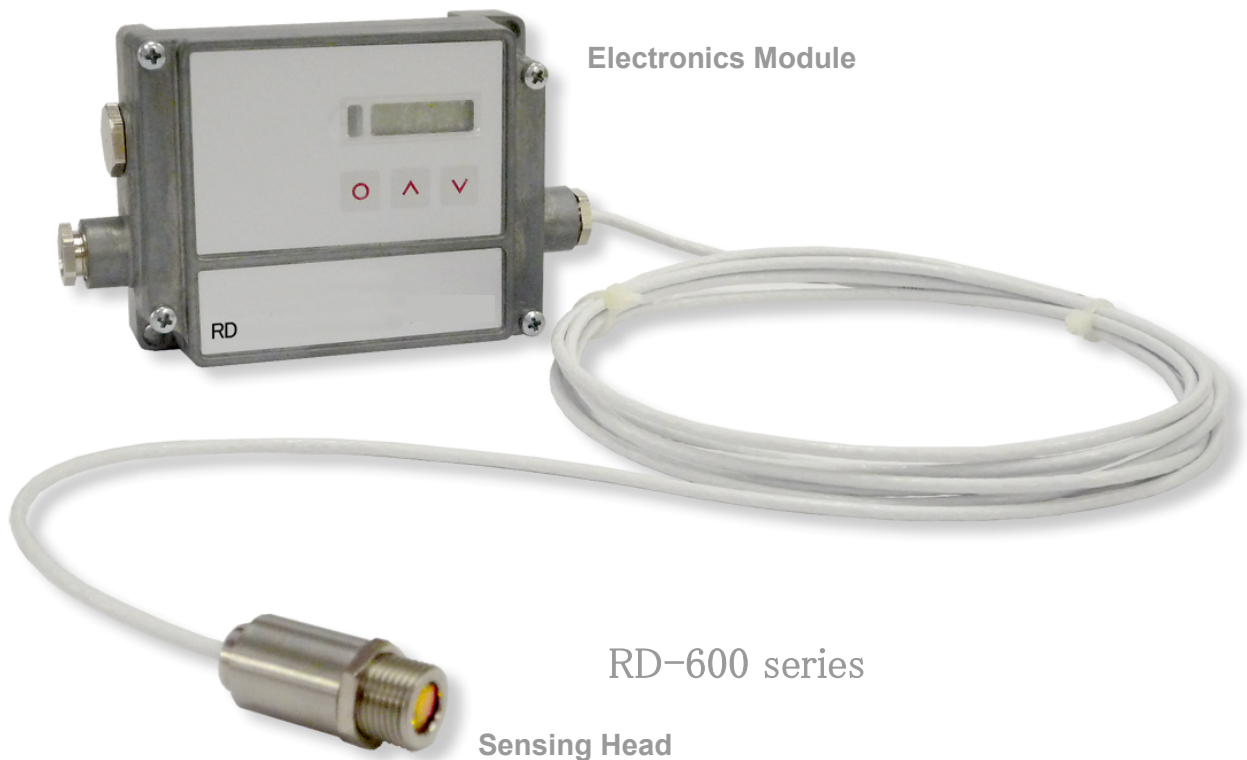
Sensing Head

■ **Target Spot Size versus Distance from Sensing Head**

S: Target spot size
D: Distance from Sensing Head to the object

Field of view D:S = 22:1 (RD-622-LM)

| S | 7 | 9 | 16 | 27 | 36 | 45 | 55 | 64 | 73 | (mm) |
|---|---|---|----|----|----|----|----|----|----|------|
| D | 0 | 200 | 400 | 600 | 800 | 1000 | 1200 | 1400 | 1600 | (mm) |

Field of view D:S = 75:1 (RD-675-HM)

| S | 7 | 7 | 7 | 8 | 11 | 14 | 17 | 20 | 23 | (mm) |
|---|---|---|---|---|----|----|----|----|----|------|
| D | 0 | 200 | 400 | 600 | 800 | 1000 | 1200 | 1400 | 1600 | (mm) |
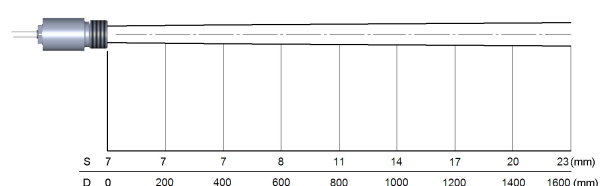
## ■ Model

| Model | Field of View | Temperature Range | Output |
|---|---|---|---|
| RD-622-LM | 22:1 | 50 to 400 ℃ (*) | Voltage: 0 to 5 V, 0 to 10 V DC |
| RD-675-HM | 75:1 | 150 to 1000 ℃ (*) | Current: 0 to 20 mA, 4 to 20 mA DC<br>Thermocouple: K, J |

(Target temperature > Sensing Head temp.+25 ℃)

## ■ Standard Specifications

| | |
|---|---|
| Accuracy (*1) | ±(0.3 % of reading + 2 ℃) (*2) , however, thermocouple output accuracy: ±2.5 ℃ or ±1 % or reading, whichever is greater |
| Repeatability | ±(0.1 % of reading + 1 ℃) (*2) |
| Emissivity | 0.100 to 1.100 |
| Transmissivity | 0.100 to 1.100 |
| Response Time | 1 ms (90 % response) (*3) |
| Spectral Range | 2.3 $\mu$m |
| Supply Voltage | 8 to 36 V DC (Max. 100 mA) |
| Ambient Temperature | Sensing Head: -20 to 85 ℃<br>Electronics Module: 0 to 65 ℃ |
| Ambient Humidity | 10 to 95 %RH (non-condensing) |
| External Dimensions | Sensing Head: 31 x $\phi$14 mm, M12 x 1<br>Electronics Module: 89 x 70 x 30 mm (W x H x D) |
| Weight | Sensing Head: 40 g<br>Electronics Module: 420 g |
| Material | Sensing Head: Stainless steel<br>Electronics Module: Die-cast zinc |
| Mounting | Sensing head: Mounting bracket (sold separately)<br>Electronics module: Mounting by screws |
| Drip-proof/Dust-proof | IP65 |
| Cable Length | 3 m |

(*1) At ambient temperature 23±5 ℃   (*2) $\varepsilon$=1/Response time 1 sec   (*3) Dynamic adaptation at low signal levels
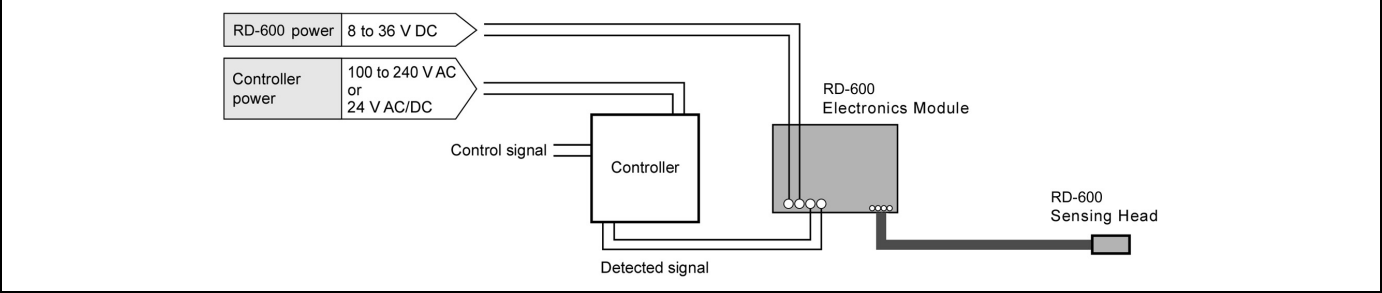
## ■ External Dimensions (Scale: mm)

Sensing Head



Width across flats 14
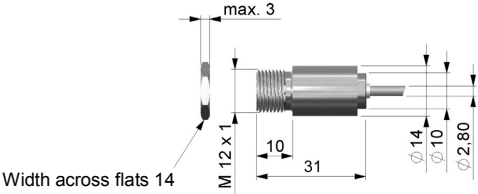
Electronics Module
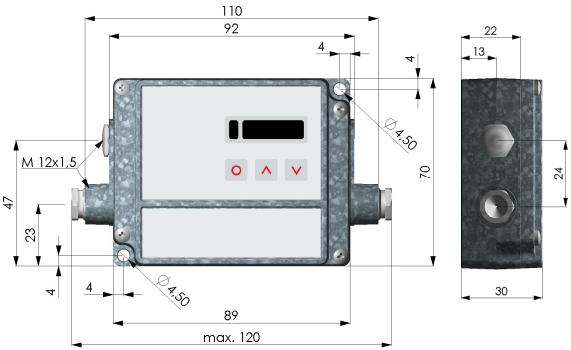


## ■ Wiring (Diagram shows example only.)



## ■ Accessories Sold Separately

| | | |
|---|---|---|
| Mounting bracket (TFB) | Air purge collar (ATAL) | Power supply for the RD series (RDP24) |
| Sighting tube - 40mm (AST40APA) (for RD-622-LM) | Sighting tube - 88mm (AST88APA) (for RD-675-HM) | Sighting tube adapter (included *) |



*: Sighting tube adapter is included with the Sighting tube.