

WRIRT Wide-range Infrared Thermometer Datasheet

WRIRT Highlights

WRIRT wide-range infrared thermometer provides superior accuracy in demanding industrial process applications. It can measure target temperatures ranging from 400°C-2600°C, and 700°C-3000°C. WRIRT wide-range thermometer features an advanced electro-optical design, digital electronics and an intuitive Push Button interface, all combined in a rugged, compact aluminium alloy housing. The sensor can be easily set up for stand alone operation or configured for a multi-sensor network.

WRIRT thermometer features through-the-lens optical sighting. The optical resolution is 300:1 and the smallest spot size is 2mm. Its emissivity is 0.10 to 1.00 in 0.01 increment. The 4-digit LED display provides a convenient on-line indicator of the thermometer's operating status and easy operation of setting parameters.

WRIRT infrared thermometer can be equipped with a compact, value-priced monitor that configures the functions via the front panel. It can also have bidirectional RS485 communications between the thermometer in factory and a computer in the control room. This enables remote set-up, monitoring and maintenance, especially valuable for installation in hard-to-reach locations.

WRIRT wide-range thermometer is designed for temperature measurement in the sealing arrangement such as vacuum furnaces, plasma furnaces, microwave-heating and so on. It is also suitable for non-ferrous processing and non-metallic materials manufacture.

Measurement Specifications:

Temperature Ranges:

| | |
|-----------|------------|
| WRIRT-426 | 400-2600°C |
| WRIRT-730 | 700-3000°C |

Detector

| | |
|-----------|------------------|
| WRIRT-426 | InGaAs 1.1-1.7μm |
| WRIRT-730 | Si 0.4-1.1μm |

Accuracy ±0.5%(FS)

Repeatability ±0.2%

Temperature Resoution 0.5°C

Response Time ≤5ms

Emissivity 0.10 to 1.00 (0.01)



Optical Specifications:

Typical Spot Size at Minimum Focus Distance

| Models | D:S | Minimum Spot Size |
|------------|-------|-------------------|
| All series | 300:1 | 2mm@560mm |

Electrical Specifications:

Outputs

| | |
|---------|--------------------|
| Analog | 0-20mA,4-20mA,0-5V |
| Digital | RS485 |

Adjustable

Emissivity setting
Laser control
Working mode
Response time

Power Supply 24VDC ±20% 500mA

General Specifications:

Environmenta Rating IP65

Ambient Temperature 0-65°C

Storage Temperature -20-70°C

Relative Humidity 10-95%, non-condensing

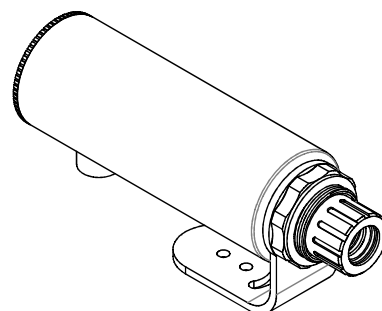
Anti Disturbance JB/T9233.11-1999

Thermal Shock GB/T2423.1,GB/t2423.2

Dimension L:227mm,W: 61mm,H:61

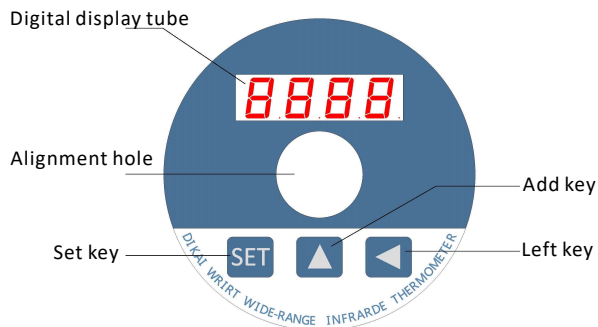
Weight 550g

Sensor and Fixed Bracket:



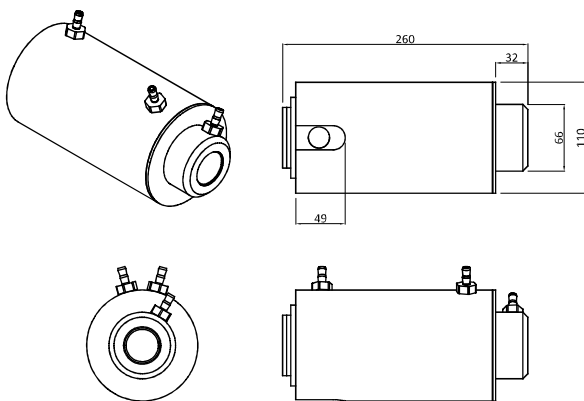
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User Interface



Dimension :

Water-cooled jacket



NOTES: All dimensions are in millimeters.

Options

Options must be specified at time of order

- Manufacturer's calibration certificate based on Q/DK001-2015

Accessories

- RS232/485 converter serving for stand-alone or multiple sensors
- Protective Windows according to spectral range
- Cable extensions in different lengths
- Water/Air Cooled Housing for field retrofit as stainless steel or aluminium
- Extra rugged cast metal housing for thermal/mechanical environmental protection

Optical Specifications

