

# IRPT Infrared Thermometer Datasheet

## IRPT Highlights

IRPT Series pyrometer includes five models, which can measure temperatures from -40°C to 1650°C. Each model has a specific measurement wavelength and temperature range, suitable for both low temperature (-40-800°C) and high temperature (500-1650°C) monitoring of heating processings.

IRPT is a small, powerful and universal infrared thermometer that can achieve long-distance measurement. IRPT's excellent adaptability makes it a good choice for industrial temperature measurement, it can meet user's various needs for on-site temperature measurement.

Users can calibrate the thermometer on the spot, set the temperature measuring speed and communication parameters. IRPT is equipped with coaxial laser sighting system. The laser aiming point diameter is less than 3mm, and does not change with distance. With simple debugging and easy installation, the IRPT thermometer can achieve long distance measurement (between 0.8-15 meters), while keeping the measured accuracy unchanged. It is especially suitable for temperature measurements at very long distance.

## Measurement Specifications:

Temperature Ranges:

IRPTL1	-40-650°C
IRPTL2	-25-800°C
IRPTL3	100-600°C
IRPTH1	500-1400°C
IRPTH2	650-1650°C

Detector

IRPTL1, IRPTL2	Thermopile 8-14μm
IRPTL3	InGaAs 2-2.5μm
IRPTH1, IRPTH2	InGaAs 0.7-1.7μm

Accuracy

IRPTL1, IRPTL2, IRPTL3	±1%(FS)
IRPTH1, IRPTH2	±0.5%(FS)

Repeatability ±0.2%

Temperature Resoution 1°C

Response Time ≤10ms

Emissivity 0.10 to 1.00 (0.01)

## Optical Specifications:

Typical Spot Size at Minimum Focus Distance

Models	D:S	Minimum Spot Size Diameter
IRPTL1	120:1	3mm@360mm
IRPTL2	120:1	3mm@360mm
IRPTL3	120:1	3mm@360mm
IRPTH1	200:1	3mm@600mm
IRPTH2	200:1	3mm@600mm



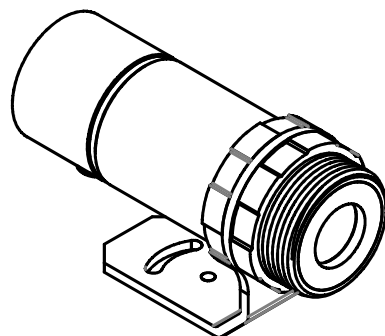
## Electrical Specifications:

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	
Without cooling	0-65°C
With air cooling	110°C
With water cooling	165°C
Storage Temperature	-20-70°C
Relative Humidity	10-95%, non-condensing
Thermal Shock	GB/T2423.1, GB/T2423.2
Anti Disturbance	JB/T9233.11-1999
Dimension	L:max138mm; Φ50mm
Weight	478g

## Sensor and Fixed Bracket:



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## Options

Options must be specified at time of order

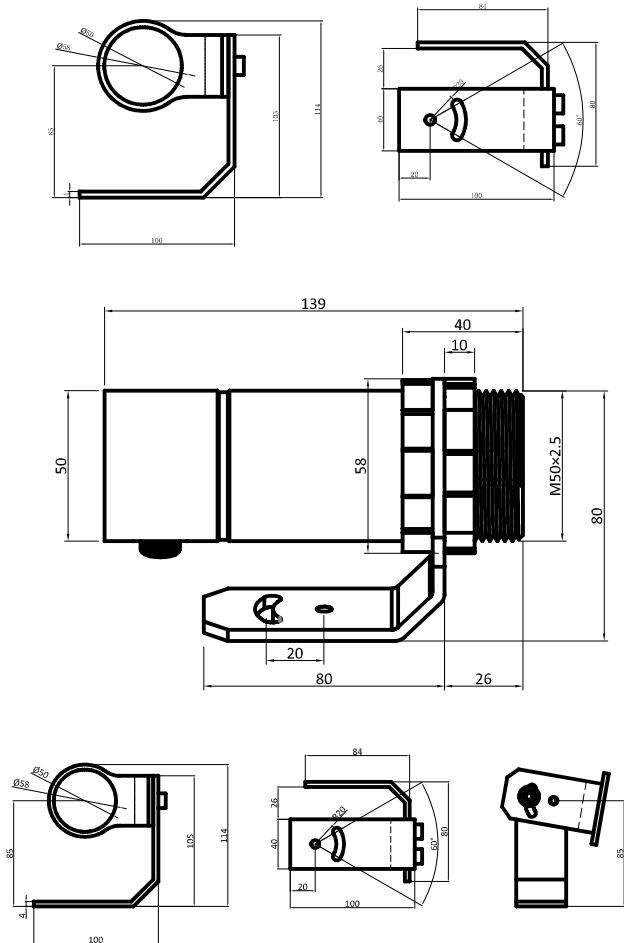
- Manufacturer's calibration certificate based on Q/DK001-2015

## 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

## Dimension :

Fixed Bracket



NOTES: All dimensions are in millimeters.

## Optical Specifications

