Highly Accurate On-Line Infrared Non-Contact Pyrometer in Two Wire Technology

CE **300°C to 2500°C**

• T3-514 PL

T3-514 PL IR Pyromter model provides the advantage of non contact temperature measurement of Glass and Quartz surfaces. Glass is transparent in the visible and near wavelengths of Infrared region. In spectral range of 5.14 µm emissions are very high with almost zero reflections which is very useful as temperature of the Glass surface can be measured reliably and accurately. *T3-514 PL* IR thermometer works in spectral range of 5.14 µm thus, highly useful for temperature measurement in Float Glass industry. Designed for easy integration into standard 2 wire system,this format combines the high accuracy of digital signal processing with the simple connection. *T3-514 PL* IR Pyrometer is used for target temperature ranging from 300°C to 2500°C. The electronic assembly is protected by IP65 rugged stainless steel housing.

The parameters like Emissivity can be adjusted directly at device. Other parameters like Analog Sub Range, Response Time, Peak Picker, Valley Picker etc can be preset ex-works or adjustable via Software Infrasoft. T3 Series is provided with TTL output. Using the USB interface *Infralink* and Software pyrometer can be connected to PC for parameter setting and data logging.

Technical specifications

Model	T3-514 PL
Temperature Range (Analog sub-range adjustable)	300°C….1400°C 400°C…2500°C
Spectral Range	5.14 µm
Photodetector Type	Thermopile
Distance to Spot Size Ratio	50:1
Emissivity (ε)	0.1….1.0 adjustable
Response Time	60 msec. adjustable upto 10sec
Accuracy	T < 500°C; ± 1.5% of measured value T ≥ 500°C; ± 1% of measured value (The instrument must be at constant ambient temperature for minimum 25-30 mins in power on condition)
Repeatability	0.3% of reading in °C + 1°C
Sighting Option	Laser Pilot Light (PL)
Analog Output	2 wire....4-20mA Linear Temperature Output Load : Max 500Ω at 24V DC, Max 200Ω at 18V DC
Digital Output	TTL
Operating Temp. Range	0°C…….70°C 0°C…..200°C (With water cooling jacket)
Storage Temp. Range	-20°C…70°C
Adjustable Parameters and Features via Software	Emissivity, Response Time, Analog Scale (Sub Range), Unit of Temperature (°C/°F), Peak Picker, Valley Picker
Power Supply	24 V DC ±25% (5 to 25 V DC for Laser Targeting light (I≤30 mA)
Power Consumption	For Laser Targeting Max 0.65 watt For Device Max 0.6 watt
Laser Power	<1 m watt
Protection Class	IP65
Housing	Stainless Steel
Operating Humidity	10-95%, Non-Condensing Conditions
Weight & Dimensions	250g Dia=Ø40mm; Length=113.5mm

Features

- Two wire technology for easy electrical connection
- Wide temperature range 300°C....2500°C
- Spectral range 5.14 µm
- Laser Light for precison targeting of the measuring object
- 60 ms response time adjustable upto 10 sec
- Analog output 2 wire....4-20 mA (Isolated)
- Digital TTL output & Infrasoft software
- Small spot sizes
- Emissivity can be adjusted directly at device
- Accessories for mounting and cooling options
- Very good stability

Standard Scope of Supply

- Pyrometer with 3 mtr. long connection cable
- Analog output 2 wire....4-20 mA
- Emissivity adjustable switch
- TTL output
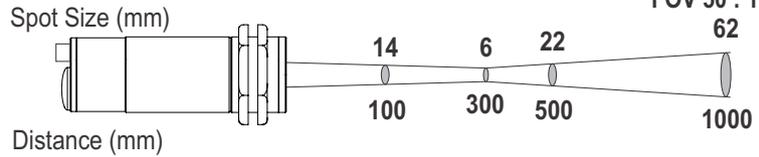- Calibration certificate, Operation manual

Optional

- Extra cable lengths
- Mechanical and Electrical Accessories
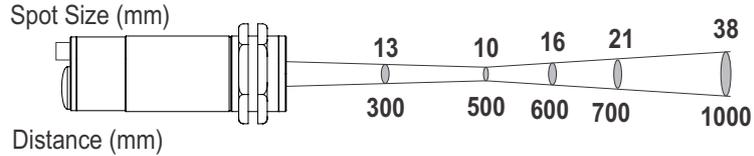- USB Interface card & PC Software

Applications

- In glass hardening & bending.
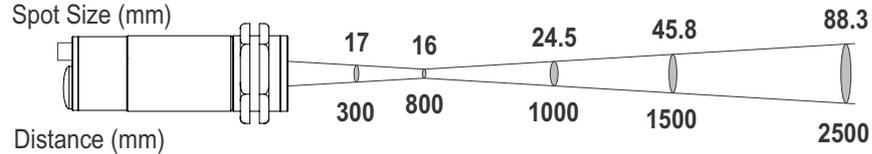- Temperature measurement of float glass.

Spot Sizes

Optics 300

Spot Size (mm)

FOV 50 : 1

14	6	22	62
100	300	500	1000

Distance (mm)

Optics 500

Spot Size (mm)

13	10	16	21	38
300	500	600	700	1000

Distance (mm)

Optics 800

Spot Size (mm)

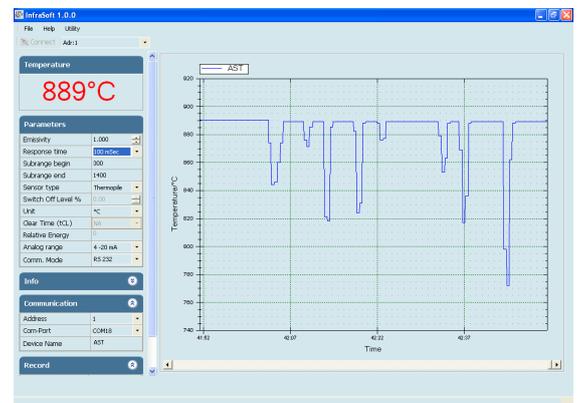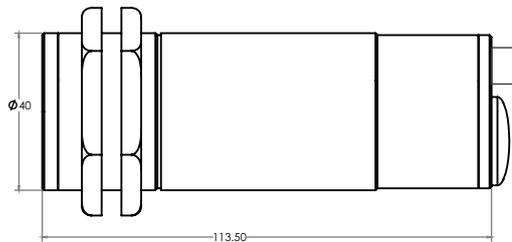| 17	16	24.5	45.8	88.3
300	800	1000	1500	2500

Distance (mm)

Software "Infrasoft"

AST "Infrasoft " software is provided with Infralink USB Interface accessory. It offers parameter setting, view real time graph, offline graph and to evaluate measuring data. Communication between the pyrometer and the software is implemented via USB dongle. It comes with record feature, spot size calculator and parameter settings features.

Some of the parameters adjustable via software are

- Response Time
- Picker
  - Peak
  - Valley
- Sub Range

USB Interface

Pyrometer Drawing

Ø 40

113.50

Accessories

Power Supply Unit (Reference no: 9000-02)	Temperature Indicator (Reference no: 9000-01)