AST★ Accurate Sensors Technologies

Highly Accurate Digital pyrometer with Extended Sensor Head, Inbuilt LCD and Keypad for Parameterization

FOR HOT ENVIRONMENT UPTO 180°C

CE   **0°C to 800°C**   **EL50-H**

EL50-H is a digital Pyrometer in economic range with extended sensor head in 4 wire technology, for non-contact temperature measurement between 0°C to 800°C.The sensor head is unaffected by electromagnetic interferences. The pyrometer sensor head is specially designed to withstand ambient temperature upto 180°C without cooling.

The pyrometer is equipped with a Inbuilt 4 digit LCD display which offers many signal processing features. The electronic box with integrated Keypad helps in setting parameters like Emissivity,Analog Sub range,Set point,Hysteresis (Hyst),Analog Output,Unit of temp(°C or F),Response Time,Peak Picker and Sensor address etc. Analog outputs options available are 4…20mA, 0…20mA, 0…10V, Thermocouple type "K" or "J" (userselectable) via keypad or software. RS-232/RS-485 serial interface card is available as optional.

EL50-H is provided with USB 2.0 output and PC software. The pyrometer can be powered through USB port. In this case no external power supply is required. 24 V DC is required for operation of Analog Output, RS - 232 & RS - 485 & Relay Output.

LCD display for measuring temperature and parameterization

Function key to select different functions

Sensor cable maximum length 15 mtr.

USB output

24V DC input, analog & digital output cable

Function keys for parameter setting

Wall Mounting holes

Technical Specifications

Model	EL50-H
Temperature Range(Analog sub-range adjustable)	0°C….800°C
Spectral Range	8…14 μm
Photodetector Type	Thermopile
Distance to Spot Size Ratio	2:1 15:1 (To be specified while ordering)
Emissivity (ε)	0.1….1.2 adjustable
Response Time	60 msec adjustable upto 10 sec
Accuracy	±1.5% of the measured value or 3°C whichever is greater (The sensor head must be at constant ambient temperature for a minimum of 15 minutes)
Repeatability	0.3% of reading in °C + 1°C
Analog Output	0-20mA, 4-20mA, 0-10V, Thermocouple Type "K" or "J" (User selectable)
Digital Output	USB 2.0 RS-232/RS-485 interface card (Optional) *At a time only one digital output possible
Operating Temp. Range	Electronic box upto 70°C Sensor head upto 180°C
Storage Temp. Range	-20°C…70°C
Relay Output	Relay Output with hysteresis 60V DC/42V AC RMS, 0.4A
Adjustable Parameters and Features via Software	Emissivity, Response Time, Clear Time (Peak Picker), Analog Output, Analog Scale (Sub Range), Unit Of Temperature (°C/°F), Communication mode(Comm. mode), Record feature etc.
Adjustable Parameters and Features via Keypad	Emissivity, Setpoint, Hysteresis (Hyst), Analog Sub Range, Analog Output, Unit of temperature, Sensor address, Response Time, Clear Time(Peak Picker) etc.
Power Supply	12V DC to 28 V DC with reverse polarity protection
Power Consumption	Max 2.5 watt
Protection Class	IP65
Housing	Sensor head-Stainless Steel; Electronic Box : Zinc
Isolation	Power supply, *Digital output and Analog output are galvanically islolated against each other * Not applicable for USB 2.0 digital output
Operating Humidity	10-95%, non condensing conditions
Weight & Dimensions	600g 112.5mmx82.5mmx33mm(L x W x H)

Features

- Power supply (12V DC to 28 V DC) with reverse polarity protection
- Sensor head can withstand ambient temperature upto 180°C
- Spectral range 8 μm...14 μm
- Wide temperature ranges (0°C to 800°C)
- Inbuilt LCD Display and Keypad for parameterisation
- Fast response time within milliseconds
- Analog output like 4…20mA, 0…20mA, 0…10V, Thermocouple type "K" or"J" (user selectable)
- USB2.0 Digital output and RS-232/RS-485 Serial interface card
- Relay output
- User friendly PC software for communication

Standard Scope of Supply

- Pyrometer with LCD Display
- Keypad for parameterizing,
- Extended sensor head with 3m cable
- USB 2.0 Digital output, USB Cable
- Relay Output
- Analog output 4…20mA, 0…20mA, 0…10V, Thermocouple Type "K" or "J" (user selectable)
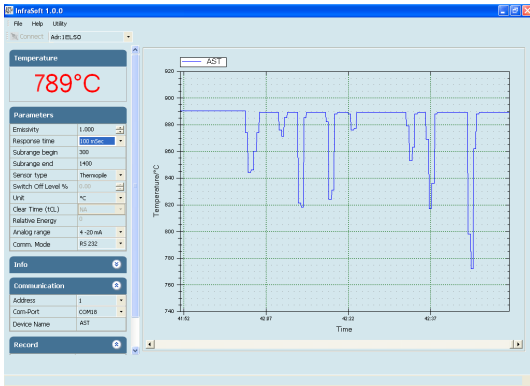- Calibration certificate, Software & operation manual

Optional

- Mechanical and Electrical Accessories
- RS-232 & RS-485 serial interface card
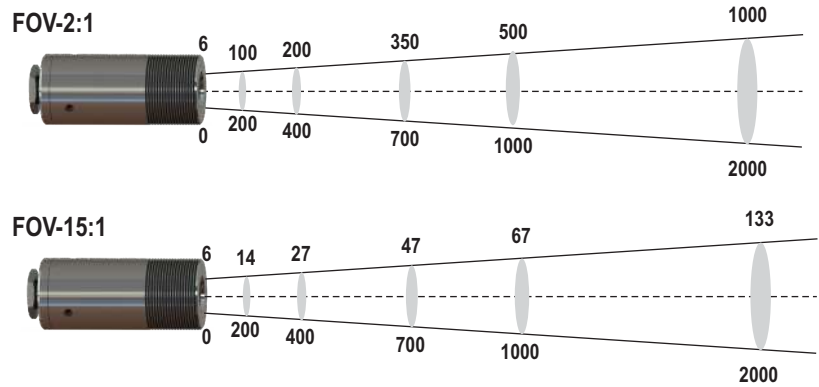- Extra Cable Lengths

Applications

- Plastic, Rubber & Ceramic
- Paper
- Textile
- Fluids
- Oxide/Painted metal surface,
- Wood and Glass Industries

We measure accurate temperature in extreme conditions

Software "Infrasoft"

Spot Sizes

FOV-2:1

FOV-15:1
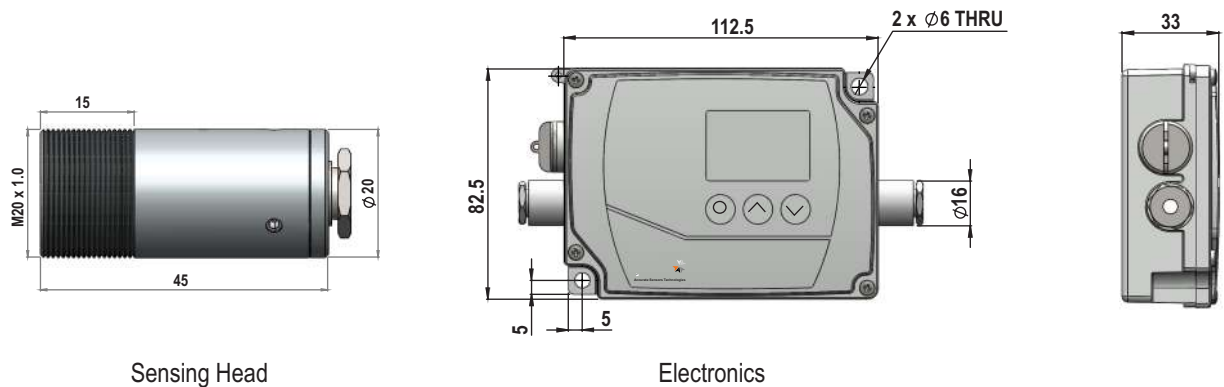

*All Dimensions are in "mm".

Pyrometer Drawing

Sensing Head

Electronics

Accessories

Air Purge Unit For Sensor Head (Reference No. - 8300-03)	Adjustable Mounting for Sensor Head (Reference No. - 8300-04)	Converter RS-232 ↔ RS-485 (Reference no: 9000-03)

Power Supply Unit
(Reference no: 9000-02)

AST

Accurate Sensors Technologies

We measure accurate temperature in extreme conditions