

## Highly Accurate On line Infrared Non-contact Pyrometer With fibre optic cable for Glass Industry

€ 600°C to 1800°C

450 G-2

**450 G-2** is specially designed highly accurate digital IR Fibre Optic pyrometer which provides high performance and low maintenance of non contact temperature measurement of molten glass in Glass industries for melting tank, Fore hearth, Feeder and Working end. The rugged fiber optic cable is designed to withstand high ambient temperature in glass industry without water cooling. Emissivity, Subrange, Response time can be preset ex-works or adjusted through software. This enables the instruments to be adapted to various measuring tasks. **450-G2** IR Pyrometer has solid stainless steel housing which provides high operational safety in rough industrial environments. The particular IR Pyrometer model has small optical head which makes it easier to reach harshest of locations



### Technical specifications

Model	450 G-2
Temperature Range (Analog sub-range adjustable)	600°C to 1800°C
Spectral Range	1 µm
Photodetector Type	Si
Distance to Spot Size Ratio	100:1 (Min Spot Size 11mm)
Emissivity (ε)	0.05.....1.0 adjustable via DIP switch
Response Time	250 msec adjustable upto 10 sec
Accuracy	± 0.3% of measured value or ± 3°C whichever is greater
Repeatability	± 0.2% of reading in °C + 1°C
Analog Output	4 - 20mA
Digital Output	USB 2.0
Operating Temp. Range	Pyrometer 0°C....70°C Optical head and Fibre Optic max 250°C
Storage Temp. Range	-20°C...70°C
Adjustable Parameters and Features via Software	Response Time, Analog Scale (Sub Range), Unit Of Temperature (°C/°F) etc
Power Supply	24 V DC
Power Consumption	Max 0.5 watt
Protection Class	IP65
Housing	Optical head-Stainless Steel; Electronic Box: Aluminium
Operating Humidity	10-95%, non condensing conditions
Weight & Dimensions	0.500 Kg 112.5mmx82.5mmx33mm(L x W x H)

### Features

- Two Wire Designed IR Pyrometer with fibre Optics
- Temperature measurement from 600°C...1800°C
- Spectral range 1.0 µm
- Analog Output 4-20mA
- USB 2.0 Digital output
- Highly accurate 0.3% of measured value
- Fast response time of 250 msec
- Fibre optic withstand ambient temperature upto 250°C
- Very good stability
- User friendly PC software

### Standard Scope of Supply

- Two Wire Pyrometer with 5mtr Long heavy duty Fibre optic cable in SS conduit
- Optical head
- Analog Output 4...20mA
- USB 2.0 digital output
- 1.5 mtr. long connection cable with connector
- Calibration Certificate, PC software and operation manual

### Optional

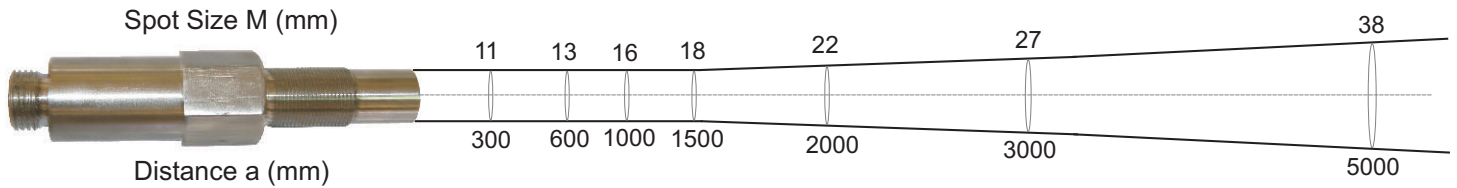
- Extra cable lengths
- Mechanical and Electrical Accessories
- USB cable

### Applications

- Furnace Crown
- Working end
- Feeder
- Fore hearth
- Furnace sidewall

We measure accurate temperature in extreme conditions

## Spot Sizes

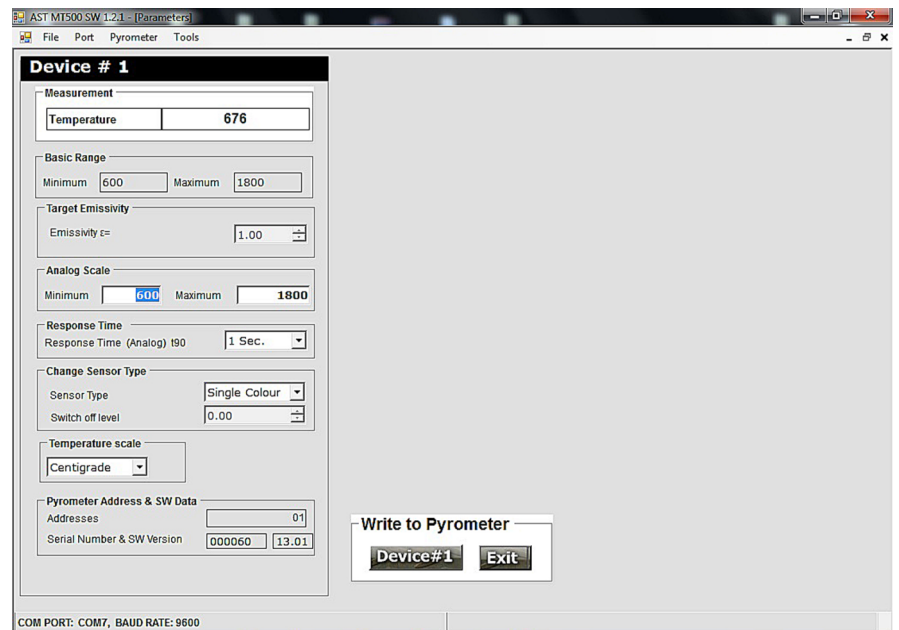


## Software "MT500"

AST "MT500" software is under standard scope of supply. It offers possibilities of connecting two pyrometers simultaneously for parameter setting, Communication between the pyrometer and the software is implemented via a cable connected between the pyrometer and the PC serial port. It comes with record feature and parameter settings features.

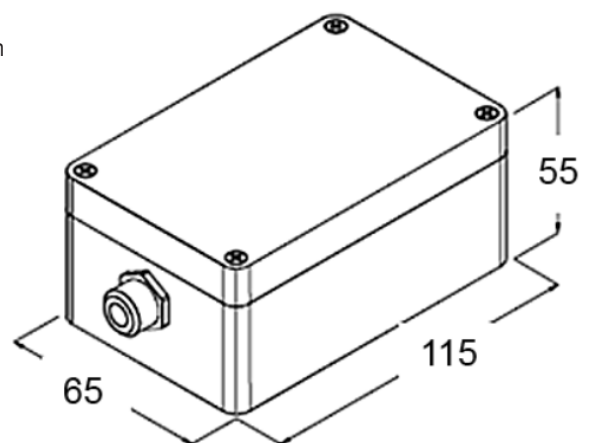
Some of the parameters adjustable via software are

- Emissivity
- Response Time
- Analog Sub Range
- Unit Of Temperature(°C/°F)



## Pyrometer Drawing

### Optical Head



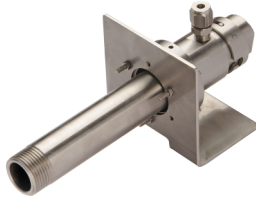
Electronic box

All Dimentions in mm

We measure accurate temperature in extreme conditions

## Accessories

**Air purge unit with sighting tube**  
Reference No. 8100 - 01



**Air purge unit with Ceramic tube**  
Reference No. 8100 - 02



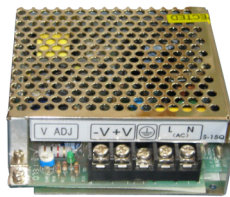
**Air purge with Mounting flange**  
Reference No. 8100 - 03



**Fiber Optic Cable**  
Reference No. 6000 - 01 (5 Mtr)  
Reference No. 6000 - 02 (10 Mtr)



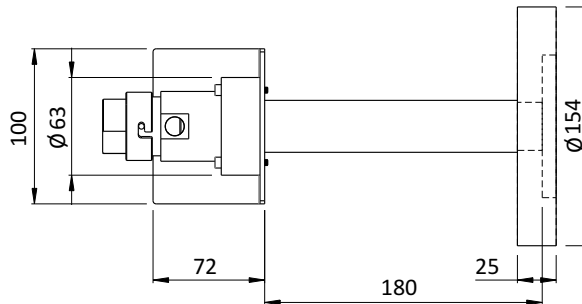
**Power supply**  
Reference No. 9000 - 02



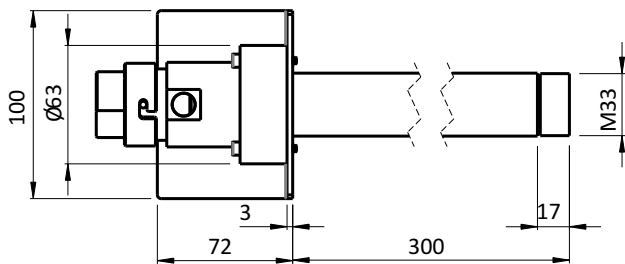
**Temperature Indicator with retransmission**  
Reference No. 9000 - 01



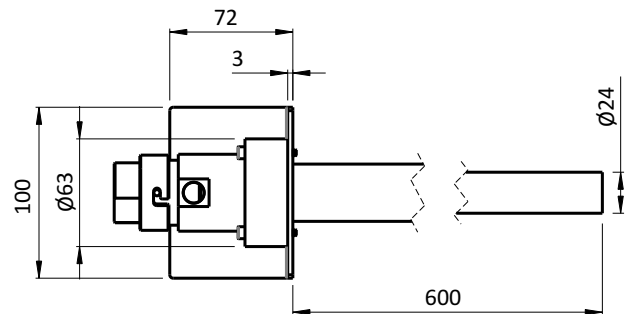
## Dimensions



**Air purge with Mounting flange**  
Reference No. 8100 - 03



**Air Purge Unit with Sighting Tool**  
(Reference No. 8100-01)



**Air Purge Unit with Ceramic Tube**  
(Reference No. 8100-02)



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