

Precious metal Thermocouples like Type R, S & B is used in very high temperature applications. Since the elements are made of Platinum and Rhodium these type thermocouples are very expensive. Two dissimilar precious metal wires are twisted and soldered to make a Thermocouple junction. Such soldered junctions are very fragile to the shock and vibration. Also, ingress of gases through the protection tube will also deteriorate the Precious metal and will affect the accuracy and life. While thermocouples are reliable temperature measurement devices, they do drift with time. Maximum exposure temperature, cyclic measurements, and frequency of the cycles affect the metallurgy with a resultant drift, usually downward. Unfortunately, this drift cannot be predicted and rectified. Replacement of sensor is the only solution.

AST Introduce PYROWELL as a solution to above problems. Pyrowell is a combination of Infrared Non-contact pyrometer and a one end closed sighting tube. Electronic part of the system is separated from the process atmosphere through a rugged fibre optic. This system gives an economic and very accurate temperature measuring solution for high temperature. Since it's a non-contact device, it gives trouble free operation for years. The one end closed sighting tube works as a perfect black body hence like other Infrared sensors no need of setting of emissivity. The one end closed tube assures very high accuracy of measurement.

System can be field calibrated and any drift after years of operation can be re-calibrated and can be fixed to the claimed accuracy with out removal of the system from the process

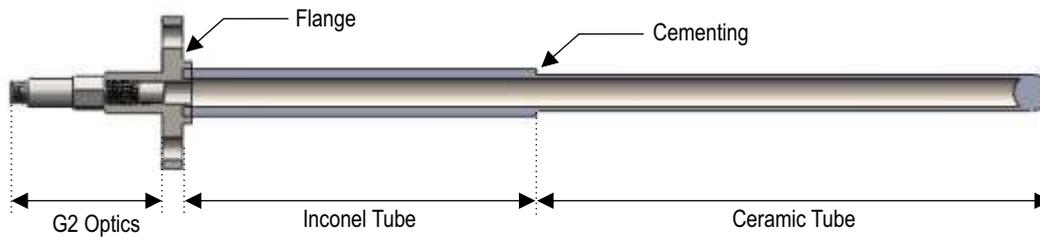
It gives both analogue and digital output so that can be coupled to the PLC or any existing system



Technical specifications

Model	450 G-2
Temperature Range (Analog sub-range adjustable)	600°C to 1800°C
Spectral Range	1 μ m
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	\pm 0.3% of measured value or \pm 3°C whichever is greater
Repeatability	\pm 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)

Ceramic Thermowell Details



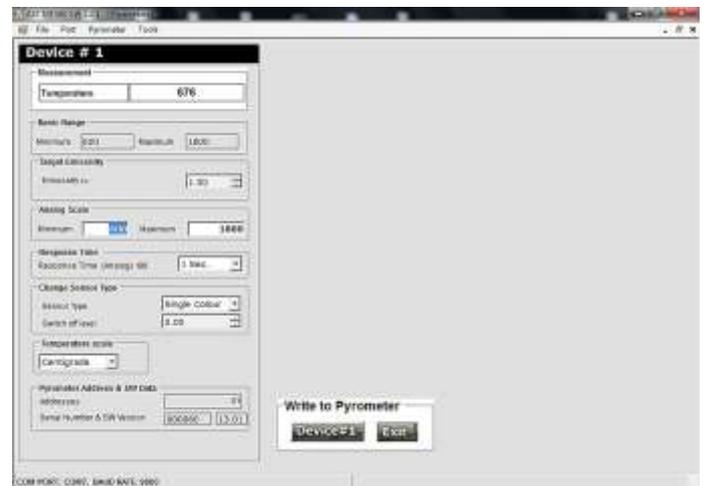
Length From G2 Optics	1000 mm
Pyrometer Spot size	16 mm
Suitable Ceramic Tube	24 x 18

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)



Accessories

Fiber Optic Cable

Reference No. 6000 - 01 (5 Mtr)
Reference No. 6000 - 02 (10 Mtr)



Power supply Input 110/230V AC

Reference No. 9000 - 02
Output 24 V DC, 0.7Amp.



Temperature Indicator (Reference no: 9000-01)



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