



SERIES 5000 DIGITAL TEMPERATURE SENSOR



Sensor with Air Purge



Sensor with Water Cooling Collar and Air Purge Nozzle fitted

Features

- ◆ High Accuracy Digital Temperature Sensors
- ◆ Two temp ranges: 385°C-1600°C and -50°C to 975°C
- ◆ Accuracy $\pm 0.3\%$ or 0.5% depending on model

- ◆ Programmable emissivity gain from 0.100 to 1.100
- ◆ Programmable 4-20mA (or 0-10 VDC) Analogue Output
- ◆ Configurable via USB Interface or internal switches
- ◆ TTL Interface Option Available

- ◆ Robust Stainless Steel housing
- ◆ Totally encasing water cooled housing option
- ◆ Air Purge Nozzle operates from non-instrument air
- ◆ Dual Alignment Laser Beams show target size on product

- ◆ Without cooling operates up to 85°C
- ◆ Lasers automatically cut out at 50°C
- ◆ Digital Detection and Alarm Output

Typical Applications

- Furnace Exits - Rolling Mill Stands - Cooling Boxes - Annealing Lines

The Series 5000 Digital Temperature Sensors have been engineered to meet the harshest environments of the steel and metals industry. These high performance temperature Sensors are available in two models with wide temperature ranges in robust stainless steel housings to enable their mounting in the harshest of environments to meet the most demanding requirements. Air purging is provided as standard.

Whilst these Sensors will stand a very high ambient of (85°C with no laser/50° C with Laser) they are also optionally available with a totally encasing stainless cooling jacket for water or Vortex Inline air cool supply. As a further safety feature, the Lasers cut out at 50°C.

These Sensors uniquely incorporate dual laser emitters for alignment and as indication of target area on the product. Both USB interface and internal switches allow quick and easy configuration of parameters to meet most requirements within the mill. Both the emissivity and analogue outputs are programmable. The included software provides adjustment of peak, valley, average or extended hold format.

Connection to a PLC, alarm or temperature records is straight forward using the analogue output connection. All Models are fully configurable on site via provided software and USB Interface or internal switches under the back cover.

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Dimensions

Housing Specifications

Housing: Stainless Steel/Glass
Air Purge Nozzle: Anodized Aluminium
Housing Rating: IEC IP65
Vibration Rating: IEC 68
Cable Length: 2 M

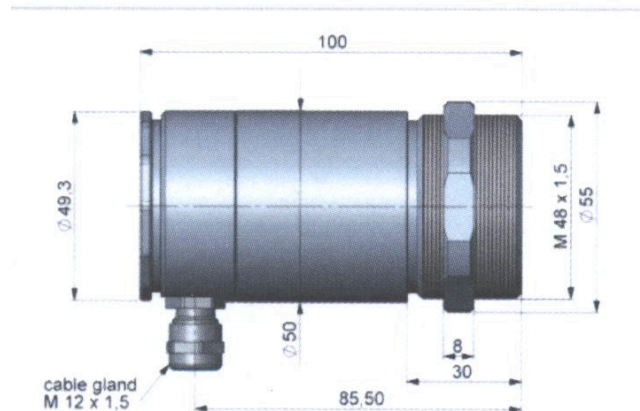
Water Specifications

Water Pressure: 5 to 10 PSI
Water Volume: Regulate to 0.5 litres/minute
Water Temp: For Ambient Temperature upto 90° use water chilled to 2°C

Air Specifications

Air Pressure: 2cu.ft/min at 5 PSI for normal conditions
 5cu.ft/min at 5 PSI for severe conditions
Air Rate: 0-12ft/sec

Standard Sensor without Air Purge and Water Cooling



General Specifications

Model	5016-HT	5010-LT
Temperature Range	385 °C to +1600°C	50 °C to +975°C
Spectral Range	1.6µm	8—14 µm
Field of view (selectable focus)	300:1	50:1
Accuracy	0.3% of reading	0.5% of reading
Laser Emitters, (Show target size)	Class 2 Red	Class 2 Red
Repeatability	0.1%	0.5%
Response Time (90% signal)	10 ms	150 ms
Emissivity/ Gain Adjustment	0,1 00 to 1,100	0.100 to 1,100
Operating Temperature	-0°C to +85°C (50°C with Laser)	-0°C to +85°C (50°C with Laser)
Supply Voltage	5 – 28 VDC	5—28 VDC
Current Draw	12mA at 24VDC	12 mA at 24VDC
Rating	IP65 (NEMA 4)	IP65 (NEMA 4)
Air Supply	Dry non-instrument air	Dry non-instrument air
Vibration and Shock Resistance	IEC 68 –2-6 /2-27 any axis	IEC 68 –2-6 /2-27 any axis
Relative Humidity	10 –95 %, non condensing	10 –95 %, non condensing
Weight (w/o cooling/ with cooling)	600 g / 2.3 kilo (exc. Brkt)	600 g / 2.3 kilo (exc. Brkt)
Target Spot Size	12 mm at 3600 mms	24 mm at 1200 mms
Max Ambient without Cooling	85°C (50 °C with Laser On)	85°C (50 °C with Laser On)
Digital Output	Uni-directional , 9,6 kBaud, 0/3	Uni-directional , 9,6 kBaud, 0/3
Detection and Output Alarms	0—30 V /500 mA	0—30 V /500 mA
Connection	Hi temp Cable of 3 mtrs length	Hi temp Cable of 3 mtrs length
Analogue Output (Thermocouple J&K)	Configurable 4 –20mA	Configurable 4 –20mA
Loop Resistance (Supply dependant)	Max 1000 ohms	Max 1000 ohms
Signal processing adjustments	Threshold and hysteresis. peak hold, valley hold, average, extended hold, via USB Interface Module provided and internal switch under back cover	

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We reserve the right to alter specifications without prior notice. Specifications without tolerances are typical values.

Your Local Sales Representative:



Bulletin MC-VR504-08-01
January 2008