NON-CONTACT GAS TEMPERATURE SENSOR

APPLICATIONS

For the continuous measurement of gas temperature in clean or dust-bearing hot industrial processes.

Optional Direct-Mount Camera

Temperature Measurement Cabinet

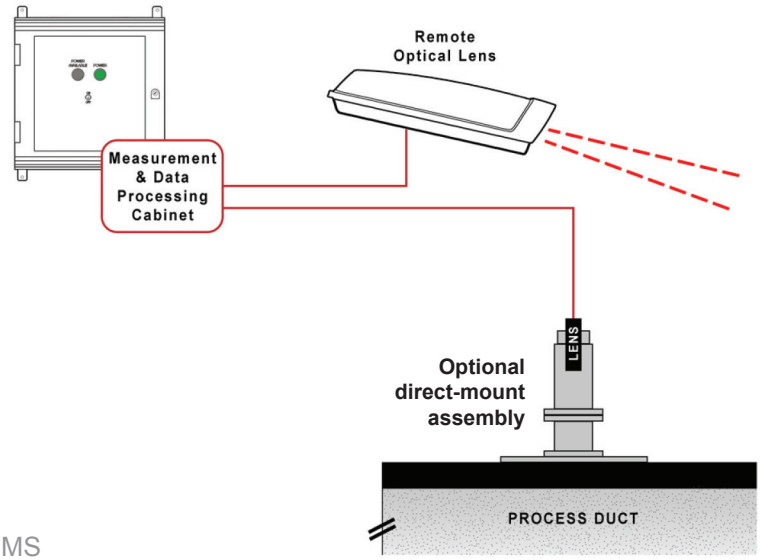
Remote-Mount Camera

FEATURES

- Continuous, real-time measurement of gas temperature
- Non-contact sensor may be mounted up to 30m away from target
- Passive sensor has no consumable parts and requires minimal maintenance
- System measures clean or dust-bearing gases at temperatures between 600°C to 3,000°C
- Sensor cabinet uses a soft connection to communicate with a SCADA system or OPC server
- Sensor cabinet is NEMA 4 rated, climate controlled, and suitable for indoor / outdoor installation

OPTIONS

- Optional direct on-duct measurement in place of remote-mount camera
- Purge system to blow dust out of direct-mount lens assembly



SYSTEM VERIFICATION

- System operation is verified prior to shipping. Methods of verifying the temperature after installation are available on an industry-specific basis.

DESCRIPTION

The temperature sensor optically measures gas temperatures in industrial processes. The passive non-contact sensor is designed to operate on clean or dusty gases and in harsh environments where other measurement systems do not survive. Potential industries include steel making and cement making, metallurgical smelting, petroleum refining, chemical production, and power generation.

The sensor consists of one optical remote lens mounted up to 30m away from the target, optical fibers, and a sensor cabinet. Alternatively, the lens may be mounted at the process duct using a direct-mount assembly. A nitrogen purge system is also available for the direct-mount option.

The sensor cabinet contains the optical sensors and industrial processor. It is a NEMA 4 climate controlled cabinet suitable for outdoor mounting.

For temperature measurement in hot and dusty applications, contact Nova Analytical Systems or Tenova Goodfellow.

SPECIFICATIONS

Tenova reserves the right to specification changes which may occur with advances in design without prior notice.

Description	
Method of Detection:	Optical sensor
Range Available:	600°C to 3,000°C
Reading Resolution:	1°C
Accuracy and Repeatability:	±10°C (may depend on specific application)
Sensor Cabinet Environment:	-10°C - 50°C (14°F - 122°F)
Size and Weight:	Main Cabinet: 30" H x 24" W x 12" D @ approx. 50lbs (76 x 60 x 30cm @ 22kgs)
Power:	115VAC 60Hz (220VAC 50Hz available)
Output Options:	Ethernet connection, communication by OPC protocol
Alarms:	Optical failure alarm communicated by OPC protocol

Tenova Goodfellow Inc. is the Centre of Excellence for process control technology within the Tenova Iron & Steel Division. As world leader in real-time off-gas based process control, Tenova Goodfellow offers extractive sampling systems with data acquisition and process model/analysis and control. Through award-winning products such as the EFSOP® system, iEAF®, iBOF®, and others, Tenova Goodfellow offers dynamic control and efficiency improvements for high intensity industrial processes. Better process optimization, reduced costs, improved safety, and environmental benefits for greater competitiveness are just some of the advantages that our clients enjoy.

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