

# Do your exhaust gas sensor tips start out looking like this...



# and end up prematurely looking like this?



## Eliminate premature failures with Conax Spring-Loaded Exhaust Gas Sensors



Standard exhaust gas sensors in 7F and 9F class turbines are at risk of premature failure due to vibrations caused by gas flows, input vibrations and thermal expansion mismatch. Conax Technologies has developed the solution.

Our patented Spring-Loaded Exhaust Gas Sensors have a high temperature compression spring that is inserted between two spacer tubes to dampen vibrations and keep the temperature sensor tip seated within the radiation shield.

### Available exclusively from Conax

Conax's Spring-Loaded Exhaust Gas Sensors are interchangeable with OEM parts and tested to OEM specifications.

When used in 7F and 9F class turbines, these sensors have proven to significantly increase sensor life and provide thousands of hours of field operation without failures.

Available in either the hermetic sealed post design or hermetic circular connector design.

### Find out more

To learn how Conax Spring-Loaded Exhaust Gas Sensors can eliminate premature sensor failures in your facility's 7F and 9F turbines, call us at **+1 716 684 4500** or visit [conaxtechnologies.com/springloaded](http://conaxtechnologies.com/springloaded).

### These exclusive Conax sensors are:

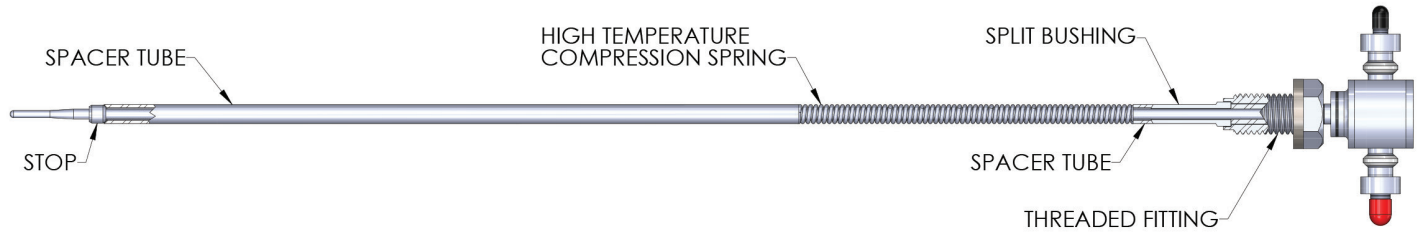
- Interchangeable with OEM parts
- Tested to OEM specifications
- Proven to significantly increase sensor life
- Proven to provide thousands of hours of field operation without failures
- Designed to ensure proper installation every time
- Stocked in-house for quick turnaround
- Backed by expert technical support



**Ideas. Solutions. Success.**

## Dimensional Features

## Conax Enhanced Hermetic Exhaust Gas Thermocouple



## Specifications

### Calibration:

- Type K, Chromel Alumel®
- $\pm 0.4\%$  accuracy (special limits of error)
- Meets the requirements of ASTM E585 and ASTM E608

### Insulation Resistance:

- $1 \times 10^9$  ohms @ 500 VDC

### Time Response:

- 2.9 seconds

### Hermetic Seal:

- $1 \times 10^{-6}$  ssc/sec He for the entire thermocouple

### Sheath Diameter:

- 0.240" over sheath and spring

### Environmental Ranges:

- -20° to 700°F (-29° to 371°C) at the termination
- -20° to 392°F (-29° to 200°C) for the cable
- 100% humidity for the entire thermocouple

### Qualification testing:

- Vibration testing to 10 million cycles of simulated vibrations on turbine operation
- Thermal cycling the measuring tip 20,000 times between 1220°F (660°C) and room temperature
- Thermal cycling the hermetic terminal head 600 times between 700°F and -65°F (370°C and -54°C)

### Precise installation features:

- Stop at the sensing end of the thermocouple ensures it seats firmly into the radiation shield, allowing the junction to be in the proper position for optimum response time and accurate temperature measurement
- Bushing material reduces possibility of seizure in the radiation shield. Spring maintains sensor tip contact.
- Ceramic insulated junction box at the cold end uses two different sized studs or a keyed 2-pin circular connector, guaranteeing proper installation every time

### Related Products:

- Wheelspace & Exhaust Gas Thermocouple—Model 351A3488 Bulletin 6052
- Exhaust Gas Thermocouple—OEM Model 362A1102 Bulletin 6054
- Bearing Sensors: Bulletin 6035
- Hermetic Wheelspace Thermocouples—Model 361A2289 Bulletin 6053
- Bearing Sensor Wire Seals: Catalog 5001
- RTDs/Thermocouples: Bulletin 6002
- Frame 5, 6, 7 Retrofit Exhaust Gas Sensors Bulletin 6064

### Also Available from Conax Technologies:

- Radiation shields—Model 362A1344Pxxx
- Mating cables—Model 361A2327Pxxx
- 2 pin circular connector cables—Model 362A3345Pxxx

For more information about Conax Technologies, visit [conaxtechnologies.com](http://conaxtechnologies.com).

2300 Walden Avenue, Buffalo, New York 14225  
+1 800 223 2389 (P) | +1 716 684 7433 (F)  
[Conax@ConaxTechnologies.com](mailto:Conax@ConaxTechnologies.com)  
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