

# Wheelspace Thermocouples

361A2289



## Product Features and Benefits

- Superior quality
- Hermetically sealed for high accuracy and long life
- Simple quick installation saves time
- Talented technical support
- Parts are usually in stock to provide quick turnaround time

Conax Technologies' hermetically designed wheelspace thermocouple has been field tested and proven to be a very reliable product for Frame turbine applications. Our wheelspace thermocouple has been subjected to rigorous qualification tests including vibration testing to 10 million cycles of simulated on turbine operation, thermal cycling the measuring tip 20,000 times between 1220°F (660°C) and room temperature, and thermal cycling the hermetic terminal head 600 times between 700°F and -65°F (370°C and -54°C). Our wheelspace thermocouple has passed all OEM qualification tests and meets all design specifications required by the OEM. This thermocouple is a direct replacement for all other wheelspace thermocouples on Frame turbines, whether you are replacing or upgrading your equipment, and can be purchased directly from Conax Technologies lowering your total costs.

## Superior Quality

These type K ungrounded thermocouples are manufactured using conductor materials meeting special limits of error (+/- 0.4% accuracy) for improved accuracy. All specification qualified wheelspace thermocouples are manufactured per ASTM standards utilizing the highest purity insulation materials yielding superior insulation resistance at elevated temperatures. In our factory, Conax thermocouples are manufactured and tested at various points during the manufacturing cycle to give you the highest possible level of quality. The testing includes helium leak testing of sealing points, calibration, thermal shock and insulation resistance.

## Precise Installation

Conax wheelspace thermocouples are designed to ensure proper installation every time and the installation is easy. The thermocouple is inserted into a guide tube until it is bottomed out allowing the junction to be in the proper position to provide you the optimum response time and accurate temperature. The cold end features a ceramic insulated junction box using two different size studs to guarantee proper installation every time. It also enables a convenient, stress-free orientation of the thermocouple junction box as it relates to the mating cable by using a compression fitting.

## Technical Sales Support

Whether you are upgrading or replacing your wheelspace thermocouples, Conax Technologies' Technical Team can help you solve your problems. We can help you upgrade from using the one piece design such as the 302A4010Pxxx or 351A3488Pxxx or if you just need to replace a 361A2289 wheelspace thermocouple. Call our inside Sales Team at +1 716 684 4500 and you'll get the support you need to make the right choices.



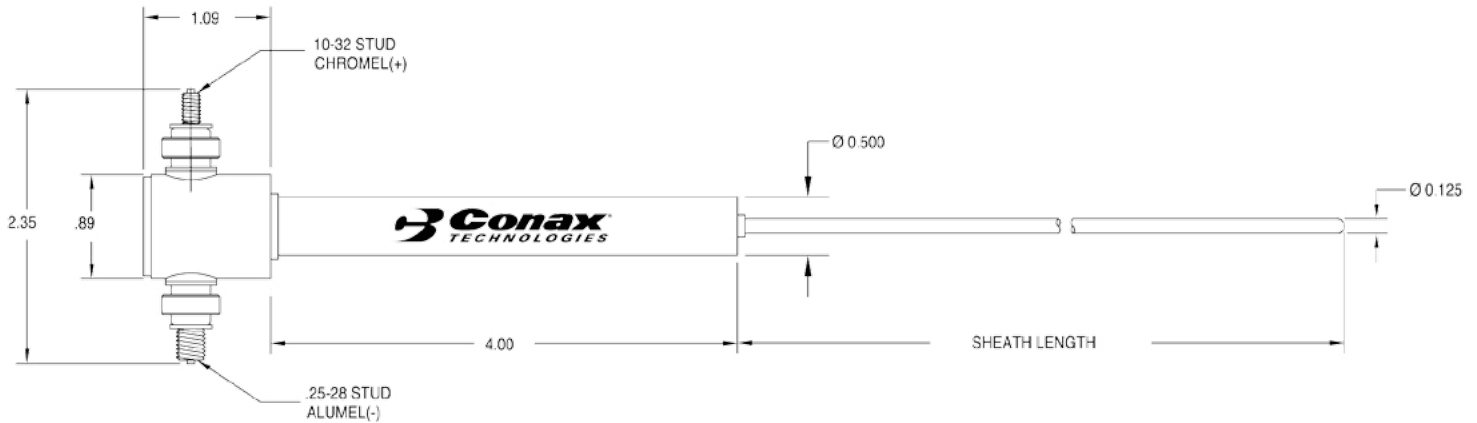
Ideas. Solutions. Success.

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## Dimensional Features—Hermetic Wheelspace Thermocouple Model 361A2289



### 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 @ 50 VDC

#### Time Response:

Tip Diameter	Time
0.062"	1.7 seconds
0.089"	2.9 seconds
0.125"	4.0 seconds

#### Hermetic Seal:

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

#### Sheath Diameter:

- 0.125" (3.2mm)

#### Environmental Ranges:

- $-20^\circ$  to  $700^\circ\text{F}$  ( $-29^\circ$  to  $371^\circ\text{C}$ ) at the termination
- $-20^\circ$  to  $392^\circ\text{F}$  ( $-29^\circ$  to  $200^\circ\text{C}$ ) for the cable
- 100% humidity for the entire thermocouple

#### Related Products:

- Enhanced Exhaust Gas Sensors—Bulletin 6054E
- Hermetic Exhaust Gas Thermocouple—Model 351A3488 Bulletin 6052
- Hermetic Exhaust Gas Thermocouple—Model 362A1102 Bulletin 6054
- Bearing Sensors: Bulletin 6035B
- Bearing Sensor Wire Seals: Catalog 5001B
- RTDs/Thermocouples: Catalog 5005

#### Also Available from Conax Technologies

- Mating cables—Model 361A2327Pxxx

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

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