SCHULTZ CREEHAN

Schultz-Creehan Technology by Aeroprobe Corporation

AEROPROBE CORPORATION

ENGINEERING FLOW MEASUREMENT SOLUTIONS

Inconel Multi-Hole Probes for High-Temperature Flows

- **Fluid Flow Applications to 900°C**
- **Determine Pt, Ps, Flow Angles, Flow Velocity Components**
- **Application Flow Speeds from 5 m/s to Mach 1.0+**
- **Probe Geometry Customizable, Outer Diameters 3+ mm**
- **Contact Aeroprobe for Details and to Discuss Your Application**

Five-hole Inconel Aeroprobes (3 mm OD) for use at temperatures up to 900°C. Developed for vane-mounting in jet turbines, they also provide flow measurement solutions for other high-temperature applications. Note that the surface oxidation and discoloration in the picture is normal and was sustained during probe testing. This does not affect the calibration of the probes. Other than the ability to sustain higher temperatures, these probes have the same capabilities as conventional Aeroprobes (see next page for more information).

AEROPROBE CORPORATION
1700 KRAFT DRIVE, STE 2413
BLACKSBURG, VA 24060
PH: 540/ 951-3980
FAX: 540/ 951-8618
WEB: WWW.AEROPROBE.COM
EMAIL: SALES@AEROPROBE.COM

High-Temperature Multi-Hole Aeroprobe Specifications

Geometry and Construction	
Probe Geometry	Straight
Number of Holes	3, 5
Tip Geometry	60° Conical (3HP, 5HP)
Tip Diameter	4.8 mm, 3.2 mm
Material	Inconel, Ceramic/Metallic
Pneumatic Connection	Custom, Depending on Temperature at Connection. Typically Inconel Tubing OD 0.5 – 1 mm.
Mounting	Custom, Depending on Application, Typically a Cylinder with Flat
Probe Reference	
Straight Probe	Roll Reference Flat
Bent Probe	N/A
Flow Temp. Limits	0°C – 900°C (Inconel), 0°C – 1250°C (Ceramic/Metallic)

Measurement Accuracy (w/Aeroprobe Calibration)	
Flow Angles	< 0.4°
Total Flow Velocity	< 0.8%*
Required Auxiliary Data**	Reference Pressure, Total Temperature
Flow Angle of Receptivity	±15° (3HP, One Angle), 60° (5HP, Cone)
Calibration Flow Speeds	5 m/s to 1000 m/s (Mach = 3.0)
Pressure Data Reduction	Polynomial Fit (3HP), Multiprobe Software (5HP)
Frequency Response	Low, Best for Determining Time-Averaged Flows, Time Lag Available Upon Request
Media	Non-Reactive Gases, Water; Other Media Possible – Contact Aeroprobe
Temperature Measurement	N/A, Contact Aeroprobe for Development Possibilities
*Utilizing 0.1% Accurate Pressure Sensors Properly Rated for Flow Speed	
**For Most Accurate Compressible P-V Reduction	

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Blacksburg, VA 24060
Ph: 540/ 951-3980
Fax: 540/ 951-8618
Web: www.aeroprobe.com
Email: sales@aeroprobe.com