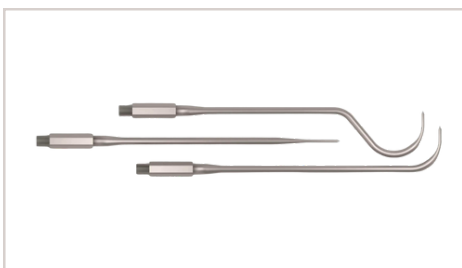# DATA SHEET
Pitot Static Probe

PRODUCT NAME

Pitot / Prandtl Probe

TYPE

Airspeed Probe

Fig. 1   Close-up of the Pitot-Static head with static pressure ring, drainage and heater

Fig. 2   Examples of customized probe geometries and lengths

DESCRIPTION

Robust Pitot-Static Probe for Velocity Measurements

Our *Pitot-Static Probes* provide precise airspeed and pressure measurements for UAV, helicopter and aircraft applications. Their one-piece construction ensures exceptional robustness and consistent performance, even under demanding thermal or dynamic conditions. Optimal heat flux from the heater to the probe tip avoids icing and a drainage port avoids blockage of the pitot port by water.

All probes can be fully tailored in length, material, head geometry, and mounting style to match the requirements of your specific application.

GENERAL

Dimensions	185 mm standard, custom lengths possible
Weight	<80 g (316L) <55 g (Al)
Min. tip diameter	Ø 3 mm (non-heated) Ø 8 mm (heated)
Material	Standard: stainless steel Custom: titanium, inconel, high-temperature stainless steel
Mounting	Square, hexagonal, flattened cylinder or custom
Head geometry	Elliptical
Connections	Standard 1.04 mm (0.040 in.) pressure tubes with bulge

ENVIRONMENTAL CONDITIONS

Temperature	-60 … 600°C
Operating medium	Air

MEASUREMENT

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Velocity range	Mach 0 - 0.9
Velocity accuracy	< 2 m/s or < 1.0 %, whichever is greater

POWER AND HEATER

Our *Pitot Static Probes* can be equipped with a heater system featuring precise temperature control to prevent the accumulation of ice. This ensures accurate and reliable performance in low-temperature environments and high-altitude applications.

The heater is governed by an automatic closed-loop control system. Heating is activated when the internal temperature drops below a defined lower threshold and deactivated once the temperature exceeds a defined upper limit, maintaining a stable thermal environment without user intervention. The demand temperature can be set by the user through communication channel.

HEATER

Probe head heater	Up to 48 W
Heater Activation Temperature Threshold	< 7° C (default)
Heater Deactivation Temperature Threshold	> 7° C (default)

RECOVERY FACTOR
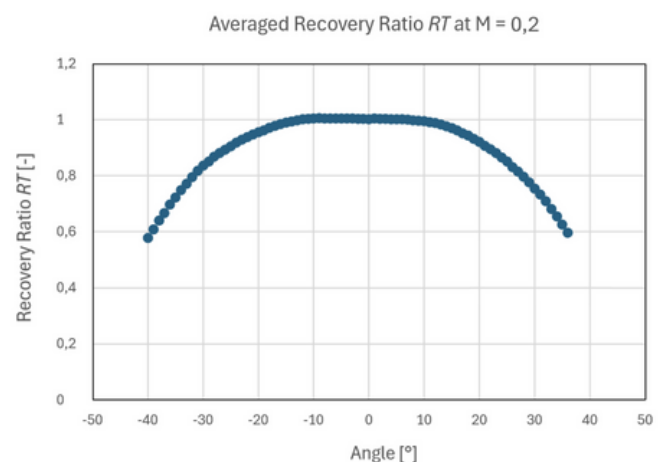
Fig. 3 Recovery ratio with a flow Mach number of Ma = 0.2

VECTOFLOW