



# 3/4 INCH [19.05 MM] OD TRANSDUCER, ASIC HYBRID SPB102B3-XX-YYY

Part Number Coding: **A A A** **BBB** - **XX** - **YYY**  
 Family Options Pressure Temperature

## FEATURES AND BENEFITS

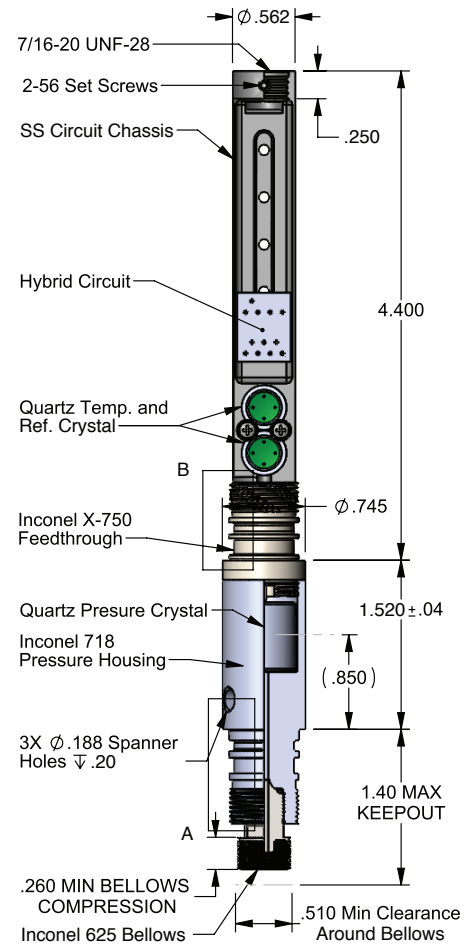
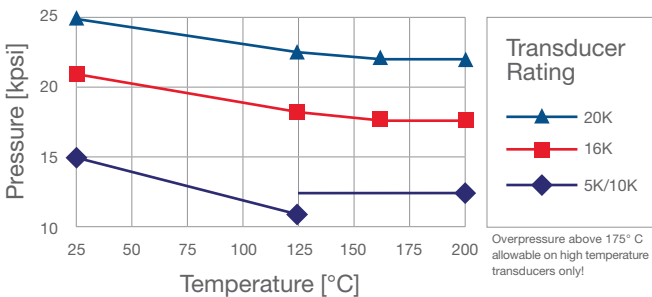
Pressure range: . . . . . 0 - 25,000 psi [0 to 1725 bar]  
 Operating temperature range: . . . . . -40° to 225°C  
 Drift at max temperature and pressure: . . . . . 0.02% FS / year  
 NIST Traceable Calibration  
 External pressurization capable  
 Fast transient response

## MECHANICAL SPECIFICATIONS

Proof Pressure. . . . . 25,000 psi (1725 bar)  
 Overpressure without sensor damage . . . . . Varies with temperature; see plot below  
 Fluid Filled Non-toxic engineered sebacate or mineral oil; depends on temperature  
 Mechanical Shock / Vibration . . . . . See Quartzdyne document **E20-032**  
 Weight . . . . . 11.5 oz. [326g]

## OVERPRESSURE LIMITS

For Quartzdyne® Pressure Transducers

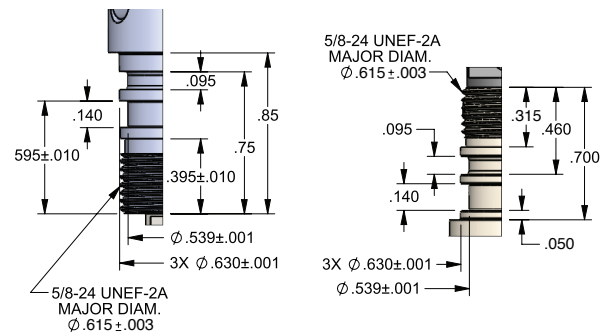


## ELECTRICAL CONNECTIONS

**Output:** Frequency

**Wire:** 28 AWG Solid Core, TFE ET (Ø0.027" [0.69mm]) 18 inch [450mm] flying leads

Color	Description	Color	Description
Blue	VCC (5.5V DC max)	Purple	Pressure Signal
White	Reference Signal	Yellow	Temperature Signal
White w/Black stripe	Ground		



## TOOL DESIGN CONSIDERATIONS

This transducer allows you to construct a 0.75 inch [19mm] or larger diameter tool. When designing this transducer into your tool, please consider the following items:

1. Although the transducer includes grooves for o-rings, we do not recommend using o-ring seals for more than a few days' time. The most reliable seal is an electron beam (EB) weld to the transducer. We recommend that your electronics housing ID is  $0.584 \pm 0.015$  inches. This improves its thermal response; more importantly, this is the way we calibrated it at Quartzdyne.

2. This transducer comes standard with a connector, secured to the side of the transducer. To remove the connector, follow electrostatic discharge (ESD) precautions.
3. If you thread into the end of the circuit carrier, allow for a 0.125 inch [3.2mm] minimum clearance hole for the output wires. The edges of this hole should be generously rounded to prevent insulation damage, and we recommend insulating the bundle in a piece of tubing (i.e., FEP Teflon heat shrink.)