

# **DXB012-XX-YYY** 3/4 INCH OD TRANSDUCER, ASIC HYBRID

THE LEADER IN DOWNHOLE PRESSURE

#### FEATURES AND BENEFITS

- » Pressure range: 0 to 35,000 psia [0 to 2415 bar]
- » Operating temperature range: -40° to 225°C
- » Drift at max temperature and max pressure: 0.02% FS / year
- » NIST traceable calibration
- » External pressurization capable
- » Fast transient response

#### **MECHANICAL SPECIFICATIONS**

Proof Pressure	35,000 psi (2415 bar)	
Overpressure without sensor damage	Varies with temperature; see plot below	
Fluid Filled	Non-toxic Paratherm heat transfer fluid	
Mechanical Shock / Vibration	See Quartzdyne document E20-032	
Weight	11.5 oz. [326g]	



## ELECTRICAL CONNECTION

#### **OUTPUT:** Digital I<sup>2</sup>C

WIRE: 28 AWG, TFE ET (Ø0.027" [Ø0.69mm]) 18 inch [450mm] flying leads

COLOR	DESCRIPTION	COLOR	DESCRIPTION
BLACK	Ground	SLATE	SCL (Clock)
BLUE	VCC (5.5V DC max)	YELLOW	A1
GREEN	SDA (Data)	WHITE	Reference Signal
PURPLE	A2		

## TOOL DESIGN CONSIDERATIONS

- 1. Circuit chassis is not designed for structural attachment. See DXB012-XX-YYY for ruggedized model.
- If attaching a secondary carrier to the end of the transducer, allow for a 0.125 inch minimum clearance hole for the output wires. The edges of this hole should be generously rounded to prevent insulation damage. Adding a piece of tubing (i.e., FEP Teflon heat shrink) to prevent wire damage is also recommended.
- 3. When utilizing a thick-walled tube to cover the Quartzdyne electronics carrier, it is recommended that the ID of the tube be 0.584 ± 0.015 inches. This design consideration will ensure that the thermal response of the transducer is similar to the response during transducer calibration at Quartzdyne. It will also ensure that the calibration remains valid. For tools that see full-scale pressure on the electronics enclosure, e-beam welding must be utilized at the pressure feedthru connection to prevent damage to the electronics, and reference crystals.

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