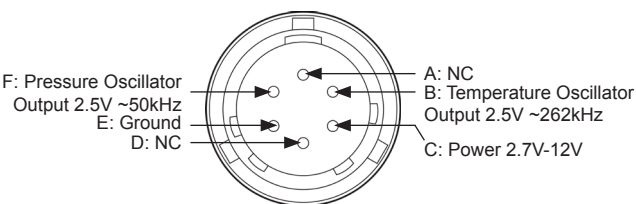
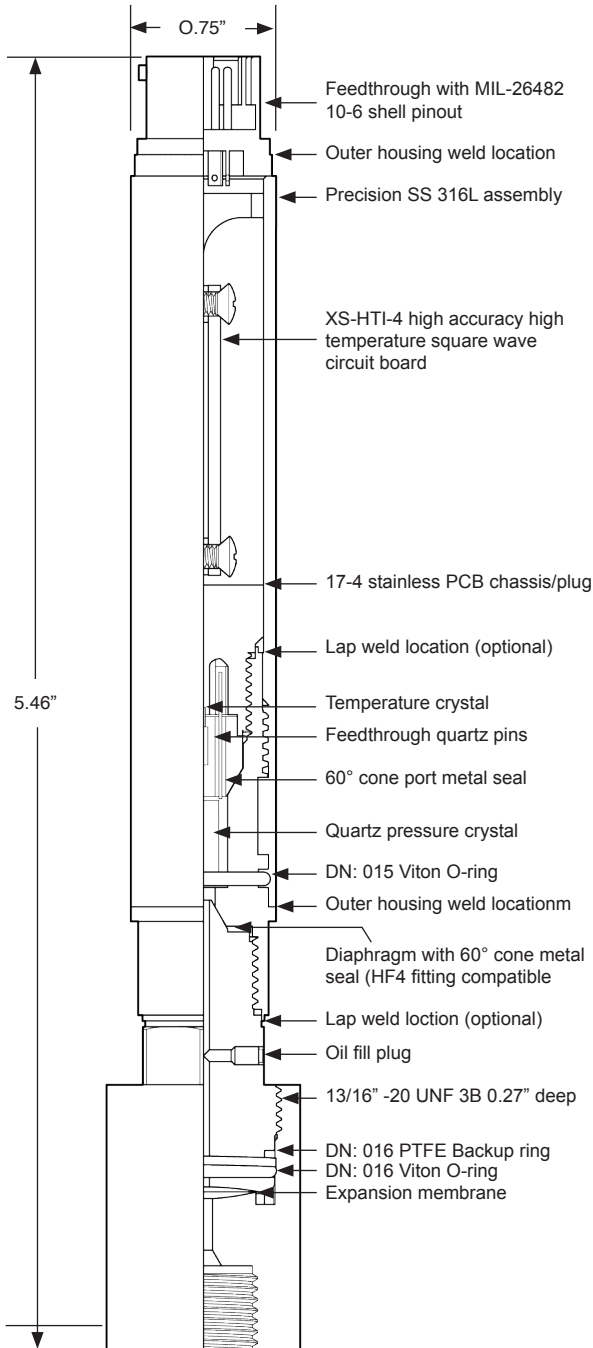


**PHASE ADVANCED SENSOR SYSTEMS  
PASSION REFLECTED THROUGH DESIGN**



**XTALX DOWNHOLE SQUAREWAVE  
QUARTZ PRESSURE SENSOR  
DSQS1-10000-170  
10000: PRESSURE RATING  
107: TEMPERATURE RATING**



**SPECIFICATION HIGHLIGHTS**

CALIBRATED PRESSURE RANGE ----- 0 to 10,000psi (0 to 690 BAR)  
 CALIBRATED TEMPERATURE RANGE ----- 25° to 170°C  
 PRESSURE ACCURACY ----- 0.05% F.S.  
 DRIFT @ MAX TEMPERATURE & PRESSURE ----- 0.05% F.S./YEAR  
 TEMPERATURE ACCURACY ----- 0.1°C  
 DRIFT @ MAX TEMPERATURE & PRESSURE ----- 0.02°C/YEAR

**MECHANICAL SPECIFICATIONS**

WEIGHT: ----- 286 ±1 grams  
 HEIGHT: ----- 147 mm (5.79")  
 MAXIMUM WIDTH: ----- 25.4 mm (1.0")  
 PROOF PRESSURE: ----- 103.4 MPa (15,000psi)

**ELECTRICAL SPECIFICATIONS**

MAXIMUM VOLTAGE RATINGS ----- -0.3 TO 13.5V DC  
 VOLTAGE SUPPLY RANGE ----- 2.7 TO 12V DC  
 CURRENT DRAW @ 25°C ----- 850 µA  
 CURRENT DRAW @ F.S. TEMP ----- 1.6 mA  
 ESD ----- ±2 kV

**SIGNAL OUTPUT SPECIFICATIONS**

PRESSURE FREQUENCY SIGNAL PIN ----- Pin F  
 PRESSURE FREQUENCY SIGNAL ----- 2.5 Vpp Square Wave  
 PRESSURE FREQUENCY RANGE ----- 45 kHz ← → 52 kHz  
 TEMPERATURE FREQUENCY SIGNAL PIN ----- Pin B  
 TEMPERATURE FREQUENCY SIGNAL ----- 2.5 Vpp Square Wave  
 TEMPERATURE FREQUENCY RANGE ----- 262 kHz ← → 264 kHz

**ADDITIONAL SPECIFICATIONS**

STORAGE TEMPERATURE ----- -65° to 170°C  
 ACHIEVABLE RESOLUTION ----- 0.002psi  
 REPEATABILITY ----- 0.05% F.S.  
 NOMINAL SENSITIVITY ----- 3psi/Hz  
 RESPONSE TIME ----- 0.1 s  
 GRAVITATIONAL EFFECTS ----- NEGLIGIBLE  
 ORIENTATIONAL EFFECTS ----- NEGLIGIBLE  
 ACCELERATION SENSITIVITY ----- NEGLIGIBLE  
 STARTUP TIME @ 25°C ----- ~220 ms  
 PEAK INRUSH CURRENT @ 25°C ----- 1.3 mA  
 STARTUP TIME @ F.S. TEMP ----- ~290 ms  
 PEAK INRUSH CURRENT @ F.S. TEM ----- 2.5 mA  
 AVERAGE LIFETIME EXPECTANCY @ 150°C ----- 2 YEARS  
 AVERAGE LIFETIME EXPECTANCY @ 175°C ----- 6 MONTHS  
 AVERAGE LIFETIME EXPECTANCY @ 210°C ----- 30 DAYS