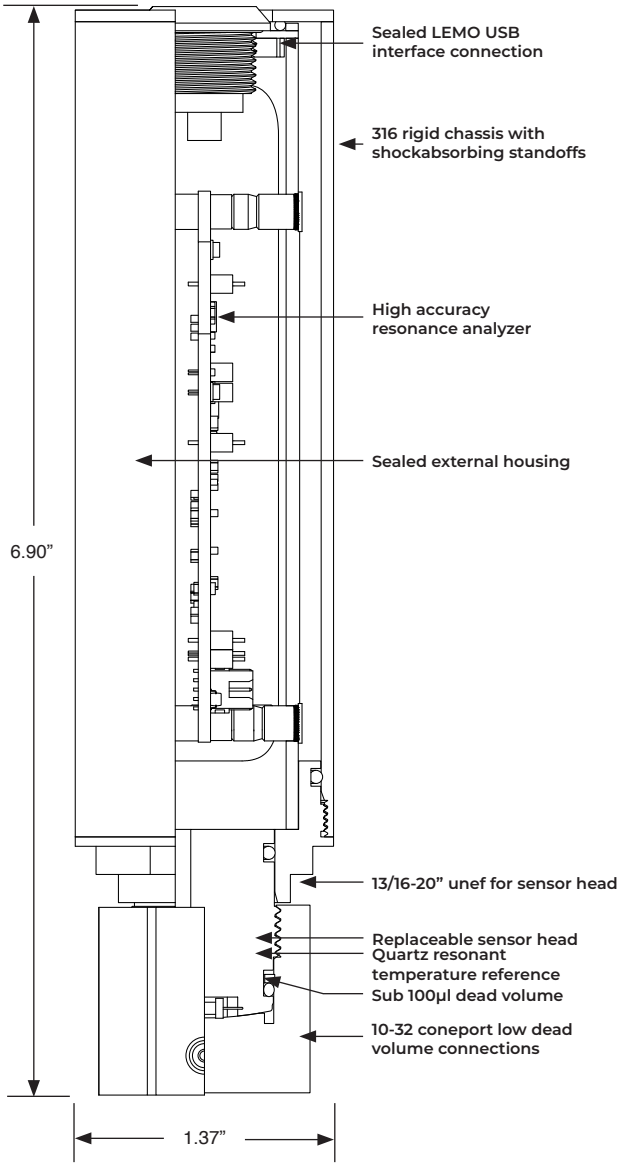
PHASE ADVANCED SENSOR SYSTEMS
PASSION REFLECTED THROUGH DESIGN

LUVD1 VISCOSITY & DENSITY SENSOR
LUVD1-10000-150
10000: PRESSURE RATING
150: TEMPERATURE RATING OF FLUID
80: TEMPERATURE RATING OF ELECTRONICS



SPECIFICATION HIGHLIGHTS

CALIBRATED VISCOSITY RANGE ---------- 0.32cP<—>30cP
CALIBRATED DENSITY RANGE ---------- 0.65g/cc<—>0.85g/cc
VISCOSITY OPERATING RANGE ---------- 0.2cP<—>30cP
DENSITY OPERATING RANGE ---------- 0.2g/cc<—>0.85g/cc
CALIBRATED FLUID TEMPERATURE RANGE ---------- 30°C<—>80°C

MECHANICAL SPECIFICATIONS

WEIGHT ---------- 325 grams
HEIGHT ---------- 200 mm (7.86”)
MAXIMUM WIDTH ---------- 25.4 mm (1.0”)
MAX PRESSURE ---------- 103MPa (15,000psi)
DEADVOLUME ---------- 0.1 mL
HOUSING MATERIAL ---------- 316L STAINLESS / HASTELLOY C-276

ELECTRICAL SPECIFICATIONS

ELECTRONICS TEMPERATURE OPERATING RANG -- -40°C<—>80°C
TEMPERATURE ACCURACY ---------- 0.1°C
VOLTAGE SUPPLY RANGE ---------- 3.5 V<—>6 V
CURRENT DRAW @ 25°C ---------- 100 mA
CURRENT DRAW @ 85°C ---------- 150 mA
OUTPUT ---------- USB 2.0
ESD ---------- IEC 61000-4-2 ±15 kV

FREQUENCY SPECIFICATIONS

NOMINAL REFERENCE FREQUENCY ---------- 170 MHz ± 10 PPM
NOMINAL TUNING FORK FREQUENCY ----- 32.768 kHz ± 100 PPM
NOMINAL TEMPERATURE FREQUENCY ---------- 262 kHz ± 200 Hz

ENERGY STORAGE SPECIFICATIONS

INTERNAL OPERATING VOLTAGE ---------- 3.3 V
MAXIMUM CURRENT CONSUMPTION @ 25°C ---------- 100 mA
INTERNAL POWER CONSUMPTION @ 25°C ---------- <= 0.33 W
TOTAL CAPACITANCE ---------- 37.7 µF
TOTAL INDUCTANCE ----------1.5 µH
LOWEST RESISTANCE ON-BOARD ---------- 300Ω

ADDITIONAL SPECIFICATIONS

STORAGE TEMPERATURE ---------- -65°C<—>85°C
REPEATABILITY ---------- 1% of reading
PRESSURE RANGE ---------- 15,000psi
SAMPLING RATE ---------- 10 S<—>300 S
NOTE: Greater accuracy will be achieved by running at a longer sampling rate.
NOTE: Greater accuracy will be achieved by holding the sample temperature constant.