

## 1.0 Scope

- 1.1 The system shall measure pressure.
- 1.2 The system shall communicate to external devices via industry standard two-wire, 4-20 mA protocol.
- 1.3 The sensor shall fit inside 1-inch, schedule 40 and schedule 80 PVC casing or larger.
- 1.4 The system shall be delivered fully assembled and custom-sized for each well.
- 1.5 The system shall be an **Seametrics PS98i Submersible Pressure Transmitter**, manufactured by Seametrics, or approved equal.

## 2.0 Sensor Design

- 2.1 The sensor shall measure pressure.
- 2.2 Pressure measurements shall be accurate to  $\pm 0.25\%$  FSO at 20° C (static, B.F.S.L.).
- 2.3 The sensor shall be available in absolute or gauge pressure versions.
- 2.4 The sensor shall be no larger than 0.75" in diameter (0.84" for 1 psi version).
- 2.5 The sensor shall terminate with either a flat, sealed end cone, or with a 1/4" NPT inlet.

## 3.0 Cable Assembly Design

- 3.1 The cable shall be polyurethane, ETFE, or polyethylene jacketed.
- 3.2 The cable shall be vented to atmosphere, with a desiccant assembly at the well-head to prevent buildup of moisture in the vent tube, for gauge version sensors.
- 3.3 The cable shall be continuous with no splices.
- 3.4 The cable shall terminate with either
  - a) 2 wires plus shield
  - or
  - b) An M6 connector
- 3.5 The cable connection to the sensor shall be waterproof up to a pressure of at least 325 psi to prevent leakage of fluid inside the sensor housing.
- 3.6 The cable shall have a breaking strength of at least 138 lbs.
- 3.7 All connecting fittings shall be capable of supporting a working tensile load of 50 lbs.

**Acceptable sensors shall be Seametrics PS98i or approved equal.**