

ER-QPS High Temperature & Pressure Quartz Pressure Sensor For Oil & Gas

Instruction

The current diameters of the sensors are mainly four types— $\Phi 25.4$, $\Phi 22$ and $\Phi 19$, the length is different due to the pressure sensor's different models. There are two main structures, one is ER-SU series, the sensor's line outer barrel could not withstand the pressure, it needs to be installed in the inside of the downhole instrument, the advantage is facilitating outside bus line of the sensor over the line.

Ericco's ER-SU series of high temperature and high pressure quartz pressure sensors for oil and gas have the characteristics of high reliability and high precision. For decades, the international petroleum industry has always used this quartz crystal pressure gauge as the industry pressure measurement standard. The pressure sensitive element is a quartz resonator, and the output frequency changes with increasing pressure.

The sensitive element maintains the inherent high repeatability and high stability of single crystal quartz. At the same time, there is a temperature probe with a quartz resonator that can directly perform digital temperature compensation on the pressure value. The sensors provide independent pressure frequency signals and temperature frequency signals, and can calculate the temperature-compensated pressure value within the pressure and temperature measurement range. There is no DC signal processing in the sensor circuit, and no DC standard power supply is needed, and the frequency signal is directly output. It can be easily used in memory recording tools and cable recording tools, and the signal output can be adapted to the requirements of any measurement circuit.

Application

Oil, gas and geothermal well testing,

Downhole storage logging tool, wireline logging and formation tester,

Permanent downhole monitoring system, and permanent well head monitoring system,

Pressure testing while drilling.

Specifications

Series	Recommended application	O.D.
ER-QPS-26	Can be easily used for composed of the Φ 38 multi-parameter production logging, repeat formation tester. This series sensors have the same size and performance with the quartzdyne QHB series products.	Φ 25.4
ER-QPS-22	Can be easily used for make up the Φ 32, Φ 38 multi-parameter production logging tool, well test storage pressure gauge, and measurement while drilling.	Φ 22
ER-QPS-19	Can be easily used for make up the Φ 25.4, Φ 32 multi-parameter production logging tool, well test storage pressure gauge, repeat formation tester, and measurement while drilling.	Φ 19
ER-QPS-16(halt production)	Can be easily used for make up the Φ 22, Φ 25.4, Φ 32 multi-parameter production logging tool.	Φ 16
ER-QPS-15(halt production)	It can be installed in limited space, specially designed for bad environment and can reach high standard requirements.	Φ 15

The above series are all have the 150 °C, 200°C temperature and 60Mpa, 80Mpa, 100Mpa, 140Mpa, 175Mpa pressure products.

The ER-QPS-QUP can be engaged with Logging, Formation Tester, Permanent and Drilling

Recommended Operating Conditions

Supply Voltage (Vcc) 3.2-5V

Operating Current (Icc) 2MA (No Load condition with REF)

Output Signals DC Coupled HC CMOS

Temperature Range 150C/175C

Pressure Range 70Mpa/100Mpa /140Mpa/160Mpa

Weight 195g

V Red, PS +4-5V

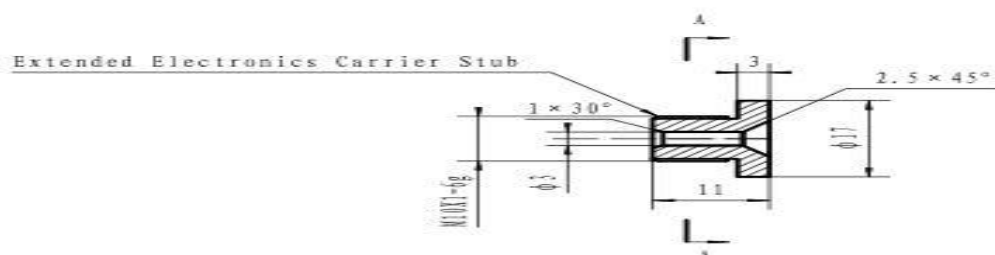
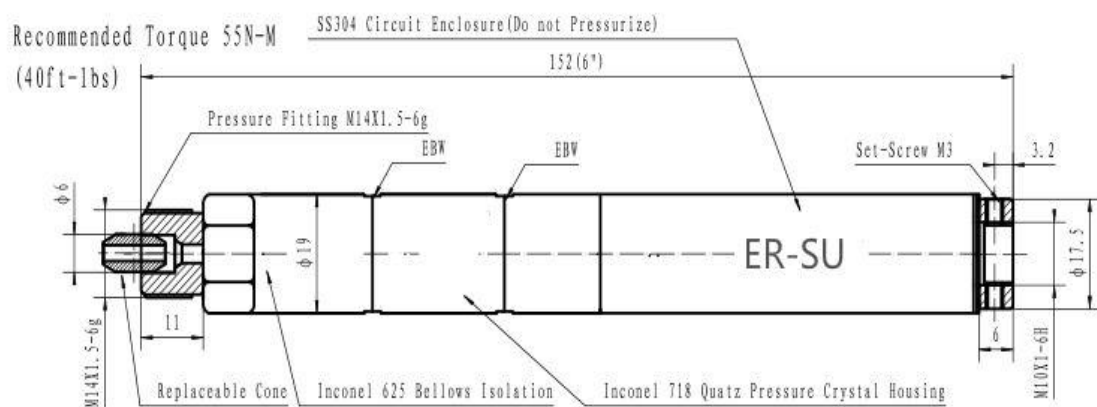
G Black, Ground

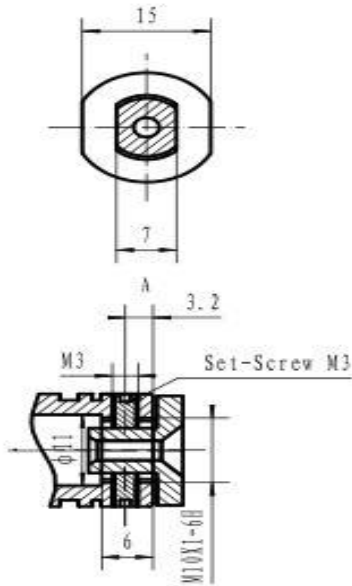
P Green, Pressure

T Yellow, Temp

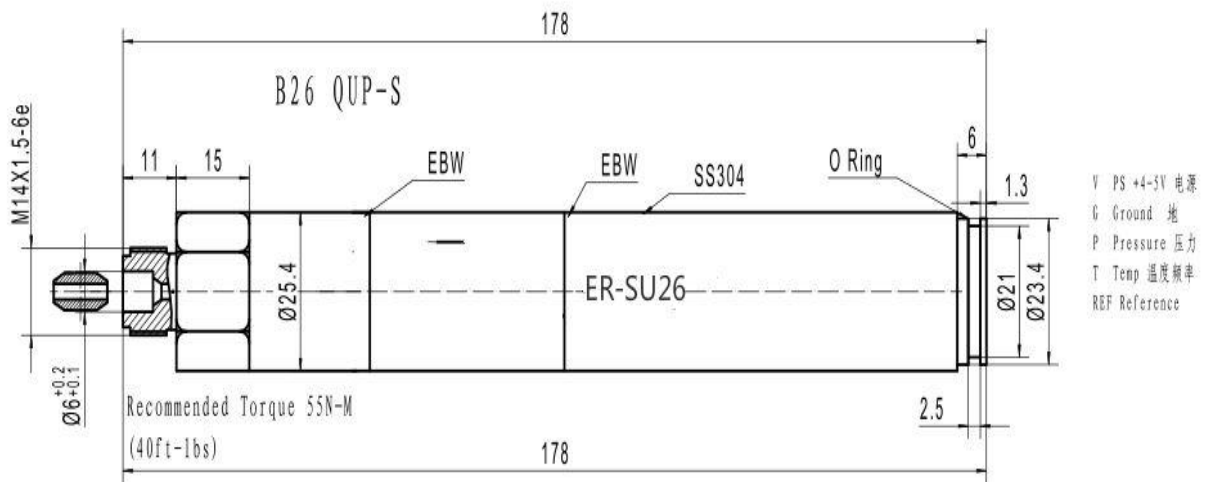
REF Blue (Grey), Reference

ER-QPS-19:





ER-QPS-26:



- V PS +4-5V 电源
- G Ground 地
- P Pressure 压力
- T Temp 温度/频率
- REF Reference

