

DOWNHOLE FLOWMETER with SINGLE WHU



Real-time or autonomous measurement of gross rate, water holdup, pressure, and temperature downhole where the chain of tools is suspended under an artificial lift above each perforation interval.

| Spinner Flowmeter | |
|-------------------------------|--|
| Threshold | 0.1 ft/min (1.8 m/hr) |
| Detectable flowrate range | 19-7,550 bpd (3-1,200 m ³ /d) |
| Bi-directional measurements | Yes |
| Impeller OD | 2.4 in (60 mm) |
| Arms OD | 3.2 in (80 mm) |
| Capacitance sensor | |
| Water cut | 0-100% |
| Accuracy | ±1% |
| Pressure gauge | |
| Resolution | 0.015 PSI |
| Accuracy | ± 0.02% |
| Type | Sapphire |
| Temperature gauge | |
| Resolution | 0.003°C |
| Accuracy | ± 0.01°C |
| Type | Platinum/Exposed |
| General specifications | |
| Maximum operating pressure | 11,600 PSI (80 MPa) |
| Maximum operating temperature | 150°C (302°F) |
| Tool length | 3.6 ft (1.1 m) |
| Tool OD (housing) | 1.5/1.65 in (38/42 mm) |
| Tool weight | 12.8 lbs (5.8 kg) |
| Connections | 15/16 SR |
| H ₂ S resistance | 6% standard (25% optional) |
| Operational time | 388 days (1 sec sample rate) |
| Sampling rate | 0.25-125.0 sec |
| Built-in memory | 128 Mb |
| Surface read-out / Memory | Both |

Applications

- Accurate zonal fluid flowrate and phase measurement
- Pressure and temperature measurement at high accuracy
- Reserves allocation

Advantages

- High accuracy WHU module
- Wide range of flow rate measurement
- Bi-directional spinner for crossflow determination
- Compact design
- Versatile and cost-effective solution
- Integration to SCADA or fully autonomous

