

TECHNICAL DATA SHEET

CFSM

Continuous Flowmeter Spinner

The Continuous Flowmeter Spinner (CFSM) provides high resolution, low friction, flow measurement for multiple applications, well fluids and flow rates. It is run at the bottom of the toolstring and different spinner sizes are available to optimise the measurement and enable passage through completion restrictions.

The ruggedised design of the spinner assembly and the wide operating range, makes this spinner suitable for a wide range of well and fluid conditions.

Each model has a different size housing and impeller, and should be chosen to suit the well completion and flow regime.

APPLICATIONS:

- Flow profiling in complex well completions and flow regimes
- Ruggedised spinner housing protects against debris.
- Coiled Tubing operations - ruggedised spinner protection
- Production evaluation, injection evaluation and leak detection

BENEFITS

- Accurate flow determination from high resolution measurements
- Low start-up friction and inertial mass enabling resolution of small flow changes
- Ruggedised design for use in wells containing high solids
- Deployable on Slickline, Electric line, Coil Tubing or Tractor
- Suitable for all well deviations, including horizontal

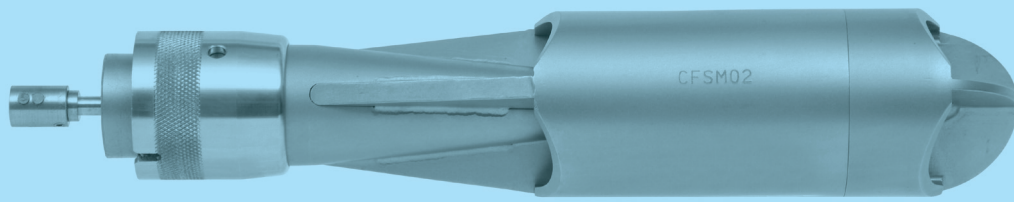


Image courtesy of GE oil & gas

Specifications

| | CFSM01 | CFSM02 | CFSM03 |
|------------------------|---|------------------|------------------|
| Temperature rating | 350°F (177°C) | | |
| Pressure rating | 15,000 psi (103.4 MPa) | | |
| Shroud diameter | 1 11/16 in (43 mm) | 2 1/8 in (54 mm) | 3 1/8 in (79 mm) |
| Tool length | 8 in (203 mm) | | |
| Tool weight | 1.7 lb (0.77 kg) | | |
| Spinner threshold | Water: 5 ft/min (0.025 m/s) Light Oil: 6 ft/min (0.030 m/s) Heavy Oil: 8 ft/min (0.040 m/s) Gas: 10 ft/min (0.050 m/s) | | |
| Maximum fluid velocity | 2,500 ft/min (12.7 m/s) | | |
| Materials | Corrosion resistant throughout | | |