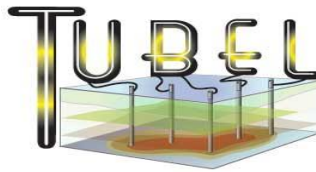


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PRODUCT DATASHEET

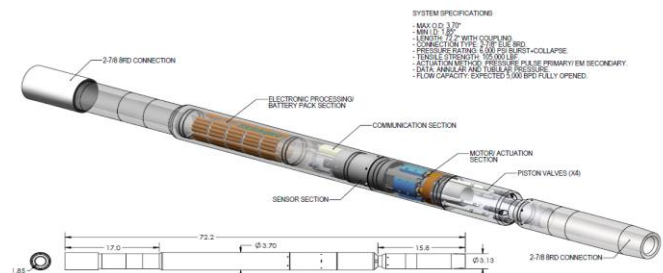
Wireless Downhole Through Tubing Flow Control

KEY FEATURES

- **Wireless Communications**
- **Individual Control of 4 Ports**
- **All Electric Operation**
- **Slickline Deployment**
- **Sapphire and strain pressure and temperature sensors**
- **No need to pull Tubing**

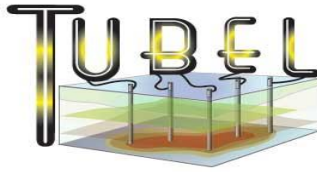
APPLICATIONS

- **Control of Well Flow**
- **Multilateral Control**
- **Injector Well Control**
- **Choke Flow**
- **Optimize Production**



The Electrically Operated Flow Control Module was developed to provide a system capable of optimizing the production to increase the life of wells. The flow control system can also be deployed in injection wells to equalize the flow into the formations. The system allows for data and commands to be communicated between the surface and downhole. The Electric Downhole Flow Control Tool can be used for multi zone applications in wellbores. The new system provides remote communications and actuation capabilities to control the movement of fluids from inside the pipe to the reservoir or from the reservoir to the production pipe. The system is also able to choke the flow for production optimization. The system uses a wireless communications technique for command transfer from the surface into the well. The system continued to work in the wellbore for the life of the battery at approximately 3 years.

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Specifications

	Internal Batteries
	4 million samples

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SPECIFICATIONS

Wellbore Size: 4-1/2" Production Pipe

Flow Control Module

Pressure Rating: 6,000 psi
Temperature Rating: 125°C
Dimensions: Diameter 3.7 inch OD and 1.85 inch ID
Length 6 ft
Flow path 4 holes Max

Communications Method: Pressure pulses & wireless electromagnetics

Power: 6 Volts DC for the batteries
5 milli Amps when motor off and 100 milli Amps when motor is on

Useable Lifetime: 4 years at rated temperature

Duty Cycle for Flow: One valve movement per month

Materials (flow wet): AISI 4140 22Rc max and/or 17-4 or equivalent

Materials (long term sealing): Tungsten Carbide

Surface System

Power 24 Volts DC @ 2 amps max
Communications 1,200 baud 2 way communications
Interface USB to PC
WAN