Tool Specification

i-Con

The i-Con™ monitoring sub is a robust tool for gathering and understanding dynamic data recorded during well operations.

This compact, memory-based monitoring sub is equipped with an electronics package consisting of sensors, batteries, and memory for use in coiled tubing and drillpipe operations. Traditionally , the gathering of precise mechanical downhole dynamic data has been limited to the use of MWD tools during drilling operations. In most well operations during completions or intervention, the same downhole data would provide valuable input for operational verification, information, and diagnostics. The i-Con has drillpipe connections and a full-bore ID to ensure seamless integration into most work-string setups. The intelligent sub records tension, compression, torque, temperature, pressure, vibrations, and acceleration where it matters—downhole.

Once the i-Con has been retrieved from the hole, the data can be downloaded from the easily available data port. Downhole data can then be investigated and compared with surface measurements to provide improved understanding and learning.

Features

- Full-bore, short length, and robust construction
- Configurable sampling rates
- Cost effective
- No surface rig-up required

Benefits

- No flow restrictions and minimum interference with operations
- Possible to fine-tune data quality or extend logging period
- Suitable as surveillance device in most operations
- Limited footprint and low risk

Applications

- Installation of liner and lower completions
- Torque and drag model verification
- Fishing operations
- Plug setting and retrieval
- Shifting tool operations
- Cleanout operations
- Other critical drillpipe interventions
- Slot recovery operations
- Plug and abandonment operations

i-Con

	Technical data							Measuring range				
	Length in. (mm)	OD in. (mm)	ID in. (mm)	Tensile klbf (ton)	Pressure[1] psi (bar)	Torque lb-ft (N-m)	Threads	Tensile klbf (ton)	Compression klbf (ton)	Pressure psi (bar)	Temp. °F (°C)	Torque lb-ft (N-m)
L	88.43 (2.246)	5.750 (146.05)	2.250 (57.15)	422.0 (191.4)	15,000 (1,034)	26,000 (32,250)	Top: XT39 Box Bottom: XT39 Pin	150.0 (68.0)	150.0 (68.0)	15,000 (1,034)	266 (130)	15,000 (20,300)
XL[2]	121.10 (3.075)	7.600 (193.00)	3.000 (76.20)	844.0 (382.8)	19,400 (1,337)	79,210 (107,400)	Top: XT57 Box Bottom: XT57 Pin	480.0 (217.7)	480.0 (217.7)	19,400 (1,337)	266 (130)	60,000 (81,350)

[1] For combined loading working envelope, contact NOV Completion Tools
[2] Additional configurations available up request; consult our Engineering team