

Mud Flow Sensor

Realizing that accurately measuring the level of drilling fluid flow through the mud return line is crucial for drillers monitoring the drilling fluid balance in the wellbore, Cameron has developed a new, state-of-the-art mud flow sensor to increase reliability and provide the accuracy the market needs.

While several different types of sensors have historically been used for measuring the flow rate of drilling fluid through the mud return line, they have proven to be problematic for drillers and require frequent maintenance. Among these include paddle flowmeters featuring a mechanical paddle that rises and falls with the level of drilling fluid in the mud return line, and non-contact radar level sensors that transmit a radar pulse that is reflected off of a surface of the drilling fluid flowing in the mud return line to determine the amount of fluid flowing through the mud return line. Issues with paddle flowmeters are often noted on the paddle arm and bowl. Rocks and cuttings are constantly damaging the paddle over time and in the end, the bowl disintegrates and ends up in the shakers. As a result, the mud loggers do not have verification on how the paddle is performing since the paddle arm still points in a downwards position and floats with the mud and seawater stream. The main problem associated with non-contact radar level sensors is condensation of mud and seawater.

Fortunately, Cameron’s new mud flow sensor provides the solution the market has been waiting for; offering increased reliability and accuracy, while decreasing maintenance. The mud flow sensor was created and tested over time on several offshore rigs. By combining the feedback received from each rig, the current design was born. Cameron’s new mud flow sensor has been proven to combat moisture and condensation by blowing a minimum of 2 bars of compressed air pressure (self-regulated) from its nozzle, and functions well without regular maintenance.

Main Features:

- New interface is easily mounted; replaces existing set up by utilizing the flange welded on the pipe
- Assembly can be built in any location where mud flow sensors and paddles are located
- Specified calibration program for the radar sensor
- Self-regulated air pressure
- Auto-calibration of sensors provides increased reliability while minimizing maintenance



Mud Flow Sensor Technical Specifications

Technical Specifications	SI	Imperial (US)
Mud flow sensor height	725 mm	28.54"
Diameter range	165 mm	6.50"

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