

## **DIFFERENTIAL PRESSURE MODULE (DPM)**

The Dataflow Measurement Systems (DMS) Differential Pressure Module has been developed to complement its successful range of slimhole directional measurement instruments. The addition of the Differential Pressure Module provides directional drillers with both annular and drill string pressure data while drilling, enabling optimisation of downhole hydraulics and early warning of drilling problems. Other benefits include:

- **Low Cost add-on module with High Temperature Capability**
- **Provides Real-time directional survey, steering, gamma and pressure.**
- **Standard interface providing multi-sensor options. The DPM can also be readily integrated into customer hardware platforms.**
- **The DPM will provide accurate pressure information for drilling efficiency in wells which are susceptible to lost circulation, differential pipe sticking and hole collapse. Applications include underbalanced drilling**
- **Its small size enables the DPM to be run in collars as small as 2.5" providing enhanced performance in many slimhole applications.**
- **Simply connects through feedthrough sub for annular pressure.**

The DMS Differential Pressure Module runs within the DMS Drillog™ software platform providing real time directional and pressure data. Rig site data can be presented in log form by the Drillog service software.

### *Differential Pressure Module (DPM) Typical Performance Summary*

#### *Interface*

<i>Voltage Input</i>	<i>: +20 - 30v dc nominal</i>
<i>Max Power Consumption</i>	<i>: 0.75 Watt</i>
<i>Output format</i>	<i>: Volts / PSI unit</i>
<i>Instrument OD</i>	<i>: 1.2" nom</i>
<i>Instrument Length</i>	<i>: 20" max</i>
<i>Pressure Case OD</i>	<i>: 1.5" min</i>
<i>Collar Sizes</i>	<i>: 2 ½" – 9 ½"</i>
<i>Feedthrough Connection</i>	<i>: 1 ¼" x 8 Pin</i>

#### *Sensors:*

*Quartz based pressure transducers*

#### *Accuracy*

<i>Full Scale Range</i>	<i>: 0 –10,000 PSI</i>
	<i>: 0- 15,000 PSI (optional)</i>
<i>Accuracy</i>	<i>: +/- 0.1% Full Scale</i>

#### *Environmental*

<i>Operating Temperature</i>	<i>: 0 - 150°C</i>
<i>Shock</i>	<i>: 1000g, 1/2 sine 3mS</i>
<i>Vibration</i>	<i>: 25g rms</i>