

## Continuous Monitoring Tool

The Canada Tech Continuous Monitoring Tool (CMT) is a permanently installed downhole pressure/temperature gauge with real-time surface readout.

The CMT can be attached to the tubing string and lowered into a well on the end of a single conductor cable (either a braided electric line or a hard tube wire). The CMT can also be suspended in the well on a tubewire or braided E-line. Once connected, pressure and temperature data is continuously transmitted to the surface for data collection and real-time readout.

The surface readout unit provides power to and receives data transmissions from the downhole CMT on the same single conductor. Surface readout unit options include the Memory & Pressure Display Unit, RTU Interface or Modbus Interface.

The Continuous Monitoring Tool uses the same proven Piezo-Resistive sensor and acquisition electronics as a number of other Canada Tech's pressure tools. It provides accurate and reliable data acquisition in a cost-effective and convenient package.

| FEATURES                   |
|----------------------------|
| Real Time Surface Readout  |
| Robust Telemetry           |
| Low Power Consumption      |
| Compact Size               |
| Accurate High Quality Data |
| Welded Sensor              |
| Metal-to-Metal Seals       |

| APPLICATIONS                              |
|---|
| Monitoring of Real-Time Downhole Pressure |
| Production Optimization                   |
| Fluid Level Monitoring                    |
| Production Testing Substitute             |
| Horizontal Interface Testing              |
| Pump Protection                           |
| Build-up Data                             |
| Input for Pump Control                    |



Please note that specifications and drawings are subject to change without notice.

## Continuous Monitoring Tool

| SPECIFICATIONS   |                         |   |
|------------------|-------------------------|---|
| General          | Approximate Length      | 16.4" (Internal Sensing)<br>14.4" (Annular Sensing) |
|                  | Diameter                | 7/8"  |
|                  | Cable Heads             | Tube wire   |
|                  | Housing Material        | Stainless Steel 17-4 or<br>Inconel 718              |
|                  | Diaphragm Material      | Hastelloy C   |
| Pressure         | Sensor                  | Piezo-Resistive                                     |
|                  | Standard Ranges         | 1,500 psi, 3,000 psi, 5,000 psi or<br>10,000 psi    |
|                  | Maximum Over            | 5% full scale                                       |
|                  | Differential            | Full scale  |
|                  | Accuracy                | 0.05% full scale                                    |
|                  | Long Term Stability     | 0.1% full scale                                     |
|                  | Drift                   | Less than 3 psi per year                            |
|                  | Resolution              | 0.0003% full scale                                  |
|                  | Response Time           | Instantaneous                                       |
| Temperature      | Standard Ranges         | 20°C to 120°C or<br>20°C to 150°C                   |
|                  | Accuracy                | ± 1.0°C   |
|                  | Repeatability           | ± 0.2°C   |
|                  | Resolution              | 0.001% full scale                                   |
| Power            | Source                  | On site   |
|                  | Voltage                 | 12 VDC to 16 VDC                                    |
|                  | Current                 | Up to 50 mA continuous                              |
| Data Acquisition | Record Contents         | Time / Pressure / Temperature                       |
|                  | Sample Interval         | 5 seconds - 1 hour                                  |
|                  | Sample on LCD           | Every 1.0 seconds                                   |
|                  | Downhole Communications | PSK Telemetry                                       |
|                  | Surface Communications  | RS 232 Serial or Modbus Interface                   |
|                  | Software                | Windows compatible                                  |

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