



DataCheck™

Wireless Sensor Power & Control

- ✓ **Battery powered for up to 5 years**
- ✓ **Intrinsically Safe (Exia)**

Innovative Sensor Solutions, Ltd. 's **DataCheck™** is a wireless telemetry system used to power and control a variety of low-voltage intrinsically-safe (IS) sensors and transmit their data from hazardous areas. **DataCheck™** employs state-of-the-art super high energy density lithium ion batteries and a patented sensor powering and control interface to provide long-term intermittent power and telemetry for a variety of low-power sensors.

DataCheck™ systems consist of IS, battery operated sensors, transmitters, repeaters (if needed), and receivers. The proprietary 900 MHz frequency-hopping Spread Spectrum technology provides numerous advantages, including:

Reliability: **DataCheck™** transmitters are "fully supervised" to ensure that they are actually communicating with their assigned receivers. The battery condition of each transmitter is monitored, and "Low Battery" alarms are issued about 1 month before batteries must be replaced. Data is transmitted very redundantly over multiple channels to ensure ultra-reliable communication even in the presence of noise and RF interference.

Licensing: **DataCheck™** products are FCC approved for unlicensed operation in the 900 MHz ISM band.

Superior Range: Multiple Repeaters may be employed to extend range around obstructions or over much greater distances.

Transmitter Specifications

Spread Spectrum scheme: frequency hopping

Operating Frequency Range: Multiple channels within the 902- 928 MHz ISM band

Operating temperature: -40° F - 150° F

Enclosure rating: IP- 67

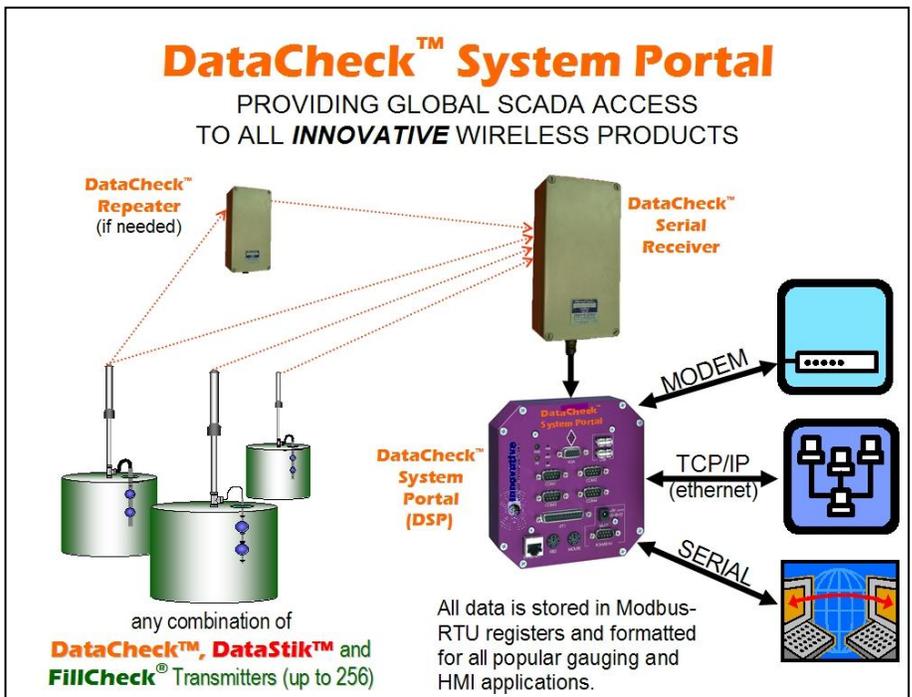
Sensor Power: up to 7 VDC @ 13 mA

Sensor Telemetry Duty Cycle: programmable 10 seconds to daily, or event-driven using the master discrete input

Battery type: 2 proprietary Lithium Thionyl Chloride D Cells (17 Ah, 10 year shelf-life)

Agency Approvals: CSA approved (US/C) Class I Div. 1 Groups C&D, Exia

Overlapping Systems: Each **DataCheck™** system is assigned a unique ID code so that multiple systems can coexist within a small area.

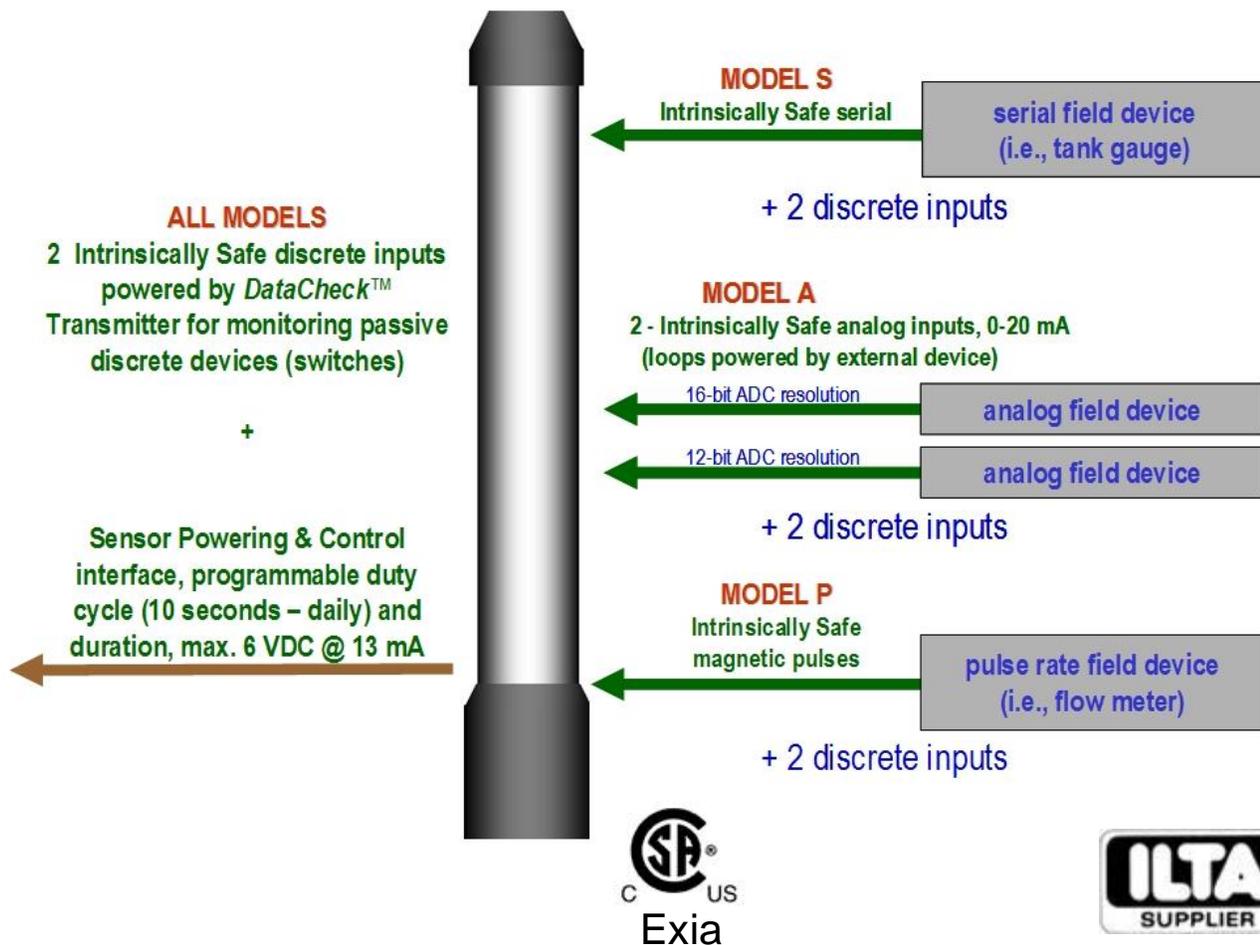




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Interface: The **DataCheck™ System Portal** (DSP) provides a universal interface to all *Innovative Sensor Solutions'* wireless products, including **FillCheck®**, **DataCheck™**, and **DataStik™**. Each DSP can supervise up to 256 of any combination of Transmitters and Repeaters. All sensor and transmitter data plus all system alarms and diagnostic features are conveniently stored in *Modbus-RTU* registers which can be accessed by serial port, ethernet (TCP/IP), or a modem. Sensor data is provided in several formats so as to be readily accessed by all popular HMI, Terminal Management Systems and tank gauging applications.



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