

SENTINEL

Intrinsically Safe Modules for Hazardous Areas

CLASS 1 DIVISION 1 CERTIFIED

RUGGED OIL FIELD PROVEN

WIRELESS PACTWARE™ AND RADARMATER™ SUPPORT

TRUE WIRELESS - POWERS SENSOR AND RADIO

WIRELESS CONFIGURATION



FEATURES

- Powers sensor and radio for years with an internal battery
- Class 1 Division 1 Intrinsically safe system
- Optional Class 1 Division 1 solar module with integrated charger, battery panel, and mounting bracket
- Costs less than 60ft of installed conduit
- Rugged design for demanding outdoor environments
- Up to 1/2 mile range
- Sensor independent
- 1/2" NPT conduit interface
- Automatically configures as a star or mesh network
- Simple to install and Maintain



MODELS

Sentinel HART

Connects to a single HART sensor

Sentinel Analog

Connects to a single 4-20 mA/1-5v sensor

Sentinel Digital

2 digital inputs
2 KHz frequency response

Sentinel Modbus

RS-485 Modbus interface

Sentinel Turbine

Connects directly to the Magnetic Pickup of the Turbine Sensor

Sentinel Thermocouple

Connects directly to Thermocouple sensors (j,k other)

Sentinel RTD

Connects directly to P100 RTD sensors

HART Model supports wireless PACTware and Wireless RadarMaster

SENTINEL

Intrinsically Safe Modules for Hazardous Areas

TECHNICAL SPECIFICATIONS

Operating Temp

-40°C to 60°C

Humidity

0% – 100% condensing

Power

3 X D Lithium battery pack. Field replaceable. Class 1 Division 1 certified when used with SignalFire system. In situ replacement does not require a work ticket. Optional Class1 Division 1 solar/battery module

Sensor Power

True wireless: powers both the radio system and the sensor/transmitter. User configurable for 18 and 12.5V. Barriers and external power not required.

Battery Life

1-10 years depending on the type of sensor and reporting frequency

Data Interface

Wireless – available as Modbus registers at Gateway

Data Update Rates

User-selectable. 5 seconds to 1 hour, typical.

Supported Sensor Interfaces

HART, 4-20 mA current loop, 1-5 Volt, Digital input (state, counter, totals, frequency), RS-485/Modbus, Thermocouple and RTD temperature sensors.

Radio Power

40 mW

Receive Sensitivity

-109 dB

Radio Frequency

902-928 MHz, FHSS, license-free ISM Band Compliant with FCC Part 15

Range

Up to 1/2 mile

Networks

Up to 65,520 separate networks

Intrinsically Safe

Class 1 Division 1, Temp Code T3, Groups C&D. Conforms to UL Std. 913, Certified to Can/CSA Std C22.2 No. 157

Internal Diagnostics

Battery voltage, signal strength, error conditions

STANDARD CONFIGURATION ORDER CODES

SENSOR TYPE	POWER SOURCE	ORDER CODE
HART	Internal Lithium Battery Pack	Sentinel-Hart-3BIS
HART	Solar/Battery System	Sentinel-Hart-Solar
Analog (1-5V or 4-20 mA)	Internal Lithium Battery Pack	Sentinel-Analog-3BIS
Analog (1-5V or 4-20mA)	Solar/Battery System	Sentinel-Analog-Solar
Modbus	Internal Lithium Battery PackModbus	Sentinel-485-3BIS
Modbus	Solar/Battery System	Sentinel-485-Solar
Digital Inputs (2)	Internal Lithium Battery PackModbus	Sentinel-DI-3XBIS
Digital Inputs (2)	Solar/Battery System	Sentinel-DI-Solar