A2 LONG RANGE

Long-range, multiple-input modules for sophisticated data transmission certified for use in Class 1 Division 2 areas

POWERS SENSOR AND RADIO UP TO 10 YEARS WITH A HIGH CAPACITY BATTERY PACK

C1D2 & RUGGED NEMA 4X ALUMINUM DESIGN

UP TO A 3-MILE (5KM) RANGE - USING VARIOUS INPUT POWER OPTIONS

AUTOMATICALLY CONFIGURES AS A STAR OR MESH NETWORK

SIMPLE TO INSTALL AND MAINTAIN

FEATURES

- Powers sensor and radio up to 10 years with a high capacity battery pack
- Flexible power options – Battery, Solar or External DC
- AES128 Encryption for secured wireless communications
- Class 1 Div 2 & Rugged NEMA 4X aluminum design
- Up to 3-mile (5km) range – using various input power options
- Sensor independent – works with 4-20mA, 1-5Vdc, Modbus, HART, Thermocouple, Pulse, Dry Contact
- 1/2” NPT conduit interface & remote mounted antenna option
- Automatically configures as a star or mesh network

MODELS

A2

Monitor two analog sensors and one digital input:

- 4-20 mA current loop sensor
- 1-5 V sensor
- Digital input/counter

HART

Monitor one HART® loop and one digital input:

- HART (1-4 sensors)
- Digital input/counter

Modbus

Monitor one or more Modbus sensors

Thermocouple Input

Monitor one K-Type Thermocouple

SDI-12 Interface

Monitors and powers one or more SDI-12 sensors:

- Provides 12VDC to a single SDI-12 bus
- Reads/reports up to 10 measurements
- Supports SDI-12 sensor addresses 0 through 9
- Supports reading the default measurement and all additional measurements from connected SDI-12 devices
- All measurements are available as 32bit float values in Modbus registers at the Gateway

SIGNALFIRE WIRELESS TELEMETRY

www.signal-fire.com | 140 Locke Drive, Suite B, Marlborough, MA 01752 USA | 978.212.2868

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TECHNICAL SPECIFICATIONS

Ambient Temperature Range:
-40°F to 176°F (-40°C to 80°C)

Humidity
0% – 100% condensing

Power
3 X D Lithium battery pack.
Field replaceable. Solar and DC input power options available.

Sensor Power
12.5 or 18V Jumper selectable for 4-20mA current loop, 1-5Vdc, or HART sensors.
- Analog and HART sensor power is provided from the system, no need for external sensor power.
- Modbus requires external sensor power

Battery Life
1–10 years depending on the type of sensor and reporting frequency

Approval Rating
A2 Sensor Interface For use in:
Class I, Division 2, Groups A, B, C, D.
Temperature Class: T4
- UL 121201
- UL 61010-1
- UL 61010-2-201
- CSA C22.2#213
- CSA C22.2#61010-1-12
- CSA C22.2#61010-2-201

Data Interface
Wireless – available as Modbus registers at Gateway

Data Update Rates
User configurable from 5 sec to 2 hours

Supported Sensor Interfaces
- Analog (4-20mA/1-5Vdc)
- Digital input
- HART
- RS485 Modbus RTU
- K-Type Thermocouple
- SDI-12 sensors

Radio Power
500 mW

Antenna Type
External Weather Resistant, Omnidirectional. Optional N-Connector for remote mounted antenna.

Receive Sensitivity
-105 dB

Frequency
902-928 MHz License Free ISM Band
Compliant with FCC Part 15

Range
Up to 3 Miles (Line of Sight)

Wireless Node Per Gateway
Up to 240 nodes on a single SignalFire Gateway

Enclosure
Aluminum, NEMA 4X Rated

Internal Diagnostics
Battery voltage, signal strength, error conditions

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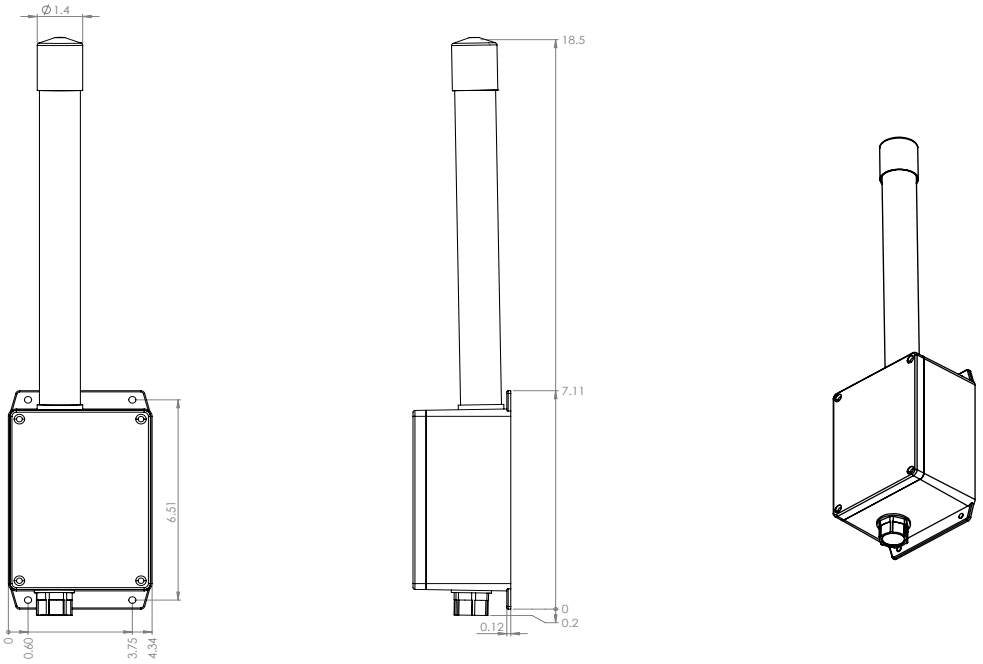
DIMENSIONS



HOW TO ORDER

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Sensor Type

HART	=	HART Communication Interface, supports up to 4 HART devices
A2D1	=	Dual Selectable Analog 1-5V or 4-20mA Interface and Single Digital Input
KTHERM	=	K-Type Thermocouple Interface
JTHERM	=	J-Type Thermocouple Interface
SDI12	=	SDI12 Input for compatible SDI12 sensors
485	=	RS485 Modbus Interface

Antenna

STDANT	=	Integrated Antenna
NCon	=	N Connector on housing. No Antenna
N20	=	Remote Mount Antenna, N-Male Connector
N30	=	Remote Mount Antenna, N-Male Connector
N50	=	Remote Mount Antenna, N-Male Connector

Power Source

3XD	=	Lithium Primary Battery
DC	=	DC Converter for 10-30VDC External Power, with A2 specific connector
HCSolar	=	High Capacity Solar System, 9.0AH Capacity
NONE	=	Solar ready, cable gland for solar wire

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