

A2 LONG RANGE

Long-range, multiple-input modules for sophisticated data transmission over distances of up to three miles between nodes.

POWERS SENSOR AND RADIO FOR YEARS WITH A BATTERY

RUGGED DESIGN FOR DEMANDING OUTDOOR ENVIRONMENTS

UP TO A 3-MILE RANGE

AUTOMATICALLY CONFIGURES AS A STAR OR MESH NETWORK

SIMPLE TO INSTALL AND MAINTAIN



FEATURES

- Powers sensor and radio for years with an internal battery
- Optional solar power package
- Costs less than 60ft of installed conduit
- Rugged design for demanding outdoor environments
- Up to 3-mile range
- Sensor independent
- 1/2" NPT conduit interface
- Automatically configures as a star or mesh network
- Simple to install and Maintain



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

Cathodic Protection Monitor

Monitors cathodic protection DC rectifier voltage & current:

- DC rectifier range 0-75V
- Measures voltage across high side shunt resistor, 0-100mV range
- Can convert shunt voltage to current when configured with shunt resistance
- 1 Digital input, reports state and frequency

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TECHNICAL SPECIFICATIONS

Operating Temp

-40°F to 185°F (-40°C to 85°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, 1-5V, or HART sensors. 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

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/1-5V)
- Digital input
- HART
- RS485 Modbus RTU
- K-Type Thermocouple
- SDI-12 sensors
- Cathodic Protection

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)

Enclosure

Aluminum, NEMA 4X Rated

Internal Diagnostics

Battery voltage, signal strength, error conditions

STANDARD CONFIGURATION ORDER CODES

A2 - [] - [] - []

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 |
| A1D1P1 | = | Selectable Analog 1-5V or 4-20mA, Single Digital Input, and Potentiometer |
| CP | = | Cathodic Protection Monitoring Interface |
| KTHERM | = | K-Type Thermocouple Interface |
| 485 | = | RS485 Modbus Interface |
| SDI-12 | = | SDI-12 Interface and Digital Input |

Antenna

- | | | |
|--------|---|--|
| STDANT | = | Integrated Antenna |
| N20 | = | Remote Antenna, N-Male, 20' RG58 Cable |
| N30 | = | Remote Antenna, N-Male, 30' RG58 Cable |
| N50 | = | Remote Antenna, N-Male, 50' RG58 Cable |

Power Source

- | | | |
|---------|---|---|
| 3XD | = | Lithium Primary Battery |
| DC | = | DC Converter for 10-30VDC External Power |
| HCSolar | = | High Capacity Intrinsically Safe Solar System |