



## iPro 1000/3000 Wireless Base Stations



### Description

The iPRO Series Wireless Base Station is a robust portable wireless data logger with an available color touch screen display and cellular modem (iPro 3000 Only). Utilizing all the features and functionality of the standard DataPort base radio logger (BRL), it delivers portability and convenience for well testing, permanent out of the box well site surveillance and many other applications. The iPro Series loggers accomplish this by wirelessly collecting data from up to 100 DataPORT™ sensors from a range of 3,000 feet to over a mile depending on antenna selection. The USB interface can be used to connect a PC for real-time viewing using our optional DataPort Monitor software. Our most experienced applications include hydro-testing, various well testing environments, frac (DFIT) monitoring, well clean-out, and more. AKS can customize the iPro Series and sensor setup to almost any industry application.

### Technical Specifications

#### Main Components

- Base Radio Module and logger
- Optional Touch Screen Interface
- Optional Internal cellular data modem
- Internal Wi-Fi server with integral browser

#### Power Characteristics

- Internal NiMH re-chargeable battery
- 120/220VAC charger/adaptor included
- External 8 to 26VDC input
- Solar Panel Option
- Intelligent power management to provide advanced features with extended battery life

#### RF Characteristics

- 902 MHz – 928 MHz Frequency Hopping Spread Spectrum (FHSS), FCC certified ISM license-free band
- Sensors can be up to 3000 feet away with clear line of sight; may be greater than 1 mile with optional antennas.
- Fully temperature compensated

#### Communication and I/O Options

- USB monitor port - serial protocol (Modbus) compatible with most standard HMI packages
- RS-485 Modbus (Master)
- RS-485 Modbus (Slave) - direct connect to existing RTUs - field monitor software
- Modbus over optional internal cell modem
- Modbus TCP over Ethernet (with optional off-the-shelf converter)
- Connection to many standard satellite modem systems
- Wi-Fi (802.11b,g). Internal web-server allows variables to be viewed or set using any Wi-Fi enabled device with internet browser. Real-time monitoring function provided.

#### Logging and Processing Capabilities

- Internal 2GB compact flash card for virtually unlimited storage of logged data in standard file format that can be directly read by any PC
- On-board AGA3 and AGA8 calculations
- Sample rates as high as 1/sec from all sensors

## Technical Specifications - Cont.

### Environmental

- Operating temperature range (with display): -35°C to +65°C
- Storage temperature: -40°C to +85°C

### Enclosure

- IP67 or NEMA4x enclosure
- Watertight, crushproof, and dust proof
- O-ring seal
- Automatic Pressure Equalization Valve
- Stainless steel hardware

### Remote Antenna Options

A wide variety of antenna options are available for both the wireless sensor network and cellular network for those units that have the optional cell modem. The Wi-Fi comes with an internal antenna.

### Cellular Network

- Dual-Band phantom
- Directional high gain Yaggi

### Wireless Sensor Network Antenna

- Universal type N or SMA on box
- Rubber Duckie
- Up to 11 dbm omni-directional

### Integrated 802.11 Wi-Fi Option

- Integrated Wi-Fi (802.11)
- Integrated Web-Server accessible by any browser including most smart devices
- Mobile device interface
- Creates own local secure network
- Monitored values may be viewed and system parameters set
- Ability to join local Wi-Fi networks
- Multi-Channel (13) for interference free operation
- Provides WEP, WPA and WPA2 Wireless LAN security

### Integrated Touch-Screen Option

- Large, color back-lit display
- Resolution 480x272
- Easy outdoor viewing
- Screen management provides extended battery life
- Soft-key configurable for custom applications

### Integrated Cellular Data Modem

- Available for virtually all cell networks
- Secure, TCP/IP based

- Robust, error-correcting protocols
- Hi gain directional yaggi antenna for reliable remote connectivity

### Software

- Configuration and Diagnostic Software (DataPORT™ WIM) for sensor configuration and test. Software available at no cost with system purchase
- DataPORT™ Monitor software. General purpose monitoring software includes real-time collection, trending and data monitoring. Works through USB connection and remotely with the optional cell modem (TCP/IP Modbus)
- Modbus interface allows connection to a wide-variety of commercial field collection and SCADA software packages.



iPro 1000 shown with standard battery charger/power supply, remote antenna, 10 feet of antenna extension cable

AKS reserves the right to alter, change or make revisions as necessary to any of the above statements.