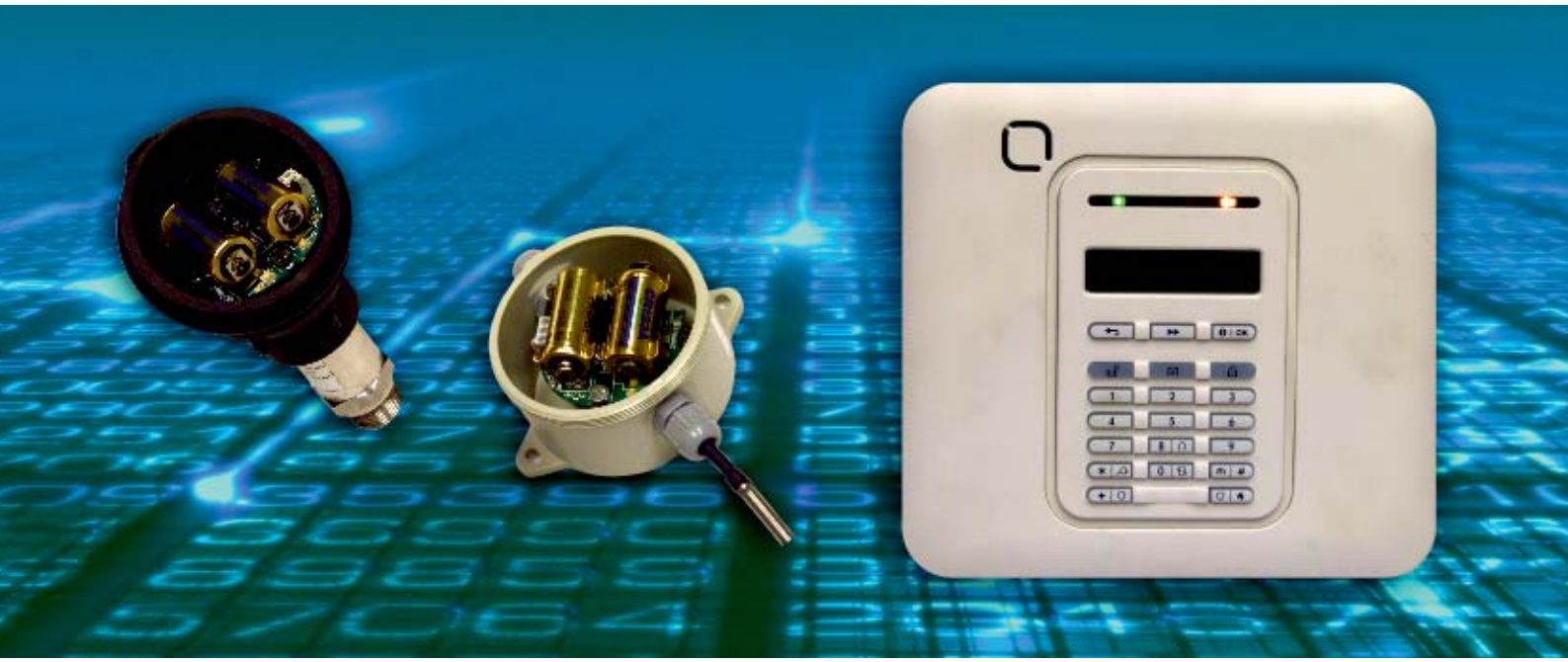
SensiNext
SENSORS & WIRELESS

Industrial Wireless Sensor Network

SmartNext™

Breakthrough Technology for Industrial Monitoring & Control



SmartNext system uses state-of-the-art wireless technology to provide industrial measurement and monitoring solutions with the highest reliability and efficiency.

- **True Plug-n-Play installation**
- **Standard inputs: 4-20mA, PT100, 0-2V, digital**
- **Complete remote configuration**
- **Full two-way, time-synchronized network**
- **Frequency Hopping Spread Spectrum technology - provides military-grade robustness and reliability**
- **Long battery life - over 2 years for sensor readings every minute***
- **Long communication range - 1500m line-of-sight****
- **High-speed remote interrogation and control of wireless sensors**

SmartNext wireless sensor network

True Plug-n-Play simple installation

- Small device, easily mounted and connected to a variety of industrial sensors: resistance (RTD), current (4-20 mA), voltage (0-2V) and switch status
- Special enrollment button on each device simplifies installation and registers the device to the network in seconds
- Visible signal quality indication shown on the device - enables the installer to quickly optimize the device location without walking to the control panel
- All devices are set with typical sensor defaults and are also configurable from the panel
- Powerful diagnostic tool indicates RF link quality, based on the previous 24 hours' statistics and on-demand bi-directional measurements, and also detects and displays problems in link
- Quick to configure standard Modbus interface from the control panel to host SCADA and HMI devices and systems

Reliable, secure and robust radio link

- Two-way communication ensures that each message from the sensor reaches the control panel
- Multiple frequency channels using Frequency Hopping Spread Spectrum military-grade technology overcome interference and enable multiple networks to operate in the same area without disturbing each other
- Devices find the optimal route to the control panel using available repeaters as needed
- Communication is secured by the proven AES-128 encryption algorithm to protect against intrusion and incorrect/corrupt data

High performance, energy efficient system

- Two-way synchronized spread spectrum communication avoids unnecessary re-transmissions
- Long communication range reduces the number of repeaters and control panels needed
- Adaptive transmission power saves energy by using less signal power when it is sufficient
- Ultra-low power consumption enables years of operation without sacrificing speed and response time of monitoring and control

SensiNext
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Wireless sensors and network components


Control Panel


Wireless pressure sensors


Repeater


Wireless humidity sensors


Wireless temperature sensors


Wireless level sensors/ switches

Other sensors available

Specifications:

Inputs: 4-20mA, PT100, 0-2V, digital

RF signal: Frequency Hopping Spread Spectrum, GFSK

Frequency band: 433 MHz, 868 MHz, 915 MHz (other bands available)

Typical range, indoor: 50m to 100m

Control panel interface: Modbus RTU or Modbus TCP

Encryption: AES-128

Output power: Automatically adjusted, up to 10 mW ERP

Transmit interval: From 1 sec, remotely configurable

Number of sensors: 30 per each control panel

Power source - wireless sensors:
2x CR123A Lithium battery

Power source - control panel, repeater: 220V/110V AC

Backup power - control panel, repeater: 4.8V NiMH battery

Operating temperature: -30°C to +70°C, at RH < 90%

Receiver Sensitivity: -105dBm

*with RTD sensors and standard CR123A batteries
**range obtained in actual installations is reduced due to construction signal attenuation

Distributor: