

# DREXELBROOK<sup>®</sup>

## Wireless Interface Solutions

### Wireless Analog / Digital Link

### Tube Mount NEMA 4x Transmitter DIN-Rail / Receiver Set



### Features

- Wireless conduit for one 4-20 mA and two digital signals
- Weatherproof NEMA 4x (equivalent to IP65) housing
- Range: 4 to 5 miles line-of-sight with Omni antenna
- Easy-to-use, wire-in / wire-out, no set-up or programming
- Frequency Hopping Spread Spectrum technology
- License free 902 - 928MHz ISM band
- 1 watt transmit power
- Mounts on 1/2" NPT conduit

### General Description

The Ametek Drexelbrook 2867021-DRX / 2867034-DRX is an integrated radio & I/O module designed to eliminate cable and conduit for one 4-20 mA current loop and two digital signals in harsh industrial environments. This unique addition to the

Ametek Drexelbrook signal conditioning line utilizes 902-928 MHz ISM band spread spectrum frequency hopping technology to guarantee a license free, interference free link between remote devices and the control room. Costly cable and conduit runs on new projects, or retrofitting of existing systems, are eliminated and replaced with a maintenance free, reliable and versatile wireless solution. Common applications include: Monitoring control of pressure, level, temperature, flow, switching and alarms in situations where cable and conduit are either impossible or too costly to install. For example: retrieving pressure readings from a device on the other side of a railway track.

The modules are available as a transmitter / receiver pair and come factory programmed, calibrated and tested as a set. Further switch configuration and programming are not required. Each set is given a unique address at the factory enabling multiple radio systems to work independently in the same area without interference. The weatherproof transmitters are available in both AC and DC power versions, the receiver in DC only, suitable for DIN-rail mounting. Voltage requirement for the AC transmitter is 100 to 240 VAC. The DC powered modules require a 12 to 30 VDC power source (power supply, battery, solar, etc.). Quick and easy to install, the process signals are simply wired to the color-coded wires of the transmitter and output via wires connected to the receiver. No wiring is required in between. Typical outdoor range is 1 to 2 miles with no line-of-sight, 4 to 5 miles with line-of-sight, and 20+ miles with professional antenna propagation study and installation.

The transmitters mount directly to 1/2" NPT conduit and are rated NEMA 4x (IP65) and measure 279 mm x 57 mm or 11" x 2.3" including Omni antenna. The space-efficient DIN-rail mounted receiver taking up only 102 mm (length) x 114.5 mm (height) x 17.5 mm (width) or 4" x 4.5" x 0.7" in the control cabinet.

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### Specifications

#### 2867021-DRX AC Transmitter

**Transmit Power:** 1 watt  
**Range:** 600 to 1,000 feet, in-plant, no line-of-sight.  
4-5 miles, line-of-sight, flat terrain, raised antennas.  
20+ miles line-of-sight, flat terrain, professional antenna propagation study, and directional antennas.  
**Frequency:** 902 to 928 MHz  
**Power Source:** 100 to 240 VAC, 50 to 60 Hz, 10 VA  
**Power Consumption:** 13 watts  
**Inputs:** 1 x 4 - 20 mA analog (250 ohm input impedance); 2 x 85 to 240 VAC discrete inputs  
**Temperature Range:** -40° to 158°F (-40° to 70°C)  
**Humidity:** NEMA 4x  
**Dimensions:** 11" x 2.3" (279 mm x 57 mm) diameter, dimensions include Omni antenna  
**Mounting:** 1/2" NPT (female) - vertical  
**Environmental:** NEMA 4x (IP65)  
**Approvals:** UL listed (Class I, Division 2 Groups A, B, C and D) approved, CSA approval

#### 2867034-DRX DC Transmitter

**Transmit Power:** 1 watt  
**Range:** 600 to 1,000 feet, in-plant, no line-of-sight.  
4-5 miles, line-of-sight, flat terrain, raised antennas.  
20+ miles line-of-sight, flat terrain, professional antenna propagation study, and directional antennas.  
**Frequency:** 902 to 928 MHz  
**Power Source:** 9 to 30 VDC  
**Power Consumption:** 1.8 watts (average), 8.4 watts (peak)  
**Inputs:** 1 x 4 - 20 mA analog (250 ohm input impedance); 2 x 5 to 30 VAC discrete inputs  
**Temperature Range:** -40° to 158°F (-40° to 70°C)  
**Humidity:** NEMA 4x  
**Dimensions:** 11" x 2.3" (279 mm x 57 mm) diameter, dimensions include Omni antenna  
**Mounting:** 1/2" NPT (female) - vertical  
**Environmental:** NEMA 4x (IP65)  
**Approvals:** UL listed (Class I, Division 2 Groups A, B, C and D) approved.

#### 2867021-DRX / 2867034-DRX Receiver

**Frequency:** 902 to 928 MHz  
**Power Source:** 12 to 30 VDC (regulated)  
**Power Consumption:** 3 watts (84 mA @ 24 VDC)  
**Outputs:** 1 x 4-20 mA analog (12-bit resolution), 3 x 120 VAC 0.5 A digital (dry contact)  
**Max. Loop Impedance:** 150 to 1350 ohms for power supply voltages of 12-30 VDC (VIN-9V/20mA)

**Repeatability:** 0.02%  
**Accuracy:** 0.2% of full scale  
**Temperature Range:** -40° to 70°C (-40° to 158°F)  
**Humidity:** 0 to 95% non-condensing  
**Dimensions:** 102 x 114 x 17.5 (mm) 4 x 4.5 x 0.7 (in.)  
**Mounting:** DIN-rail  
**Environmental:** NEMA 1  
**Approvals:** UL listed (Class I, Division 2 Groups A, B, C and D) approved.