

## Wireless Interface Solutions

### Two-Way (Multipoint to point) Monitoring and Control with Expandable I/O options



#### Features

- Eliminates costly wiring, conduit, and installation
- Modular DIN-rail mount transceiver and I/O modules
- No programming required
- Provides up to 33 analog or 66 digital signals per bank
- Class 1, Div 2 approved
- Range 4 to 5 miles line of site with Omni antenna
- License Free 902 – 928 MHz ISM Band
- 1 watt transmit power
- Frequency hopping Spread Spectrum technology

#### General Description

The AMETEK Drexelbrook 5605715-X-DRX is an integrated radio with I/O module designed for bi-directional interfacing of 4- 20mA and discrete signals in harsh industrial environments. The unique design allows the user to add on multiple channels of I/O to the transceivers in virtually endless combinations. The frequency hopping spread spectrum (FHSS) technology utilizes the 902-928MHz ISM band to guarantee a license free, interference free link between remote devices and the control room. The design is ideal for moving numerous signals within high interference environments without costly cable and conduit runs.

The Transceiver and I/O modules are delivered preprogrammed from the factory. There is no complicated field programming required. Simply connect power and signal wires and you are up and running.

I/O expansion modules connect directly to the transceiver into a 5 pin bus connection. The bus connection provides power to the modules and communication to the transceiver. Up to eight I/O expansion modules can be connected to one transceiver. All modules are designed for DIN rail mounting.



# Level Measurement

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#### 5605715-X-DRX Transceiver Specifications

<b>General</b>	
Range	600 to 1,000 feet (180 to 305 m) in-plant (obstructed);4-5 miles (6-8 km) LOS with Omni antenna; 20+miles (32+km) LOS with Yagi antenna
Inputs	One (1) 4-20mA analog input (16-bit, 125 ohms impedance) Two (2) digital inputs (5-30VDC)
Outputs	One (1) 4-20mA analog input (16-bit, short-circuit protected) Two (2) digital inputs (dry contact, NO, contact rating: 250VAC / 2 A)
I/O Expansion Capacity	Four (4) analog and eight (8) digital I/O modules
Repeatability	Current loop: 0.02%
Accuracy	Current loop: 0.2% of full scale at 77° F (25° C)
Wiring Connections	12-24 AWG screw-type terminals; removable terminal blocks
Mounting	DIN-rail mount
<b>Primary Power</b>	
Input Voltage	9 to 30VDC
Reverse Polarity Protection	Yes
Surge Protection	Yes
Power Consumption	75mA (avg) / 200mA (peak) @ 24VDC during transmission (plus I/O modules)
<b>Transceiver</b>	
Frequency	902 to 928 MHz -ISM band
Transmit Power	1 Watt (30 dBm)
RX Sensitivity	-110 dBm
Unit ID	Factory configured (unique); 16-bit coding of each transceiver pair allows multiple units to be used in the same area
Antenna Connector	MCX female
Antenna Impedance	50 ohms
<b>Diagnostics</b>	
Indicators	External LEDs (power, RF link, I/O status) / RF link relay 250VAC /2 A
<b>Environmental</b>	
Humidity	20% to 90% (non-condensing)
Temperature	Operating: -40 ° to ++158° F (-40 ° to ++70° C)
Size	4.5 " x 3.9 " x 0.9 " ((114 mm x 99 mm x 23 mm)
Weight	5.3oz (150g)
Enclosure	NEMA 1 (equivalent to IP20)
<b>Agency Approvals</b>	
FCC	Part 15.247
ISC	RSS 210
UL/C	Class I, Div. 2 (Groups A, B, C, D)

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### Two-Way Monitoring and Control with Expandable I/O options

#### 2867144-DRX Digital Input Module Specifications

Channels	Eight (8)
Input Voltage Range	5 to 30VAC/DC
Input Impedance	20 K ohms
Channel Isolation	Optical
Reverse Polarity Protection	Yes
Over-voltage Rating	100VAC/DC max.
Power Consumption	30mA max.

#### 2867157-DRX Digital Output Module Specifications

Channels	Eight (8)
Output Terminals	Dry contact (NO)
Contact Ratings	250VAC /2 A
Channel Isolation	Full
Power Consumption	160mA max.

#### 2867115-DRX Analog Input Module Specifications

Channels Four	(4)
Resolution	16-bit
Input Impedance	<170 ohms
Channel Isolation	None (power supply connections are common with transceivers)
Reverse Polarity Protection	Yes
Compatibility	2-wire, 3-wire, 4-wire devices
Over-voltage Rating	42VDC max.
Accuracy	0.2% of full scale
Repeatability	0.02% of full scale
Power Consumption	130mA max.

#### 2867128-DRX Analog Output Module Specifications

Channels Four	(4)
Resolution	16-bit
Channel Isolation	Optical
Short-circuit Protection	Yes
Compatibility	2-wire, 3-wire, 4-wire devices
Accuracy	0.12% of full scale
Repeatability	0.02% of full scale
Power Consumption	130mA max.
Min. Loop Voltage Drop	10 V

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#### 2867322-DRX Combination Module Specifications

Channels	One (1) analog input    One (1) analog output Two (2) digital inputs    Two (2) digital outputs
Channel Isolation	All (except for analog input channel)
Reverse Polarity Protection	Yes
Analog Channel Input Impedance	<170 ohms
Analog Channel Repeatability	0.02% of full scale
Analog Channel Resolution	16-bit
Analog Channel Accuracy	0.2% of full scale
Analog Channel Compatibility	2-wire, 3-wire, 4-wire devices
Analog Input Channel Over-voltage Rating	42VDC max,
Digital Input Channel Input Impedance	20 K ohms
Digital Input Channel Over-voltage Rating	100VAC/DC max.
Digital Input Channel Voltage	5 to 30VAC/DC
Digital Output Channel Contact Ratings	250VAC /2 A
Digital Output Channel Type	Dry contact (NO)
Power Consumption	120mA max.

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