

Wireless sensing made simple.



And Affordable.

SureCross™ DX70 delivers a dedicated wireless industrial I/O solution.

- Installs where conduit/wiring is not practical; up to 3 mile range*
- Provides directly mapped I/O with four discrete inputs and outputs, two analog inputs and outputs, and link loss output**
- Communicates on secure and reliable Frequency Hopping Spread Spectrum (FHSS) protocol
- Delivers two-way RX/TX communications with full acknowledgement
 - Available in 900 MHz or 2.4 GHz ISM frequencies
 - Features built-in signal strength indicator
 - Offers external or internal antenna options



* Range depends upon line of sight and environment; high-gain antennas are available to increase range.
** Link loss output may be designated to be one of the four outputs.

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Add sensing capabilities easily in hard-to-reach locations

- ▶ SureCross™ Radio Frequency Network bridges two locations wirelessly.
- ▶ Easily access locations that are impractical for hardwired communications.
- ▶ Digital and analog I/O included in each unit.
- ▶ Gateway and Node modules with direct mapping provide plug-and-play installation.



Robust, secure communication and deterministic response

- ▶ State-of-the-art FHSS wireless protocol and Time Division Multiple Access (TDMA) technology combine to ensure reliable, secure data communication.
- ▶ Lost RF links are detected and relevant outputs go to user-defined "Safe Harbor" default states.
- ▶ All models provide four discrete inputs, four discrete outputs, two analog inputs and two analog outputs.
- ▶ Network ID rotary switch facilitates multiple SureCross DX70 networks per location.
- ▶ Transceivers provide two-way communications between devices, including fully acknowledged data transmission.

Powerful, rugged, reliable and affordable

- ▶ NEMA 6P, IP67 rated housing ensures long-lasting performance in challenging environments and outdoor applications.
- ▶ Built-in signal strength indicator provides constant real-time feedback on the communications signal.
- ▶ Choice of 900 MHz or 2.4 GHz models operating in the industrial, scientific, and medical (ISM) band.
- ▶ Models are available with internal, external or remote antenna options.

www.bannerengineering.com/dx70

1.888.373.6767



SureCross™ DX70 Wireless Network



Device	Models	Frequency	Power	Antenna	I/O	Data Sheet
Nodes	DX70N9X6S4P4M2M2	900 MHz ISM Band	Line 10 to 30V dc	Standard	Discrete Inputs: Four Sourcing Discrete Outputs: Four Sourcing Analog Inputs: Two 0-20 mA Analog Outputs: Two 0-20 mA	133214
	DX70N9X6W4P4M2M2			Internal		
	DX70N2X6S4P4M2M2	2.4 GHz ISM Band		Standard		
	DX70N2X6W4P4M2M2			Internal		
Gateways	DX70G9X6S4P4M2M2	900 MHz ISM Band	Line 10 to 30V dc	Standard		
	DX70G9X6W4P4M2M2			Internal		
	DX70G2X6S4P4M2M2	2.4 GHz ISM Band		Standard		
	DX70G2X6W4P4M2M2			Internal		

General Specifications

	900 MHz	2.4 GHz
Range, with standard 2 dB antenna*	Up to 4.8 kilometers (3 miles)	Up to 3.2 kilometers (2 miles)
Frequency	902 to 928 MHz ISM band	2.4 to 2.4835 GHz ISM band
Transmit Power	21 dBm Conducted	18 dBm Conducted, ≤ 20 dBm EIRP
Spread Spectrum Technology	FHSS (Frequency Hopping Spread Spectrum)	FHSS (Frequency Hopping Spread Spectrum)
Compliance	FCC ID TGUDX80 - This device complies with FCC Part 15, Subpart C, 15.247	FCC ID UE300DX80-2400 - This device complies with FCC Part 15, Subpart C, 15.247; ETSI/EN: In accordance with EN 300 328: V1.7.1 (2006-05)
Power**	+10 to 30V dc (For European applications: +10 to 24V dc ±10%)	
Indicators	Green/Red Power LED, Yellow/Red Signal LED	
External Cable Glands	Two 1/2-inch NPT type	
Environmental Rating	IEC IP67; NEMA 6	

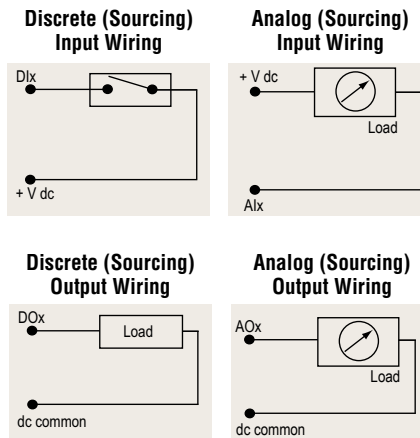
* Range depends upon the environment and line of sight. High-gain antennas are available to increase the range.
** For European applications, power the DX70 from a Limited Power Source as defined in EN 60950-1.

Configured Input/Output Mapping

Terminal Block Label	DX70 Gateway	DX70 Node	Terminal Block Label
DI1	Discrete IN 1*	Discrete OUT 1 or Lost Link*	DO1
DI2	Discrete IN 2	Discrete OUT 2	DO2
DI3	Discrete IN 3	Discrete OUT 3	DO3
DI4	Discrete IN 4	Discrete OUT 4	DO4
AI1	Analog IN 1	Analog OUT 1	AO1
AI2	Analog IN 2	Analog OUT 2	AO2

DO1	Discrete OUT 1 or Lost Link*	Discrete IN 1*	DI1
DO2	Discrete OUT 2	Discrete IN 2	DI2
DO3	Discrete OUT 3	Discrete IN 3	DI3
DO4	Discrete OUT 4	Discrete IN 4	DI4
AO1	Analog OUT 1	Analog IN 1	AI1
AO2	Analog OUT 2	Analog IN 2	AI2

* If digital output 1 is used as a lost link output (default) then digital input 1 is non-functional.



Refer to the sensing device data sheet P/N 133214 for a device specific wiring diagram.

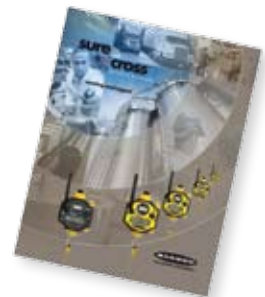


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A complete resource for tutorials, product questions and answers—and the mechanics and theory behind sensor technology available online at www.bannerengineering.com/training

- Q: What should I know before considering a wireless implementation?**
- Q: How do I apply wireless in an industrial setting?**
- Q: How can I determine radio performance in my application?**
- Q: What factors limit the abilities of a wireless solution?**
- Q: How can I increase signal reliability?**

Go online for answers to these questions or to pose your own!



Wireless Brochure

Find a detailed overview of the complete SureCross™ DX80 wireless network product line—including a comprehensive listing of models and an expansive selection of application examples. Request P/N 131620 or download at bannerengineering.com



www.bannerengineering.com/dx70

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