K70 Wireless Indicator Light

Features

The Sure Cross® K70 Wireless Indicator Light combines the best of Banner's popular Indicator Light family with its reliable, field-proven, Sure Cross wireless architecture.



- Available in 900 MHz and 2.4 GHz ISM radio frequencies
- Up to five colors in one device
- Rugged, water-resistant IP65 housing with UV-stabilized material
- Bright, uniform indicator segments appear gray when off to eliminate false indications from ambient light
- Two-way communication - lights can be controlled with the input wires or the client radio
- Input wires can be configured as auxiliary sourcing inputs from external devices or as a 20 Hz, 32-bit event counter

IMPORTANT: Please download the complete K70 Wireless Indicator Light technical documentation, available in multiple languages, from www.bannerengineering.com for details on the proper use, applications, Warnings, and installation instructions of this device.

IMPORTANT: Por favor descargue desde www.bannerengineering.com toda la documentación técnica de los K70 Wireless Indicator Light, disponibles en múltiples idiomas, para detalles del uso adecuado, aplicaciones, advertencias, y las instrucciones de instalación de estos dispositivos.

IMPORTANT: Veuillez télécharger la documentation technique complète des K70 Wireless Indicator Light sur notre site www.bannerengineering.com pour les détails sur leur utilisation correcte, les applications, les notes de sécurité et les instructions de montage.

Models

900 MHz Models

Model	No. of Colors	Colors	Connection
K70DXN9GYRQ	3	Green, Yellow, Red	Integral 5-pin M12 male quick-disconnect connector
K70DXN9BGYRQ	4	Blue, Green, Yellow, Red	Integral 8-pin M12 male quick-disconnect connector
K70DXN9WBGYRQ	5	White, Blue, Green, Yellow, Red	

2.4 GHz Models

Model	No. of Colors	Colors	Connection
K70DXN2WBGYRQ	5	White, Blue, Green, Yellow, Red	Integral 8-pin M12 male quick-disconnect connector

The following models are no longer available for order but are still covered by the information in this document.

900 MHz Models

Model	No. of Colors	Colors	Connection
K70DXN9RQ	1	Red	Integral 5-pin M12 male quick-disconnect connector
K70DXN9GRQ	2	Green, Red	

2.4 GHz Models

Model	No. of Colors	Colors	Connection
K70DXN2RQ	1	Red	Integral 5-pin M12 male quick-disconnect connector
K70DXN2GRQ	2	Green, Red	
K70DXN2GYRQ	3	Green, Yellow, Red	
K70DXN2BGYRQ	4	Blue, Green, Yellow, Red	Integral 8-pin M12 male quick-disconnect connector

Integral quick-disconnect connector models are listed; a mating corset is required (see "Accessories" on page 8).

- To order the 150 mm (5.9 in) PVC-jacketed cable with quick-disconnect connector model, replace the **Q** with **QP** in the model number, for example **K70DXN9RQP**.
- To order the 2 m (6.5 ft) cable models, omit the suffix **Q** in the model number, for example **K70DXN9R**.

Original Instructions
04-May-26

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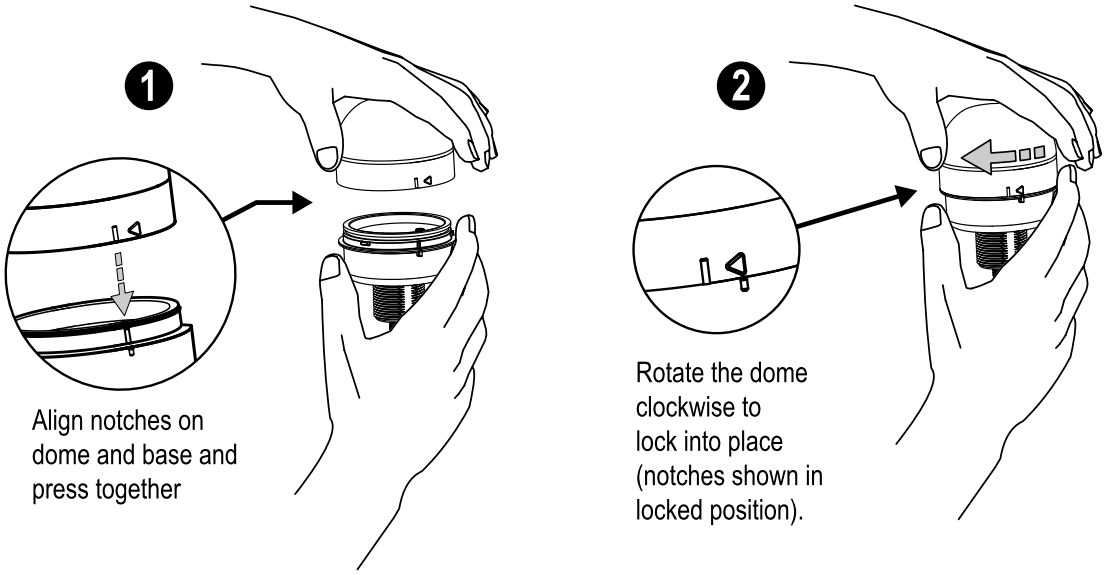
p/n: 192534 Rev. H

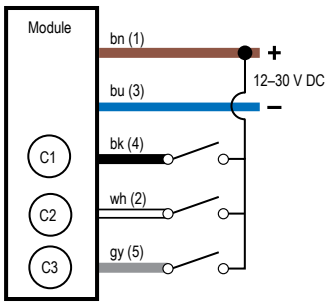
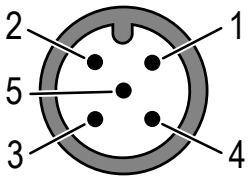
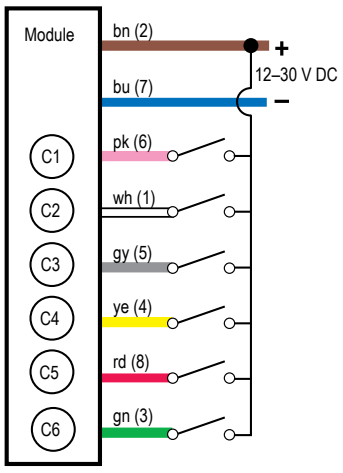
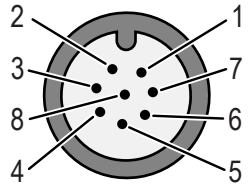
ПРОМЭЛЕКТРОНИКА/ sales@prom-elec.com

Installation Instructions

Assembling the K70



Wiring

Sourcing (PNP) Input	M12 Male Pinouts	Key
		1 = brown 2 = white 3 = blue 4 = black 5 = gray C1 = Module 1 C2 = Module 2 C3 = Module 3
		1 = white 2 = brown 3 = green 4 = yellow 5 = gray 6 = pink 7 = blue 8 = red (event counter input, if enabled) C1 = Module 1 C2 = Module 2 C3 = Module 3 C4 = Module 4 C5 = Module 5 C6 = Module 6

Input wires C1 through C6 can be used to either control the light segments or can be configured as external PNP Inputs. Refer to the DIP switch settings for configuration instructions.

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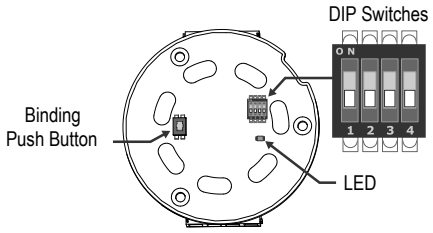
Configuration Instructions

Set the Radio Module DIP Switches

Before applying power to the device, set the radio module's DIP switches. Default configurations are noted with (*).



DIP Switch 1: Radio Transmit Power	900 MHz Models	2.4 GHz Models
OFF *	500 mW (27 dBm) operation	Disabled
ON	250 mW (24 dBm) operation	

The 900 MHz radios have a high output option that will transmit at 500 mW (27 dBm). The low output option transmits at 250 mW (24 dBm). The 250 mW mode reduces the radio's range but improves the battery life in short-range applications. For 2.4 GHz models, this DIP switch is disabled. The transmit power for 2.4 GHz is fixed at about 65 mW EIRP (18 dBm).

DIP Switch 2: Input Wires	900 MHz Models and 2.4 GHz Models
OFF *	Input wires control lights
ON	Disables wired input control of lights and converts wires to auxiliary Inputs

If there are no lights at the end of the input wires to turn on, the inputs still function as a sourcing input.

DIP Switch 3: Event Counter	900 MHz Models and 2.4 GHz Models
OFF *	Default I/O operation
ON	Configure input 5 as a 32-bit synchronous counter at a maximum frequency of 20 Hz; disable input 6 (the counter requires two registers)

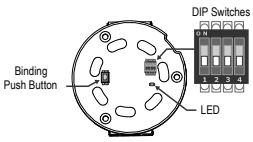
The event counter is active for RF firmware revision 5.3 or higher. In the default position (OFF), the input 1 through 6 control the tower lights. When DIP switch 3 is ON, input 5 wire is the counter input and input 6 wire is disabled. Registers 5 and 6 store the 32-bit synchronous counter count. Inputs 5 and 6 are independent from the lights and will not drive any lights they are wired to. Input wires 1 through 4 function normally.

DIP Switch 4: Bit Packing I/O	900 MHz Models and 2.4 GHz Models
OFF *	Default I/O operation
ON	Bit-packed I/O with all inputs in Modbus register 1 and all outputs in Modbus register 9. All other Modbus registers are disabled.

Bit packing is active for RF firmware revision 5.8 or higher. Bit packing uses a single register, or range of contiguous registers, to represent I/O values. This allows you to read or write multiple I/O values with a single Modbus message. Input 1 is stored in the least significant bit of register 1. Output 1 is stored in the least significant bit of register 9.

Bind the K70 to the Gateway and Assign the Node Address

Before beginning the binding procedure, apply power to all the devices.



1. Enter binding mode.
   - For housed Gateways, triple-click button 2.
   - For board-level Gateway modules, triple-click the button.
   - For DXMs, under the **ISM Radio** menu, use the down arrow button to highlight the **Binding** menu. Click **ENTER**.

   On the board modules, the green/red LED flashes. On the housed models, both LEDs flash red.
2. Assign the K70 a Node address using the Gateway's rotary dials or the DXM's arrow keys.
   - On a Gateway: Use the left rotary dial for the left digit and the right rotary dial for the right digit. For example, to assign your K70 to Node 01, set the left dial to 0 and the right dial to 1.
   - On the DXM: Use the arrow keys to select the Node ID, then press **ENTER**. The display shows **Binding**.

   Valid Node addresses are 01 through 47.
3. Access the circuit board in the radio module of the K70.
4. Enter binding mode on the K70 by triple-clicking the binding button.

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The bicolor LED flashes alternately while it searches for a Gateway in binding mode. After the K70 is bound, the LED is red and green for four seconds (looks amber), then it flashes four times (looks amber). The K70 automatically exits binding mode, cycles power, and enters Run mode.

5. For DXMs, click **BACK** to exit binding for that specific Node address.
6. Label the Node with the assigned address for future references.

   This makes it easier to identify the physical Node location within a multi-Node network.
7. Reassemble the components back onto the base.
8. Repeat steps 2 through 5 for as many K70 Wireless Indicator Lights as are needed for your network.
9. After binding all K70s, exit binding mode on the Gateway.
   - For housed Gateways, double-click button 2.
   - For board-level Gateway modules, double-click the button.
   - For DXM models, click **BACK** until you return to the main menu.

LED Behavior for the One LED Nodes

Nodes do not sample inputs until they are communicating with the Gateway. The radios and antennas must be a minimum distance apart to function properly.

Recommended minimum distances are:
900 MHz radio transmitting at ≤ 250 mW: 6 feet
900 MHz radios transmitting at ≥ 500 mW: 15 feet
2.4 GHz radios transmitting at 65 mW: 1 foot

LED (Bi-color)	Node Status
Flashing green	Radio link okay
Green and red flashing alternately	In Binding mode
Both colors are solid for 4 seconds, then flash 4 times; looks amber	Binding mode is complete
Flashing red, once every 3 seconds	Radio link error
Flashing red, once every second	Device error

Modes of Operation

Node Controlled. The wireless K70 Node can be operated similar to a wired model where the individual segments are activated by a PLC or manual switch. In this scenario, the Gateway only monitors the status of the light segments. An example application would be remotely monitoring the status of one or multiple machines from a single Gateway.

Gateway Controlled. In the Gateway-controlled mode, the K70 Node only requires 10 V DC to 30 V DC power. Input signals sent from the Gateway have full control over the status of all the segments. An example application would be a call-for-parts application with a K70 Node mounted to a fork truck and the Gateway mounted in a work cell or stock room. When part pick-up or delivery is needed, the operator sends a signal to the fork truck driver. A multicolor K70 could be used when there are multiple pick-up or delivery locations.

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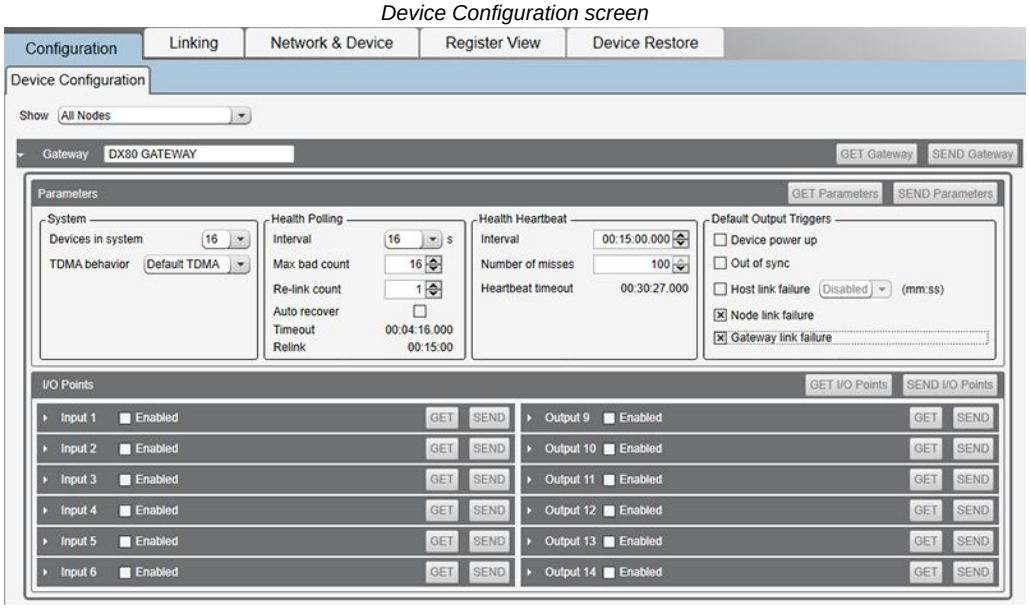
DX80 Performance Configuration Software

The configuration software offers an easy way to link I/O points in your wireless network, view I/O register values, and set system communication parameters when a host system is not part of the wireless network. The software runs on any computer with the Windows Vista, Windows 7, Windows 8, or Windows 10 operating system.

Device Configuration screen



Use a USB to RS-485 adapter cable to connect a standalone DX80 Gateway to the computer. For DXM Controllers with an internal DX80 radio, connect a computer to the DXM Controller using the supplied USB or Ethernet connection. Download the most recent revisions of the configuration software from Banner Engineering's website: https://www.bannerengineering.com/us/en/products/wireless-sensor-networks/reference-library/software.html.

The USB to RS-485 adapter cable is not required for the DXM Controller. For standalone DX80 Gateway devices use:

- USB to RS-485 adapter cable model **BWA-UCT-900** for 1 Watt radios
- USB to RS-485 adapter cable model **BWA-HW-006** for all other radios

Creating Flash Patterns

Use the DX80 Performance Configuration Software to create the flash pattern.

To create a flash pattern:

1. Enable the appropriate output if it is not yet enabled.
2. Click **GET** to download the input/output current configuration from the device to the configuration software. This automatically populates the Output configuration settings specific to the Node type.
3. For this example, configure output 9 is enabled and configured as discrete output 1 (color 1 for this K70 light). Different models may use distinct output types and I/O configuration values.
4. Define the flash pattern by selecting the appropriate checkboxes in the **Flash Pattern** section. In this example, the light will flash twice a second.
5. Click **SEND** to upload the configuration to the device.

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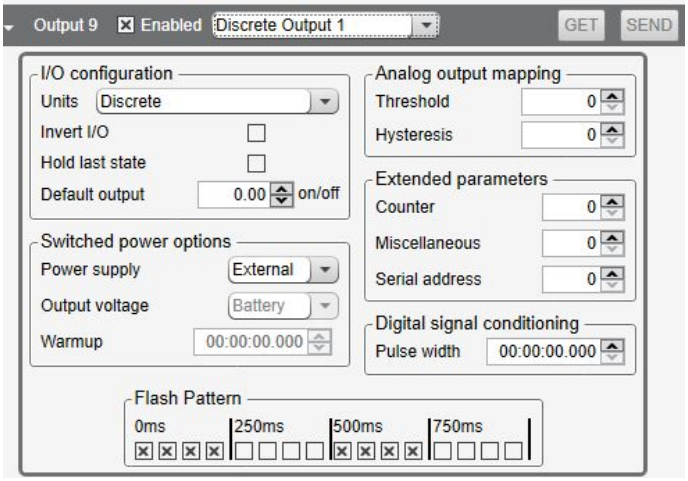
Defining a flash pattern for discrete output 1



K70 Modbus Registers

I/O	Modbus Holding Register		I/O Type	I/O Range		Holding Register Representation (Dec.)		Color #
	Gateway	Any Node		Min.	Max.	Min.	Max.	
1	1	1 + (Node# × 16)	Discrete IN 1 / Bit-packed inputs	0	1	0	1	C1
2	2	2 + (Node# × 16)	Discrete IN 2	0	1	0	1	C2
3	3	3 + (Node# × 16)	Discrete IN 3	0	1	0	1	C3
4	4	4 + (Node# × 16)	Discrete IN 4	0	1	0	1	C4
5	5	5 + (Node# × 16)	Discrete IN 5 / 32-bit event counter high word	0	1	0	1	C5
6	6	6 + (Node# × 16)	Discrete IN 6 / 32-bit event counter low word	0	1	0	1	-
7	7	7 + (Node# × 16)	Reserved					
8	8	8 + (Node# × 16)	Device Message					
9	9	9 + (Node# × 16)	Discrete OUT 9 / Bit-picked outputs	0	1	0	1	C1
10	10	10 + (Node# × 16)	Discrete OUT 10	0	1	0	1	C2
11	11	11 + (Node# × 16)	Discrete OUT 11	0	1	0	1	C3
12	12	12 + (Node# × 16)	Discrete OUT 12	0	1	0	1	C4
13	13	13 + (Node# × 16)	Discrete OUT 13	0	1	0	1	C5
14	14	14 + (Node# × 16)	Discrete OUT 14 / Zero out (clear) the counter	0	1	0	1	-
15	15	15 + (Node# × 16)	Control Message					
16	16	16 + (Node# × 16)	Reserved					

Use the DX80 Performance Configuration Software to define unique synchronous flash patterns for the lights.

K70 Wireless Indicator Specifications

Supply Voltage and Current

12 V DC to 30 V DC (Outside the USA: 12 V DC to 24 V DC, ± 10%) (1)

Indicators - Maximum current per LED color:

Blue, Green, White: 200 mA at 12 V DC; 90 mA at 30 V DC

Red, Yellow: 150 mA at 12 V DC; 75 mA at 30 V DC

900 MHz Consumption: Maximum current draw is < 40 mA and typical current draw is < 30 mA at 24 V DC. (2.4 GHz consumption is less.)

Supply Protection Circuitry

Protected against transient voltages

Indicator Response Time

Off Response: 150 µs (maximum) at 12 V DC to 30 V DC

On Response: 180 ms (maximum) at 12 V DC; 50 ms (maximum) at 30 V DC

(1) For European applications, power this device from a Limited Power Source as defined in EN 60950-1.

Radio Range

Construction

Base and cover: polycarbonate

Segment Lumens

Color	Typical Wavelength or Color Temperature	Typical Intensity (lm)
Green	525 nm	65
Red	625 nm	34
Yellow	590 nm	22
Blue	470 nm	22
White	5000 K	87

Indicators

1 to 5 colors depending on model: Green, Red, Yellow, Blue, and White

A 2 dB antenna ships with this device.

Connections

Integral 5-pin or 8-pin M12 male quick-disconnect connector, 150 mm (5.9 in) PVC-jacketed cable with a 5-pin or 8-pin M12 quick-disconnect connector, or 2 m (6.5 ft) unterminated cable, depending on model

Operating Conditions

–40 °C to +50 °C (–40 °F to +122 °F)

95% at +50 °C maximum relative humidity (non-condensing)

Environmental Rating

IP65

Vibration and Mechanical Shock

Vibration: 10 Hz to 55 Hz, 0.5 mm peak-to-peak amplitude per IEC 60068-2-6

Shock: 15G 11 ms duration, half sine wave per IEC 60068-2-27

Transmit power and range are subject to many

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factors, including antenna gain, installation methods, characteristics of the application, and environmental conditions.

Please refer to the following documents for installation instructions and high-gain antenna options.

Installing Your Sure Cross® Radios (151514)
Conducting a Site Survey (133602)
Sure Cross® Antenna Basics (132113)

Minimum Separation Distance

900 MHz radios transmitting at ≥ 500 mW: 4.57 m (15 ft) with the supplied antenna

2.4 GHz radios transmitting at 65 mW: 0.3 m (1 ft) with the supplied antenna

Spread Spectrum Technology

FHSS (Frequency Hopping Spread Spectrum)

900 MHz Compliance (SX7023EXT Radio Module)

Radio module is indicated by the product label marking

Contains FCC ID: UE3SX7023EXT

Contains IC: 7044A-SX7023EXT

2.4 GHz Compliance (SX243 Radio Module)

Radio module is indicated by the product label marking

Contains FCC ID: UE3SX243

Radio Equipment Directive (RED) 2014/53/EU

Contains IC: 7044A-SX243

Radiated Immunity HF

10 V/m (EN 61000-4-3)

Link Timeout (Performance)

Gateway: Configurable via User Configuration Software

Node: Defined by Gateway

Certifications

CE/UKCA approval only applies to 2.4 GHz models

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Park Lane, Culliganlaan 2F bus 3
1831 Diegem, BELGIUM

Turck Banner LTD Blenheim House
Blenheim Court
Wickford, Essex SS11 8YT
GREAT BRITAIN

c UL us LISTED

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03737-22-04042

Required Overcurrent Protection

WARNING: Electrical connections must be made by qualified personnel in accordance with local and national electrical codes and regulations.

Overcurrent protection is required to be provided by end product application per the supplied table.

Overcurrent protection may be provided with external fusing or via Current Limiting, Class 2 Power Supply.

Supply wiring leads < 24 AWG shall not be spliced.

For additional product support, go to www.bannerengineering.com.

Supply Wiring (AWG)	Required Overcurrent Protection (A)	Supply Wiring (AWG)	Required Overcurrent Protection (A)
20	5.0	26	1.0
22	3.0	28	0.8
24	2.0	30	0.5

FCC Part 15 Class A for Intentional Radiators

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

(Part 15.21) Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

Industry Canada Statement for Intentional Radiators

This device contains licence-exempt transmitters(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

1. This device may not cause interference.
2. This device must accept any interference, including interference that may cause undesired operation of the device.

Cet appareil contient des émetteurs/récepteurs exemptés de licence conformes à la norme Innovation, Sciences, et Développement économique Canada. L'exploitation est autorisée aux deux conditions suivantes:

1. L'appareil ne doit pas produire de brouillage.
2. L'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

ANATEL

Este equipamento não tem direito à proteção contra interferência prejudicial e não pode causar interferência em sistemas devidamente autorizados. Para maiores informações, consulte o site da ANATEL www.gov.br/anatel/pt-br/

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Dimensions

All measurements are listed in millimeters [inches], unless noted otherwise. The measurements provided are subject to change. Dimensions for the quick disconnect model are shown.

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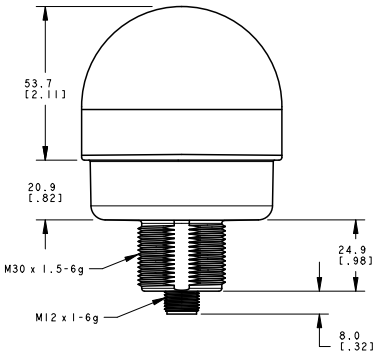
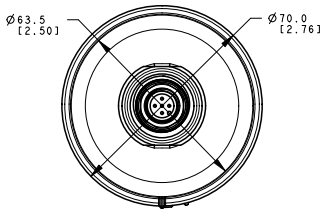
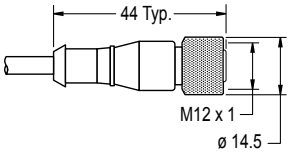
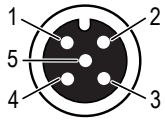
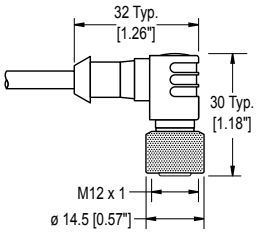
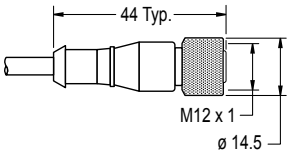
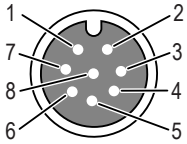
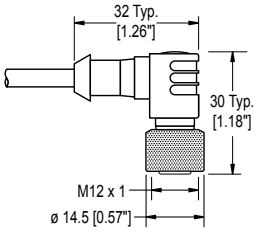




Accessories

Cordsets

5-Pin Single-Ended M12 Female Cordsets				
Model	**Length**	**Style**	**Dimensions**	**Pinout (Female)**
MQDC1-501.5	0.5 m (1.5 ft)	Straight		 1 = Brown 2 = White 3 = Blue 4 = Black 5 = Gray
MQDC1-503	0.9 m (2.9 ft)			
MQDC1-506	2 m (6.5 ft)			
MQDC1-515	5 m (16.4 ft)			
MQDC1-530	9 m (29.5 ft)			
MQDC1-560	18 m (59 ft)			
MQDC1-5100	31 m (101.7 ft)			
MQDC1-506RA	2 m (6.5 ft)	Right-Angle		
MQDC1-515RA	5 m (16.4 ft)			
MQDC1-530RA	9 m (29.5 ft)			
MQDC1-560RA	19 m (62.3 ft)			

8-Pin Single-Ended M12 Female Open-Shielded Cordsets				
Model	**Length**	**Style**	**Dimensions**	**Pinout (Female)**
MQDC2S-806	2.04 m (6.7 ft)	Straight		 1 = White 2 = Brown 3 = Green 4 = Yellow 5 = Gray 6 = Pink 7 = Blue 8 = Red
MQDC2S-815	5.04 m (16.54 ft)			
MQDC2S-830	10.04 m (32.95 ft)			
MQDC2S-850	16 m (52.49 ft)			
MQDC2S-806RA	2 m (6.56 ft)	Right-Angle		
MQDC2S-815RA	5 m (16.4 ft)			
MQDC2S-830RA	10 m (32.81 ft)			
MQDC2S-850RA	16 m (52.49 ft)			

All measurements are listed in millimeters, unless noted otherwise. The measurements provided are subject to change.

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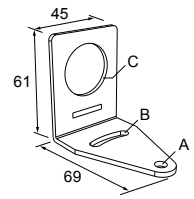
Mounting Brackets

SMB30A

- Right-angle bracket with curved slot for versatile orientation
- Clearance for M6 (¼ in) hardware
- Mounting hole for 30 mm sensor
- 12-gauge stainless steel
- CAD Files: DXF, PDF, IGS, STP

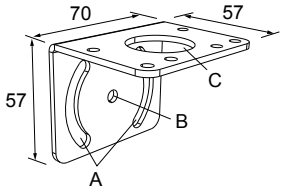
Hole center spacing: A to B=40
Hole size: A=ø 6.3, B= 27.1 × 6.3, C=ø 30.5



SMB30MM

- 12-gauge stainless steel bracket with curved mounting slots for versatile orientation
- Clearance for M6 (¼ in) hardware
- Mounting hole for 30 mm sensor
- CAD Files: DXF, PDF, IGS, STP

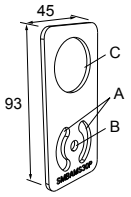
Hole center spacing: A=51, A to B=25.4
Hole size: A=42.6 × 7, B=ø 6.4, C=ø 30.1



SMBAMS30P

- Flat SMBAMS series bracket
- 30 mm hole for mounting sensors
- Articulation slots for 90°+ rotation
- 12-gauge 300 series stainless steel
- CAD Files: DXF, PDF, IGS, STP

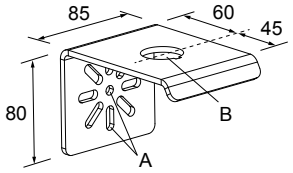
Hole center spacing: A=26.0, A to B=13.0
Hole size: A=26.8 × 7.0, B=ø 6.5, C=ø 31.0



SSA-MBK-EEC1

- Single 30 mm hole
- 8 gauge steel, black finish (powder coat)
- Front surface for customer-applied labels
- CAD Files: DXF, PDF, IGS, STP

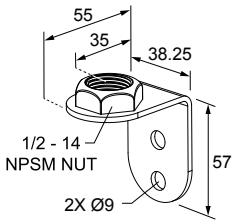
Hole size: A = ø 7 , B = ø 30



LMBE12RA35

- Direct mounting of stand-off pipe, with common bracket type
- Zinc-plated steel
- 1/2-14 NPSM nut
- Mounting distance from the wall to the center of the 1/2-14 NPSM nut is 35 mm
- CAD Files: DXF, PDF, IGS, STP

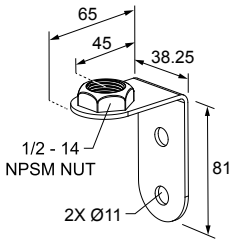
Hole center spacing: 20.0



LMBE12RA45

- Direct mounting of stand-off pipe, with common bracket type
- Zinc-plated steel
- 1/2-14 NPSM nut
- Mounting distance from the wall to the center of the 1/2-14 NPSM nut is 45 mm
- CAD Files: DXF, PDF, IGS, STP

Hole center spacing: 35.0



All measurements are listed in millimeters, unless noted otherwise. The measurements provided are subject to change.

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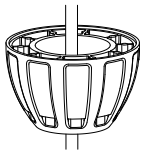
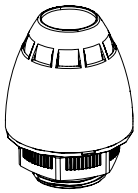
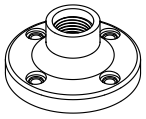
Elevated Mount System

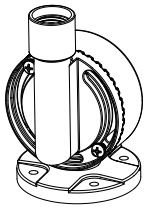
Adapter/Cover Model	Description	
SA-M30 - Black polycarbonate **SA-M30C** - Gray polycarbonate	• Streamlined black PC or Gray PC thread cover • Covers the outer M30 threads on the light's base • Typically used for the TL70 Tower Light and K90 series • Mounting hardware included • CAD files: DXF, PDF, IGS, STP	

Black Anodized Aluminum, ½ in. NPT Pipe Models	Clear Anodized Aluminum, ½ in. NPT Pipe Models	Description
SOP-E12-150A, 150 mm (6 in) long	**SOP-E12-150AC**, 150 mm (6 in) long	• Elevated-use stand-off pipe • Threaded at both ends • Compatible with most industrial environments • CAD Files: ◦ **SOP-E12-150A**: DXF, PDF, IGS, STP ◦ **SOP-E12-300A**: DXF, PDF, IGS, STP ◦ **SOP-E12-600A**: DXF, PDF, IGS, STP ◦ **SOP-E12-900A**: DXF, PDF, IGS, STP
SOP-E12-300A, 300 mm (12 in) long	**SOP-E12-300AC**, 300 mm (12 in) long	
SOP-E12-600A, 600 mm (24 in) long	-	
SOP-E12-900A, 900 mm (36 in) long	**SOP-E12-900AC**, 900 mm (36 in) long	

304 Stainless Steel, ½ in. NPT Pipe Models	Description
SOP-E12-150SS, 150 mm (6 in) long	• Elevated-use stand-off pipe • Threaded at both ends • Compatible with most industrial environments • CAD Files: ◦ **SOP-E12-150x**: DXF, PDF, IGS, STP ◦ **SOP-E12-300x**: DXF, PDF, IGS, STP ◦ **SOP-E12-600x**: DXF, PDF, IGS, STP ◦ **SOP-E12-900x**: DXF, PDF, IGS, STP
SOP-E12-300SS, 300 mm (12 in) long	
SOP-E12-600SS, 600 mm (24 in) long	
SOP-E12-900SS, 900 mm (36 in) long	

Mounting Base Model	Description	
SA-E12M30 - Black acetal **SA-E12M30C** - White UHMW	• Streamlined black acetal or white UHMW mounting base adapter/cover • Adapter from ½ in. NPSM/DN15 pipe to 30 mm (1-3/16 in) drilled hole • Mounting hardware included • CAD files: DXF, PDF, IGS, STP	

Mounting Base Model	Description	
SA-F12	• Die-cast zinc base with black paint • Elevated-use stand-off pipes (½ in, NPSM/DN15) • M5 mounting hardware and nitrile gasket included • CAD files: DXF, PDF, IGS, STP	

Mounting Base Model	Description	
SA-FFB12 - Black polycarbonate **SA-FFB12C** - Gray polycarbonate	• For use with ½ in. stand-off pipes • 110° rotation • Stainless steel hardware • CAD files: DXF, PDF, IGS, STP	

LMB Sealed Right-Angle Brackets

Model	Description	
LMB30RA - Black polycarbonate CAD Files: DXF, PDF, IGS, STP **LMB30RAC** - Gray polycarbonate CAD Files: DXF, PDF, IGS, STP	• **Direct-Mount Models** • Bracket kit with base, 30 mm adapter, set screw, fasteners, O-rings, and gaskets.	

Continued on page 11

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Continued from page 10

Model	Description	
LMBE12RA - Black polycarbonate CAD Files: DXF, PDF, IGS, STP **LMBE12RAC** - Gray polycarbonate CAD Files: DXF, PDF, IGS, STP	• **Pipe-Mount Models** • Bracket kit with base, ½-14 pipe adapter, set screw, fasteners, O-rings, and gaskets • For use with stand-off pipe (listed and sold separately)	

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Approved Antennas

BWA-9O2-C--Antena, Omni 902-928 MHz, 2 dBd, junta de caucho, RP-SMA Macho
BWA-9O5-C--Antena, Omni 902-928 MHz, 5 dBd, junta de caucho, RP-SMA Macho
BWA-9O6-A--Antena, Omni 902-928 MHz, 6 dBd, fibra de vidrio, 1800mm, N Hembra
BWA-9Y10-A--Antena, Yagi, 900 MHz, 10 dBd, N Hembra

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