Wireless Modular Tower Light

Monitor where you couldn't before: Effectively manage your factory visually without the cost of wiring.

- **Save money and time** – eliminate costly and time-consuming wire runs
- Scalable **all-in-one solution** with two-way wireless communication and visual status indication
- **Improve productivity** with a clear, easy-to-read signal tower light
- Use in harsh environments with rugged, water-resistant IP65 housing with UV-stabilized material
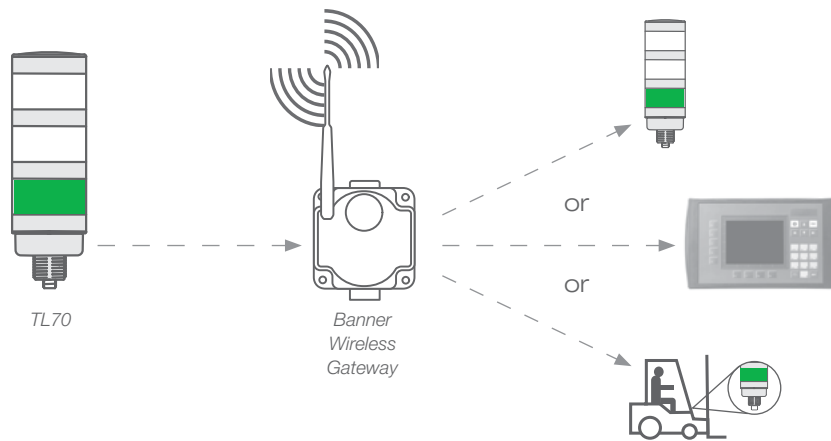- Segments appear gray when off to **eliminate false indication** from ambient light

BANNER ®

more sensors, more solutions

Eliminate the Cost of Wiring

Remote status monitoring without lengthy and expensive cable runs.

1-Way Communication

The TL70 relays machine status to a remote device

TL70

Banner Wireless Gateway

or

or

2-Way Communication

The TL70 relays a status to a remote device AND receives input from a remote device

TL70

Banner Wireless Gateway

or

or

TL70 Wireless Tower Light
- A TL70 emulates machine status and transmits updates over a wireless network
- A remote TL70 indicator receives the updates and displays the appropriate status, enabling remote monitoring without requiring any cable runs

PLC or HMI
- Machine status updates are transmitted by the TL70 over a secure wireless network
- Status updates are received by the device, triggering an action or prompting a response from an operator at a workstation away from the machine
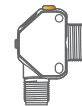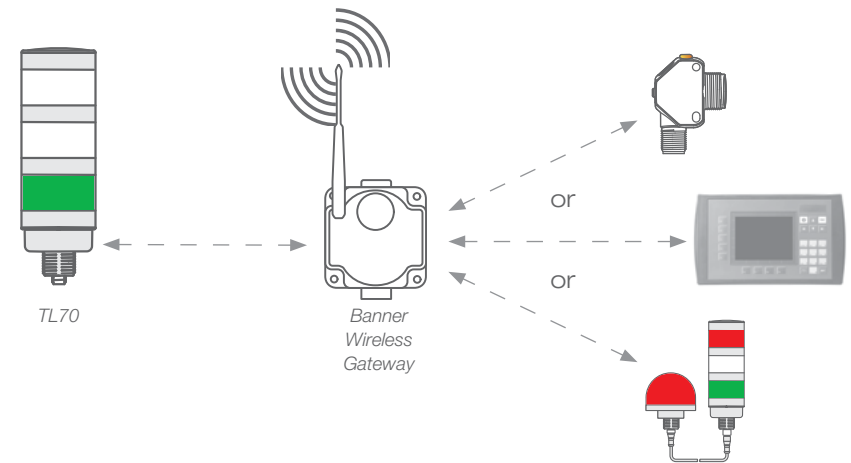
Mobile Equipment
- Status updates are communicated over a robust wireless network
- A device installed on mobile equipment receives updates from the TL70
- Operators can respond quickly to changing conditions from the mobile equipment

Machine or Sensor Input
- Status updates are transmitted to the TL70 indicator
- The TL70 receives the updates and displays the appropriate status, providing at-a-glance status information

PLC or HMI
- Conditions are communicated by the TL70 to a device
- A response from the device is transmitted back to the TL70 indicator
- The TL70 displays the updated status, providing an easy-to-see acknowledgement of any action
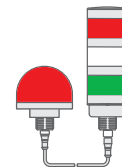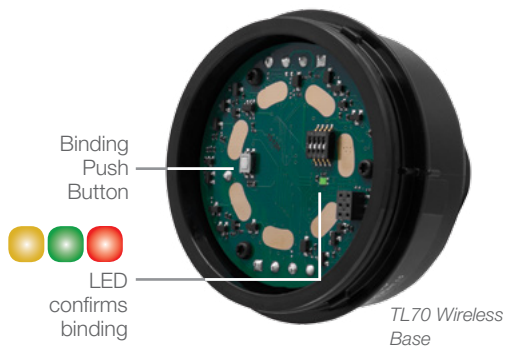
Personnel Input
- A change in status initiated by an operator is transmitted over the wireless network
- An operator at the receiving device acknowledges the status update
- The updated status is displayed by both TL70s, enabling visual communication between stations

The Easiest Tower Light to Install

The TL70 tower light design is user friendly with just a few easy steps to complete installation.

1. Bind Base to Gateway

- Enter binding mode on TL70 with simple push button
- Scalable up to 47 Nodes per Gateway
- Easy-access dials to assign Node(s) address

Binding Push Button

LED confirms binding

TL70 Wireless Base

LED confirms status

Rotary dial for easy binding

Banner Wireless Gateway

2. Build Light Segments

- Assign module position (switches 1-6)
- Assign flash rate or audible tone (switches 7-8)

O N   DIP Switch Settings

1 2 3 4 5 6 7 8
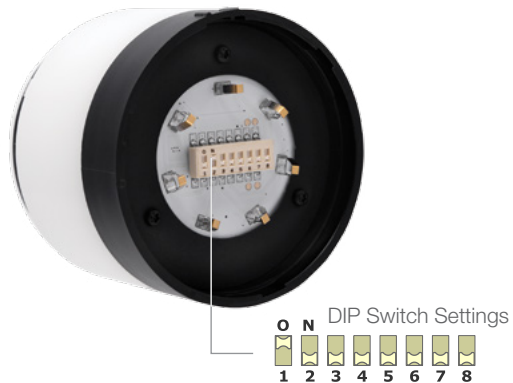
- Align segment markings
- Press together
- Twist to lock

TL70 Light Segments

3. Map Base to Gateway

- Universal configuration tool license-free software
- Assign I/O

Banner Wireless Gateway

TL70 Wireless Module Light

TL70 Wireless Modular Tower Light

Order Preassembled

Housing	Radio Band	Color/Position					Audible Alarm	Housing Color	Connection
		1	2	3	4	5			
TL70	**DXN2**	**W**	**B**	**G**	**Y**	**R**			**Q**

DXN2 = Node 2.4 GHz
Requires 2.4 GHz Gateway

DXN9 = Node 900 MHz
Requires 900 MHz Gateway

🟢 **G** = Green
🟡 **Y** = Yellow
🔴 **R** = Red
🔵 **B** = Blue
⚪ **W** = White

Blank = None
A = Audible

Blank = Black
C = Gray

Blank = 2 m Integral Cable
T = Terminal Wired
Q = Euro Integral QD
QP = Euro Pigtail QD

QD models require mating cordset

Order Components to Build your Own
Base (1) and Light Segments (2)

1

Housing	Radio Band	Connection	Housing Color
B-TL70	**DXN2**	__ **Q5**	

Base Segment

DXN2 = Node 2.4 GHz
Requires 2.4 GHz Gateway

DXN9 = Node 900 MHz
Requires 900 MHz Gateway

5 = 2 m, 5-wire Integral Cable
8 = 2 m, 8-wire Integral Cable
T = Terminal
Q5 = 5-pin Euro Integral QD (1-4 modules)
Q8 = 8-pin Euro Integral QD (5-6 modules)
QP5 = 5-pin Euro Pigtail QD (1-4 modules)
QP8 = 8-pin Euro Pigtail QD (5-6 modules)

QD models require mating cordset

Blank = Black
C = Gray

2

Housing	Color/Alarm	Housing Color
SG-TL70	— **R**	

Light Segment

🟢 **G** = Green   🔵 **B** = Blue
🟡 **Y** = Yellow   ⚪ **W** = White
🔴 **R** = Red   **A** = Audible

Blank = Black
C = Gray

PM Gateways (10-30 V dc)

Models	Description	Frequency
DX80G9M6S-PM2	4 Discrete in, 4 Discrete out 2 Analog in, 2 Analog out	900 MHz
DX80G2M6S-PM2		2.4 GHz
DX80G9M6S-PM8	6 Discrete in, 6 Discrete out	900 MHz
DX80G2M6S-PM8		2.4 GHz

Gateway Pros (10-30 V dc)

DX80P9T6S-P		900 MHz
DX80P2T6S-P	Modbus/TCP to EtherNet/IP Converter	2.4 GHz
DX80P9A6S-P		900 MHz
DX80P2A6S-P		2.4 GHz

MultiHop Modbus (FlexPower*)

DX80DR9M-H	Serial interface: user selectable between RS-485 or RS-232	900 MHz
DX80DR2M-H		2.4 GHz

*FlexPower® power options allow for 10 – 30 V DC, solar, and battery power sources for low power applications

ø 70 mm

Module 3 — Light Segment
Module 2 — Light Segment
Module 1 — Light Segment

ø 30 mm Base (Top ships with Base)
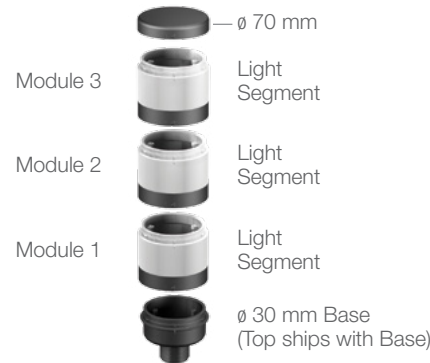
Supply Voltage	12 to 30 V dc
Construction	Bases, Covers and Light Segments: Polycarbonate
Environmental Rating	IP65
Operating Temperature	–40 to +50 °C (–40 to +122 °F)
Certifications	Approvals pending

Accessories

SMBAMS30RA70
Right-angle bracket

Cordsets

5-Pin M12/ Euro-Style Cordsets* Straight connector models listed	MQDC1-506 2 m (6.5')
	MQDC1-515 5 m (15')
	MQDC1-530 9 m (30')
8-Pin M12/ Euro-Style Cordsets* Straight connector models listed.	MQDC2S-806 2 m (6.5')
	MQDC2S-815 5 m (15')
	MQDC2S-830 9 m (30')

* For right-angle models add RA to the end of model number (example, MQDC1-506RA)
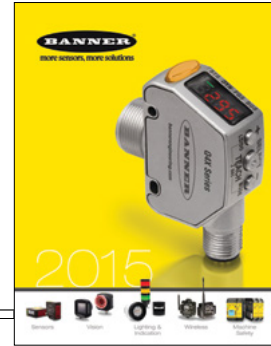
Additional Resources

Link to
data sheets

WLC90 Heavy Duty LED Light

Banner's WLC90 Heavy Duty Lights are designed to operate in harsh environments and withstand washdown and spray from water as well as many chemicals including coolants and detergents. They are compact and bright, making them an excellent choice for machining centers and food processing equipment.
- Oil, chemical, and water resistant with IP67, IP69, and IP69K ratings
- Wide operating temperature range with internal monitoring circuit that dims the LEDs to a safe level at extreme temperatures
- Three lens choices to suit many application needs
- Pan-and-tilt brackets for versatile mounting to direct the light in any direction
- Models have three discrete intensity level settings

Models	Lens Angle	Connection	Window
WLC90WL8Q	± 8 degrees †		
WLC90WL15Q	± 15 degrees	Integral 4-Pin Euro QD Side Exit	
WLC90WL30Q	± 30 degrees		
WLC90WL8RQ	± 8 degrees †		
WLC90WL15RQ	± 15 degrees	Integral 4-Pin Euro QD Rear Exit	
WLC90WL30RQ	± 30 degrees		
WLC90WGL8Q	± 8 degrees †		
WLC90WGL15Q	± 15 degrees	Integral 4-Pin Euro QD Side Exit	
WLC90WGL30Q	± 30 degrees		
WLC90WGL8RQ	± 8 degrees †		
	± 15 degrees	Integral 4-Pin Euro QD Rear Exit	
	± 30 degrees		

Link to
catalog

Link to the
Banner website

Oil, Chemical and Water Resistant
WLC90 Heavy Duty LED Light
Bright compact lights ideal for machining center food processing environments.
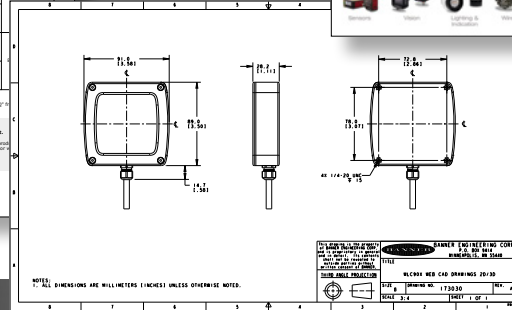
Link to
CAD files

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