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# Light Up the Visual Factory





• Give your equipment a voice with programmable colors, animations, and audible alerts that communicate every condition

## Illuminate the Work Area with LED Lighting page 12 - Boost Worker Productivity - Improve Product Quality - Increase Worker Safety Electrical Panel Lighting Machine Lighting

Sensor Machine and Call for Loading Dock/Bay Emulation Process Status Parts Communication

## pages 38, 54

Communicate Status

- Empower Operators
- Alert Supervisors
- Accelerate Resolution





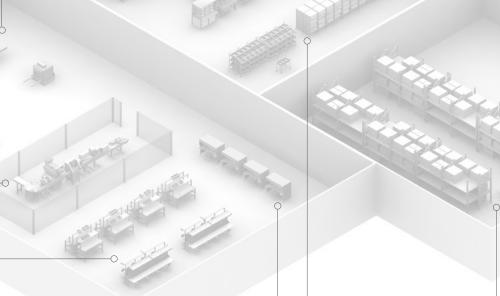
- Guide Operators
- Indicate Status Conditions





Workstation Lighting

Visual Inspection Station



Increase Efficiency with Light-Guided Part Picking

page 78

- Reduce Cycle Time
- Error-proof Assembly
- Streamline Training



Pick-to-Light for Assembly and Kitting

Put-to-Light for Warehouse and Logistics



Wireless options to avoid costly wiring runs



Variety of audible options, including programmable



options available



Multiple colors in one unit with flexible I/O configuratuion



Cascadeable lights



Magnetic mounting options for easy installation and



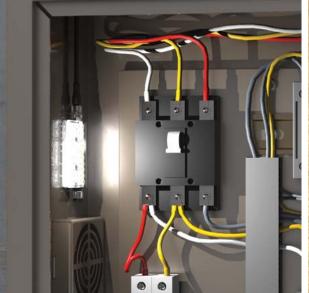
Light sections can be permanently laser marked with custom text or images















## **GS60** Guide Spotlights

- Reduce errors, improve productivity, and enhance operator interaction with increased visibility provided by the bright, focused spot
- Enhance worker comfort and safety by easily setting lighting levels to match the environment and application needs
- Reliably use in harsh environments with the long-lasting, impact resistant, durable anodized aluminum housing and polycarbonate window



## **RLS27 Pro LED Strip Lights**

- Shatterproof, UV-stabilized polycarbonate shell offers superior chemical resistance and protection to withstand harsh environments such as car washes
- Sturdy aluminum housing and robust endcaps provide dependable use outside in any weather
- High-intensity focused lens delivers long-range illumination for easy viewing outdoors
- IP67- and IP69-rated for reliable operation in demanding applications with high temperatures and high pressure washdowns
- Colors, animations, and device status on Pro models can be customized using Banner's Pro Editor software to meet any user needs



## **K30 Pro Optical Sensors**

- Pro Editor Software gives users the flexibility to define indication colors, range, and logic
- Remote input enables range definition without a controller for fast, simple setup
- Touchless activation prevents contamination and eliminates the need for physical force to operate
- Adjustable range from 20 to 1000 mm for detection where needed; ignores objects in the background
- Configurable indication states show target position/distance



### **WLB72I Industrial LED Strip Lights**

- Focused light produces "zebra" pattern on vehicle surface to help workers identify flaws
- Extended eye shield improves worker comfort and performance by preventing lateral glare in the inspection tunnel
- Plug-and-play connections simplify installation
- Adjust intensity of 4 zones independently with optional LCS10 controller



## **WLF12 Flexible Strip Lights**

- Durable, silicone-encapsulated housing provides long-lasting, worryfree performance
- Plug-and-play standard M12 connections simplify installation by eliminating soldering
- Models available with 19 colors and 15 animation effects visually communicate machine states to people working on or near equipment
- Housing lengths (from 300 to 4000 mm) can be cut in 50 mm increments to fit to exact application specifications
- Peel-and-stick installation using high-strength adhesive backing ensures quick and secure mounting



#### **K100 Pro Beacons**

- Industrial beacon delivers bright, configurable indication for OEMs and users that need visible status information
- Daylight Visible models provide bright light, even in direct sunlight
- Rugged construction provides years of uninterrupted operation
- Multiple colors in one device
- Programmable using Banner's Pro Editor Software and Pro Converter Cable (DC models)
- Rugged UV-stabilized polycarbonate base and window
- Audible models available with volume from 93-101 dB at 1 m



## **WLR95 Compact Area Lights**

- Compact footprint delivers exceptional illumination for enclosures, conveyors, machines, and vision applications
- Daisy chain multiple units effortlessly with the unique doubleended cascade feature
- When it comes to lumens per dollar spent, it outshines the competition, making it the perfect fixer for any lighting oversight
- Featuring an impressive output relative to its size, this small, affordable light fits effortlessly into any space
- Engineered with a rugged, overmolded exterior and built to withstand harsh conditions



## **TL50 Andon Tower Lights**

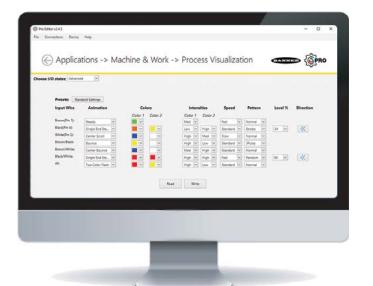
- Model options for 3 or 4 color segments, with or without omnidirectional audible
- Tower light segments appear grey when powered off, eliminating false indication from ambient conditions
- Available in two color combinations: green, yellow, and red or blue, green, yellow and red

#### and LCA130T Andon Control Box

- Rugged, cost-effective, and easy-to-install standalone lighting control box
- Integral 4 or 5 capacitive touch button controller with programmable LEDs and discrete outputs
- Two M12 connectors for easy installation

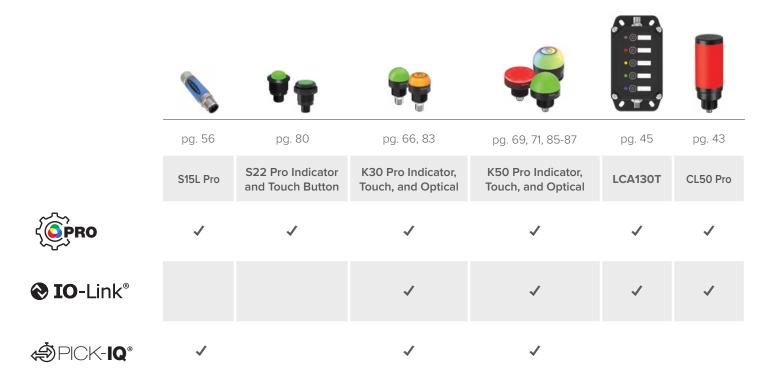


The Pro Series programmable multicolor LED devices from Banner Engineering offer limitless possibilities for advanced indication of dynamic machine states, operator interaction, and process status. The Pro Series is ideal if you are looking for advanced capabilities or flexibility beyond a traditional factory light. Whether you have discrete or protocol devices, the Pro Series use Banner's Pro Editor Software, IO-Link, or PICK-IQ™ for real-time communication across your factory.



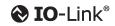
## Software for Programmable Devices

Banner's Pro Editor Software allows users to program device status, colors, animations, and much more for control via discrete inputs, bringing intuitive indication and interaction to the visual factory. Programmable RGB devices make supply chains more efficient by allowing you to standardize on one model that can be customized as needed. The applicationbased interface makes it easy to configure a device for a wide range of applications such as displaying machine warm-up time, indicating unique steps in an assembly process, showing distance and position information, and communicating multiple machine states.





allows simple configuration via discrete inputs with advanced options for colors, animations, logic, and much more.



is an open standard serial communication protocol that allows for the bi-directional exchange of data from IO-Link supported devices, lights, or indicators that are also connected through a master.



is a purpose-built, Modbus-compatible serial bus protocol that uses a Common ID to reduce the typical latency that results from polling multiple devices.



Bounce





Rotate



Timer



Flash



007

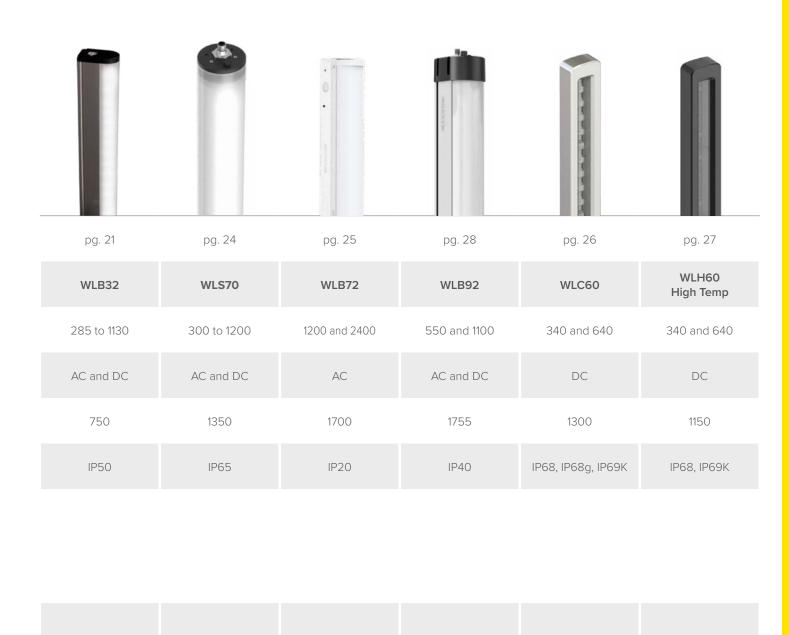
Level

Counter



# LED Task Lighting Selection Guide

				H T	
	pg. 16	pg. 17	pg. 18	pg. 20	pg. 22
Series Name	WLF12	WLS15	WLS27	RLS27	WLS28-2
Length (mm)	300 to 4000	220 to 1200	145 to 1130	285 to 2270	145 to 1130
AC/DC	DC	DC	DC	DC	DC
White Lumens per Foot (300 mm)	285	350 standard 750 high intensity	800	850	800
IP Rating	IP66, IP67, IP69K	IP66, IP67	IP66, IP67, IP69K	IP67, IP69K	Unsealed: IP50 Sealed: IP67, IP69K
RGB Programmable	<b>(See</b> pg. 60)	<b>(©PRO ● IO-Link® ●</b> PICK-IQ® (see pg. 62)	<b>(See</b> pg. 63)	(see pg. 64)	<b>⑤PRO ⑥ IO-Link®</b> (see pg. 65)
Color Options		✓	✓	✓	✓
Hazardous Location Models			HLS27		HLS28





# LED Task Lighting Selection Guide

	pg. 30	pg. 32	pg. 33
Series Name	S15WL	WL50S	WL50-3
Dimensions (mm)	ø 15	ø 50	ø 50
AC/DC	DC	DC	DC
White Lumens	55	295	300
IP Rating	IP65, IP67, IP68	IP67, IP69K	IP67, IP69K
RGB Programmable	(see pg. 56)		
Color Options		✓	







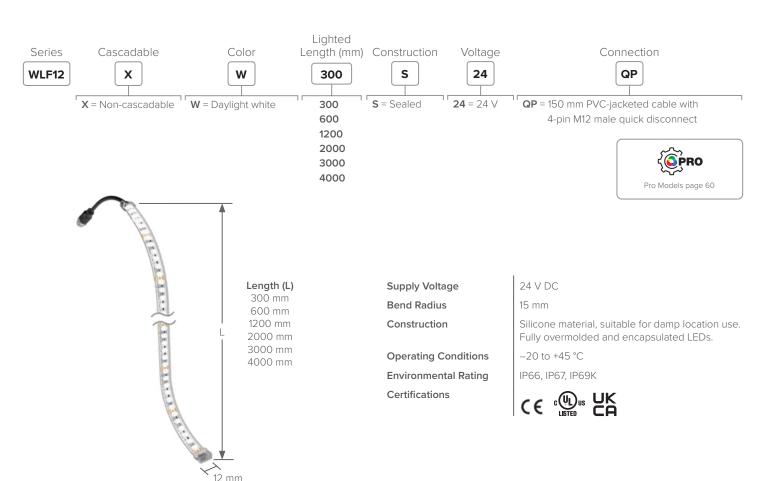
Hazardous **Location Models** 



## WLF12

## Flexible Strip Lights

- · Provides bright illumination in workspaces, cabinets, and machines with 285 lumens
- Durable, silicone-encapsulated housing and advanced circuitry provide long-lasting, worry-free performance
- The flexible, cut-to-length design and direct 24 V DC operation with M12 connector give users quality light where needed
- · Plug-and-play standard M12 connections simplify installation by eliminating soldering
- Peel-and-stick installation using high-strength adhesive backing ensures quick and secure mounting
- Six housing lengths (from 300 to 4000 mm) can be cut in 50 mm increments to fit exact application specifications



Brackets



LMBWLF12C Set of 10 clamp brackets, translucent silicone

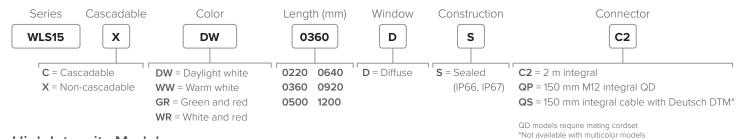


## WLS15

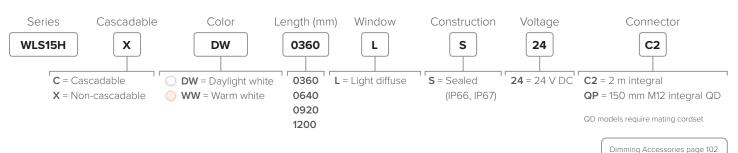
## LED Strip Lights

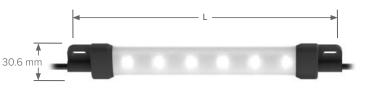
- Low-profile design for easy installation in tight spaces
- 12 or 24 V DC operation in one model
- Completely sealed with an IP67 rating for use in wet or dusty environments
- The rugged construction and polycarbonate shell resists shock and vibration while remaining lightweight
- LED lighting technology saves energy and minimizes replacement costs
- Brackets and connectors are available to keep installation simple
- Draws half the current of other lights for a low-power device and high-energy savings

## Single and Multicolor Models



## **High Intensity Models**





Lumens

Length (L) 220 mm 640 mm 360 mm 920 mm Certifications 500 mm 1200 mm

Supply Voltage

Construction

**Operating Conditions Environmental Rating** 

12 or 24 V DC nominal

Standard: 175-1400 High Intensity: 750-3000

Inner Housing: Clear anodized aluminum Outer Housing: Polycarbonate

End Caps: Polyamide

−40 to +60 °C IP66, IP67, UL 2108









Brackets

















LMBWLS15-150S

LMBWLS15

LMBWLS15MAG Magnetic Mount

LMBWLS15TF Tape

LMBWLS15TD Velcro



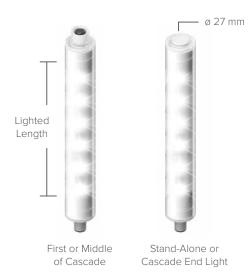




## WLS27 LED Strip Lights

- Cylindrical design, ideal for laminar airflow applications
- Rugged, water-resistant IP66, IP67, and IP69K construction
- Chemically resistant copolyester housing
- Available in eight lengths from 145 mm to 1130 mm
- Power can be daisy-chained to multiple lights
- Capability to dim lights using the wiring pinout (Hi/Low/Off)\*
- Intensity can be controlled from 0% to 100% using Pulse Width Modulation (PWM) dimming\*
- Optional snap clips for easy installation and repositioning
- Automatic temperature protection built into the unit. Above 50 °C, the light dims to manage heat and protect product lifetimez

<sup>\*</sup>Hi/low/off and PWM are for single color models only



#### Liahted Lenath (L)

2.9	20119111 (2)
145 mm	710 mn
285 mm	850 mr
430 mm	990 mr
570 mm	113∩ mr

Supply Voltage

White: 12 to 30 V DC Multicolor: 24 V DC

Lumens

White: 400-3200\*\* Multicolor: 125-2600\*\*

Construction

Housing: Copolyester

Inner Housing: Clear anodized aluminum

Outer Housing: FDA grade copolyester

Operating Conditions Single Color: -40 to +70 °C Multicolor: -40 to +50 °C

IP67, IP66, IP69K per DIN 40050

Environmental Rating

Certifications









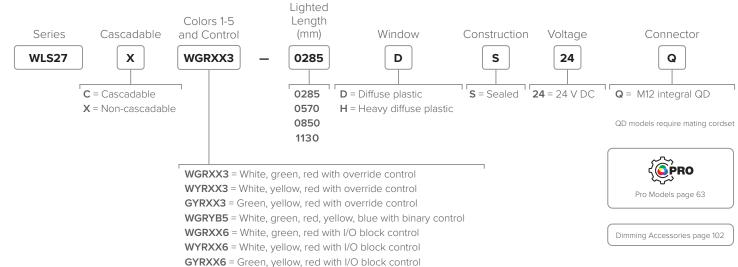
\*\*Depending on length and color

#### Lighted Length Control Series Cascadable Color (mm) Window Construction Connector W 285 Q **WLS27** X D S C = Cascadable **W** = Cool white 145 S = Sealed Blank = None Q = M12 integral QD X = Non-cascadable **WW** = Warm white 285 **PWM** = Pulse Width R = Red 430 Modulation QD models require mating cordset **D** = Diffuse plastic **G** = Green 570 dimming **B** = Blue 710 O Y = Yellow 850 990

1130

## **Multicolor Models**

**Single Color Models** 



Brackets



Clear Copolyester



LMBWLS27H





LMBWLS27T





LMBWLS27U Clear Copolyester (Also available with magnet LMBWLS27U-MAG)

LMBWLS27SP Clear Copolyester



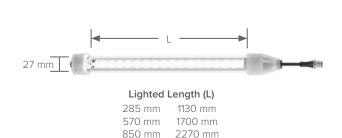
## RLS27

## Rugged LED Strip Lights

- Shatterproof, UV-stabilized polycarbonate shell offers superior chemical resistance and protection to withstand harsh environments such as car washes
- Sturdy aluminum housing and robust endcaps provide dependable use outside in any weather
- High-intensity focused lens delivers long-range illumination for easy viewing outdoors
- IP67- and IP69K-rated for reliable operation in demanding applications with high temperatures and high pressure washdowns

## Single and Multicolor Models





Supply Voltage

Lumens

Certifications

Construction

**Operating Conditions Environmental Rating** 

Single color: 12 to 30 V DC Multicolor: 24 V DC

> White: 850-6800\*\* Multicolor: 125-5200\*\*

Inner housing: clear anodized aluminum Outer housing: UV-stabilized polycarbonate Connector: Nickel-plated

-40 to +70 °C (-40 to +158 °F)

IP67, IP69K per DIN 40050-9

\*\*Depending on length and color

Brackets



LMBHLS27S

Impact absorbing brackets, set of two (included)



LMBHLS270 Impact absorbing clamp brackets, set of two (optional)



LMBWLS27H Hanging clamp brackets, set of two (optional)



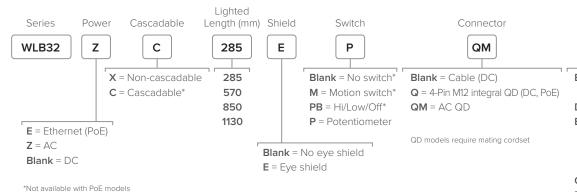
LMBWLS27U Universal clamp bracket (optional)



## WLB32

## LED Strip Lights

- Energy efficient for overall cost savings
- Integrated switch allows users to customize light levels: high/low/off switch on AC/DC models and an 11-position rotary knob on PoE models
- · Available as cascadable models for a continuous length of lighting, with a minimal amount of wiring
- Metal housing, shatterproof window
- Easy installation with snap clips, or a choice of magnetic or angle brackets
- Flexible use with AC, DC, or Power over Ethernet (PoE) models
- Motion detection models are ideal for locations that cannot use a physical switch or where the placement of the switch is not useful
- · Models featuring an eye shield block direct line of sight to increase operator comfort



Plug Type (AC Only) В

B = North & Central America. Japan, Taiwan

D = India, Sri Lanka, Nepal, Namibia EF = France, Belgium, Slovakia, Tunisia, Germany, Austria, Netherlands, Spain, S. Korea,

Turkey, Poland **C** = AC connector with flying leads

Blank = AC (no power cord)



1130 mm

570 mm

DC: 12 to 30 V DC Supply Voltage AC: 90 to 264 V AC

PoE: 42.5 to 57 DC

750-3000

5000K

Color Temperature

PoE: Dimming knob, 10 levels of intensity adjustment, off position

All other: High/low/off = 100/50/0%

Construction Housing: Anodized aluminum Window and end caps: Polycarbonate

DC: -40 to +70 °C Operating AC: -25 to +45 °C Conditions PoE: -40 to +50 °C

PoE: IP40 Environmental All other: IP50

Rating Certifications



\*Not available with PoE models



LMBWLB32

Brackets

LMBWLB32-180S

LMBWLB32MAG

Magnetic Mount





LMBWLB32U LMBWLB32UT





## WLS28-2

## LED Strip Lights

- Compact, space-saving design
- · Lensed models or choice of clear or diffuse window
- Cascade models for connecting multiple lights end-to-end, minimizing wiring
- Hi/Low/Off switch, motion switch, and non-switch models available
- Low power consumption; less than 9 watts per foot
- Optional snap clips for easy installation and repositioning
- Automatic temperature protection built into the unit. Above 50 °C, the light dims to manage heat and protect product lifetime



#### Lighted Length (L)

145 mm 710 mm 285 mm 430 mm

850 mm 990 mm 570 mm 1130 mm



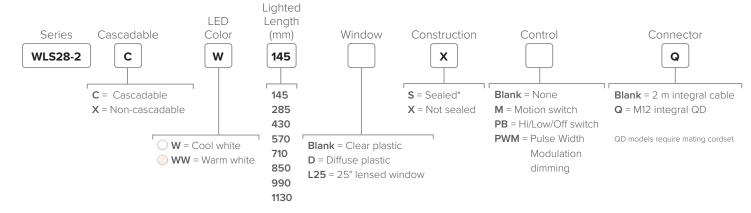


**SMBWLSMAG** Magnetic Mount Protective cover for magnet sold separately (SMBWLSMAGR).



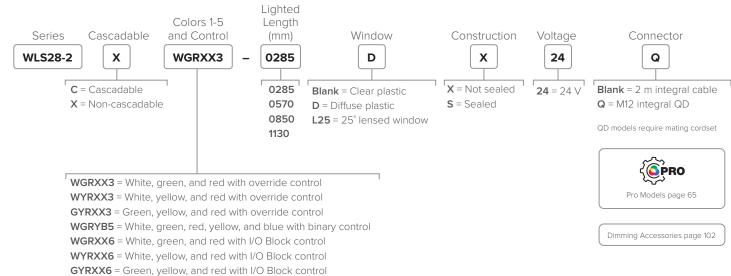
SMBWLS28SP Snap Mount

#### White Models



\*Sealed models not available with ON/OFF Switch (PB) or Motion Switch (M)

#### **Multicolor Models**



SMBWLS28RA

Top Mount

(included)

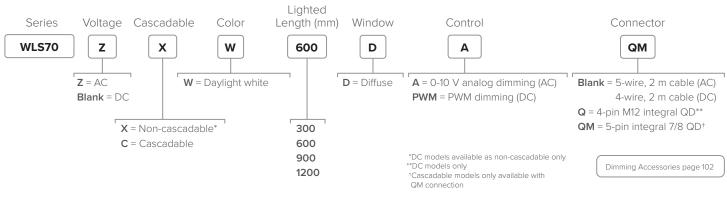
Brackets

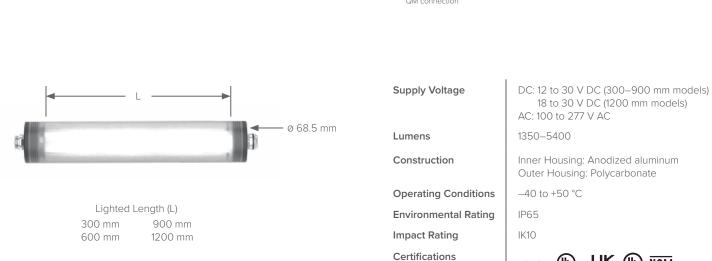


## WLS70

## Sealed High-Output Strip Lights

- Exceptionally efficient for overall energy and cost savings
- Increase worker productivity and ergonomics with bright, high-quality, uniform light
- Sturdy aluminum housing encased in a shatterproof, UV-stabilized polycarbonate shell
- Daisy-chain long runs of AC lights quickly and easily with cascade quick disconnect models
- Dimming standard on all models





Brackets



LMBWLS70H







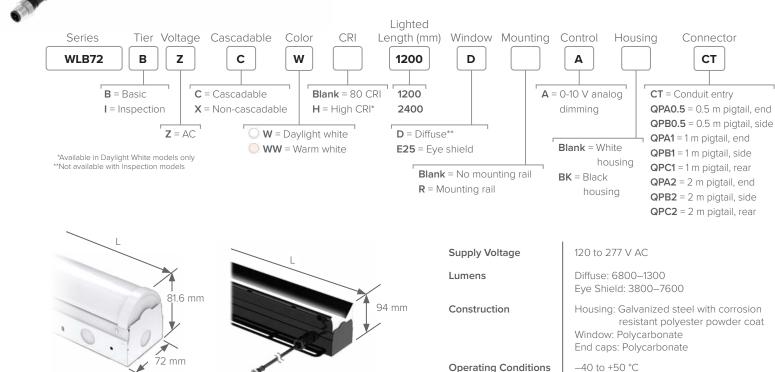
CE LUSTED CH W. NOM

# WLB72 Industrial LED Strip Lights

- Features a low total cost of ownership (TCO) and provides years of reliable, maintenance-free operation—with no bulb or ballast changes required
- Eye shield window option for superior glare control and "zebra striping" effect for inspection applications
- Durable metal housing and shatter-resistant window

throughout the entire lifespan of the device

- Models with Quick Disconnect (QD) connectors provide trouble-free installation
- Energy-efficient with an output up to 130 lumens per watt
- 0-10 V dimming so users can control light levels to their preferred brightness
- Optional LCS10 controller for plug-and-play installation



Brackets \_\_\_\_\_ Controller \_



Lighted Length (L)

1200 mm

2400 mm



**Environmental Rating** 

Certifications

Four zone control

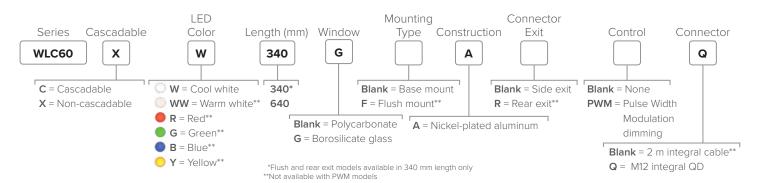
CE LISTED CH W. - NOM

BANNER



## Heavy Duty LED Strip Lights

- Oil, chemical, and water resistant with IP67, IP68G, and IP69K ratings
- High brightness paired with advanced glare-reducing optics
- Easy to install with a wide variety of mounting solutions
- Resistant to vibration and shock
- Input voltage of 12–30 V DC
- Integral 4-pin M12 quick disconnect connector
- Models have four discrete intensity level settings



WLC60 WLC60 Flush Dimming Accessories page 102 30.8 mm Supply Voltage 12 to 30 V DC 340 mm = 1300 Lumens 640 mm = 2600 340 mm Construction Housing: Nickel-plated aluminum 367 mm Window: Polycarbonate or borosilcate glass or 640 mm **Operating Conditions** −40 to +70 °C IP68, IP68G, IP69K per DIN 40050 **Environmental Rating** CE OF USE Certifications

## Brackets.







LMBWLC60RAS 4 Bracket Swivel Kit, can mount with

SMBMAG3 magnet



QD models require mating cordset

Magnetic Mount Protective cover for magnet sold separately (SMBWLSMAGR).

## WLC60

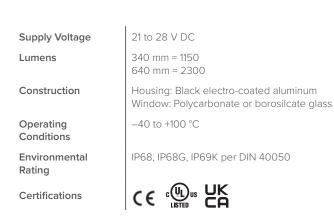
## WLH60

## High Temperature LED Strip Lights

- Approved for use in environments up to 100  $^{\circ}\text{C}$
- · IEC IP67, IEC IP68G, and IEC IP69K rated
- Rugged and durable for harsh environments
- Resists high pressure, high-temperature washdown, oils, and many chemicals
- Easy to install with a wide variety of mounting solutions
- Highly resistant to vibration and shock















LMBWLC60RAS 4 Bracket Swivel Kit, can mount with SMBMAG3 magnet



Magnetic Mount \*Do not use with stainless steel models. Protective cover for magnet sold separately (SMBWLSMAGR).





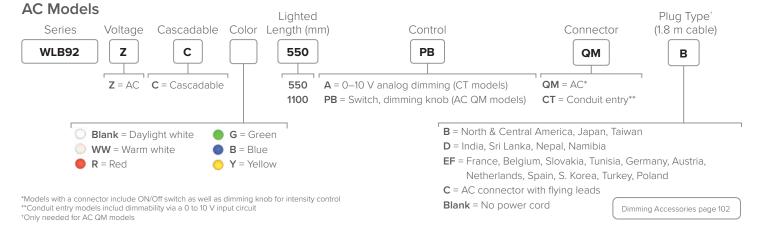
## WLB92

## Industrial LED Strip Lights

- · Increases worker productivity and ergonomics with bright, high-quality, uniform light
- Durable light stands up in your environment with a rugged metal housing and shatterproof light cover
- Save maintenance time and lower utilities expenses with long-life, energy-efficient LEDs
- Flexibility to place light where needed with AC and DC models
- Easy installation with a variety of mounting options: surface, swivel, snap, and hanging brackets



\*Models include dimming knob for manual intensity control





Supply Voltage

Lumens Construction

**Operating Conditions Environmental Rating** 

Certifications

DC: 24 V DC, AC: 100 to 277 V AC

405-7150\*

Housing: Anodized aluminum, Window: Polycarbonate

−40 to +70 °C IP40

\*Depending on length and color

#### Brackets



LMBWLB92



LMBWLB92CLIP







Suspended



LMBWLB92RAS

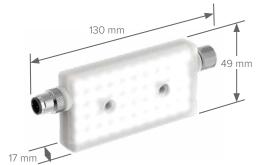


## WLR95

## Compact Area Lights

- · Compact footprint delivers exceptional illumination for enclosures, conveyors, machines, and vision applications
- Daisy chain multiple units effortlessly with the unique double-ended cascade feature
- · When it comes to lumens per dollar spent, it outshines the competition, making it the perfect fixer for any lighting oversight
- Featuring an impressive output relative to its size, this small, affordable light fits effortlessly into any space
- Engineered with a rugged, overmolded exterior and built to withstand harsh conditions





Supply Voltage Lumens

Construction

**Operating Conditions Environmental Rating** 

Certifications

12 to 30 V DC

Connector: Nickel-plated brass Housing: TPU (Removable cap covering female quick disconnect included)

−40 to +50 °C

IP65, IP67, IP68, UL Type 1









Brackets



SMBR90RA Right-angle bracket



SMBR90RAMAG Right-angle magnetic bracket



LMBR95MAG Magnetic mounting bracket kit



## S15WL

## In-Line Work Lights

- Miniature devices providing 360-degree illumination to be added easily to existing components
- All signals pass through, simplifying installation
- Designed for enclosure or area lighting
- Rugged, overmolded design meets IEC IP65, IEC IP67, and IEC IP68
- Dimmable via two-wire PWM input

Color	Connection	Model
Cool white	4-pin male/female M12 guick disconnect	S15WLWQ





Supply Voltage Lumens

Construction

**Operating Conditions Environmental Rating** 

Certifications

12 or 24 V DC

Coupling Material: Nickel-plated brass Connector Body: PVC translucent white Removable cap covering female quick disconnect included

-40 to +45 °C

IP65, IP67, IP68, NEMA/UL Type 1









## GS60 Guide Spotlights

- Reduce errors, improve productivity, and enhance operator interaction with increased visibility provided by the bright, focused spot
- Enhance worker comfort and safety by easily setting lighting levels to match the environment and application needs
- $\bullet\,$  Reliably use in harsh environments with the long-lasting, impact resistant, durable anodized aluminum housing and polycarbonate window

Color	Control	Models
Daylight White - 5000K		GS60WL4Q
Red		GS60RL4Q
Green		GS60GL4Q
Blue	High/low/off	GS60BL4Q
Yellow		GS60YL4Q
Infrared (IR)		GS60IL4Q
Ultraviolet (UV) - 395 nm		GS60UV395L4Q
Daylight White - 5000K	Adjustable PWM/strobe and 1 to 10 V dimming	GS60WL4AQ
Infrared (IR)		GS60IL4AQ
Ultraviolet (UV) - 395 nm		GS60UV395L4AQ



Supply Voltage Construction

Environmental Rating

12 to 30 V DC

Housing: Black anodized aluminum

Window: Polycarbonate

Connector: Nickel-plated quick-disconnect M30 mounting nut: Black anodized aluminum

-40 to +50 °C (-40 to +122 °F) **Operating Conditions** 

IP66, IP67

Brackets



LMBM12MAG Attaches to M12 cordset end



LMBM12SP Attaches to M12 cordset end



LMBS15MAG Magnetic Mount





LMBS15SP

## Brackets



SMB30A





SMBAMS30RA







SMB30MM

ACC-GS60 M48 x 2 front mounting knurl nut



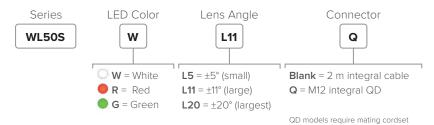


## WL50S

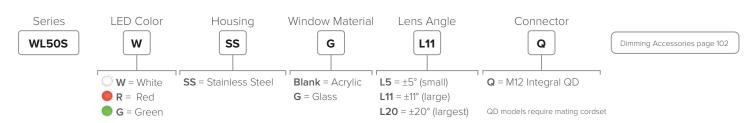
## **LED Spot Lights**

- Highly concentrated, focused light available in three colors (white, red, or green)
- · Lenses come in three angles to cover an area of concentration
- Illuminates a large area with an even pattern of light and no shadows
- Cabled and quick-disconnect models available
- 56 mm diameter with flat profile and 30 mm mounting base
- Rugged sealed housing rated to IP69K
- Available in a chemically resistant 316 stainless-steel housing for use in harsh environments

#### **Black Anodized Aluminum Models**



## Stainless Steel Models





Supply Voltage

Lumens

100-295\* Construction

Housing: Black anodized aluminum or stainless steel with FDA grade silicone gasket and Viton® o-ring seal

Window: Polycarbonate or glass window

Connector: Nickel-plated QD connector or PVC-jacketed cable

Mounting Nut: Black zinc-plated steel or stainless steel mounting nut

**Operating Conditions** −20 to +50 °C

IEC IP67, IP69K per DIN 40050 **Environmental Rating** 

Certifications

12 to 30 V DC

\*Depending on lens angle and color

#### Brackets





SMB30SC



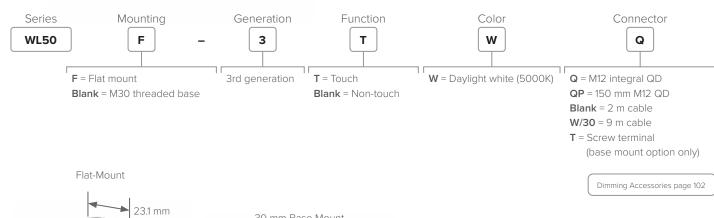
SMBAMS30P



SMBAMS30RA

## WL50-3 LED Work Lights

- Designed for desk, work station, enclosure, and small area lighting with optional flex arm mount for adjustable, industrial task lighting
- · Standard or touch models available
- Touch models can be actuated with bare hands or gloves via the integrated capacitive switch on the face of the model
- Flat-mount or 30 mm base-mount models available
- Cabled, guick-disconnect, and terminal connection models available
- High lumen output and low power consumption at less than 3 watts





Supply Voltage Lumens Construction **Operating Conditions Environmental Rating** Certifications

12 to 30 V DC 300

> Housing: Polycarbonate Connector: Nickel-plated QD or

PVC-jacketed cable

−40 to +50 °C

IP65, IP67, and IP69K per DIN 40050-9









SMB30A



SMB30MM



SMB30SC



LMB30LP



LMB30LPC



FLX18 Flex Arm Mounts See page 34 for more information





## Flex Arm Lights

## Bright LED Task Lights

- Designed for desk, work station, enclosure, and small area lighting
- Excellent, even light distribution for close-range lighting applications
- WL50 models offer touch and PWM control for on/off and dimming functions
- Touch models can be actuated with bare hands or gloves via the integrated capacitive switch on the face of the light
- Plug-and-play with 300 mm M12 cable connection directly into PSW-24-1 or other power supply (sold separately)
- 457 mm (18 in) long, vinyl-coated flexible arm



Supply Voltage

300

Lumens

Construction

Housing: Polycarbonate Flex Arm: Vinyl coated material

Operating Conditions

**Environmental Rating** 

The illuminated side of the terminal models meets IP65, IP67, and IP69K per DIN

40050-9 when installed in an enclosure. Terminal connection points meet IEC IP00.

Certifications



12 to 30 V DC

−40 to +50 °C









Supply Voltage

9 to 30 V DC

20

Lumens

Construction

Housing: Polycarbonate Flex Arm: Vinyl coated material

**Operating Conditions** 

-40 to +60 °C

**Environmental Rating** 

Indicator side of the terminal models meet IP67 and IP69K per DIN 40050-9 when installed in an enclosure. Screw connection points meet IEC IP00.

Certifications





Brackets



SMBFLXCLAMPD



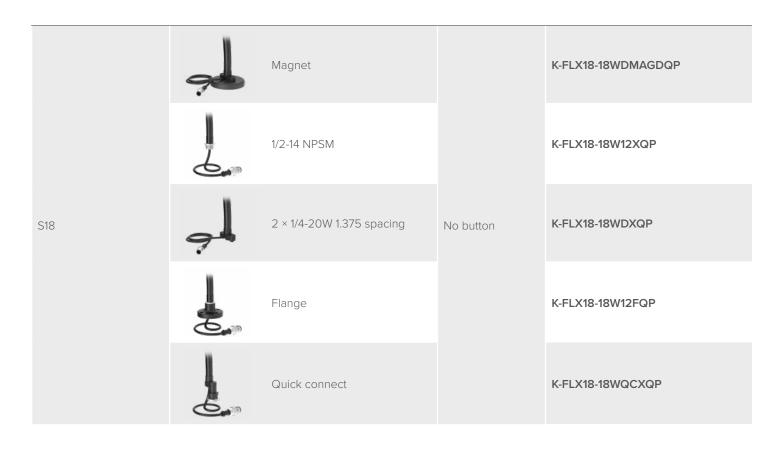




SMBFLXMAGR Protective Magnet Cover

Light	Base	Connection or Bracket	Control	Models
	<b>a</b>	Magnet	Touch	K-FLX18-50TWDMAGDQP
			No button	K-FLX18-50WDMAGDQP
	1	4/2 44 NDCM	Touch	K-FLX18-50TW12XQP
	6	1/2-14 NPSM	No button	K-FLX18-50W12XQP
WL50	1	2 × 1/4-20W 1.375 spacing	Touch	K-FLX18-50TWDXQP
	94		No button	K-FLX18-50WDXQP
	Flange  Quick connect	Flange	Touch	K-FLX18-50TW12FQP
			No button	K-FLX18-50W12FQP
			Touch	K-FLX18-50TWQCXQP
		QUICK COITIECT	No button	K-FLX18-50WQCXQP

Dimming Accessories page 102





## WLC90

## Heavy-Duty LED Lights

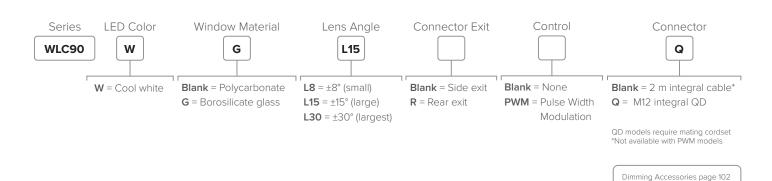
- Oil, chemical, and water resistant with IP67, IP68G, and IP69K ratings
- · Vast operating temperature range internal monitoring circuit dims the LEDs to a safe level at extreme temperatures
- Three lens choices to suit many application needs
- Pan-and-tilt brackets for versatile mounting to direct the light in any direction
- · Models have three discrete intensity level settings



## WLA-2

## LED Area Lights

- An LED dense array with high output ideal for area lighting, machine lighting, and machine vision
- Illuminates a large area with an even pattern of light and no shadows
- Rugged thermoplastic housing rated to IP69K for heavy duty washdown
- Encapsulated housing option rated IP68 for prolonged exposure to water and submersion
- Lensed models available for intense, close-range inspection or long-range projection
- Available in four sizes





12 to 30 V DC Supply Voltage 625 Lumens

Construction

Housing: Nickel-plate aluminum Window: Polycarbonate or borosilicate glass

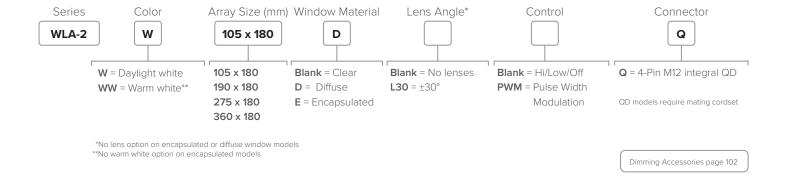
–40 to +70 °C **Operating Conditions** 

**Environmental Rating** 

Certifications

IP68, IP68G, IP69K per DIN 40050







Array Size 105 mm 275 mm

190 mm

360 mm

12 to 30 V DC Supply Voltage 800-4100\* Lumens

Construction Housing: PBT

Window: Polycarbonate or polyurethane encapsulated

Connector: Nickel-plated brass

Clear and Diffuse: -40 to +70 °C **Operating Conditions** Encapsulated: -20 to +50 °C

Clear and Diffuse: IP67 and IP69K per DIN 40050-9 **Environmental Rating** Encapsulated: IP67, IP68, and IP69K per DIN 40050-9



\*Depending on length and color

Certifications

#### Brackets





LMBWLC90PT

Side-Exit Models



Brackets





Magnetic Mount (SMBWLAMAGR Protective cover for magnet sold separately)



# Tower Lights Selection Guide

Page	pg. 40	pg. 41	pg. 44	pg. 43	pg. 45
Series Name	TL15	WLS27	TL30 Series	CL50 Series	TL50 Andon Series
Segment Diameter (mm)	15	27	30	50	50
Mounting Hole Diameter (mm)	-	-	30	30	_
AC/DC	DC	DC	DC	DC	DC
IP Rating	IP66, IP67, IP68	IP66, IP67, IP69K	IP65	IP67	IP54
RGB Programmable		<b>(⊚PRO ● IO-Link®</b> (see pg. 63)		<b>⟨©PRO ⊗ IO</b> -Link®	
Audible	✓		✓	✓	✓
Daylight Visible					
Wireless					✓
Modular	<b>✓</b>				





Construction



## **TL15**

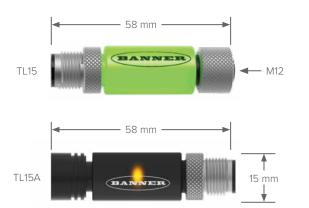
## In-Line Tower Light Indicators

- Modular 15 mm diameter indicator
- Multiple devices can be connected together to form a tower light
- Overmolded design for use in harsh environments
- Green, yellow, red, and blue models, each with a specific activation pin
- All signals pass through an M12 in-line connection, simplifying installation without
- TL15A offers additional audible capability so users can receive color status and audio alerts locally

## TL15 In-Line Tower Light Models

Color (Input Active Pin)	Models
Green (pin 4)	TL15G4Q
Yellow (pin 1)	TL15Y1Q
Red (pin 2)	TL15R2Q
Blue (pin 4)	TL15B4Q
Green (pin 1)	TL15G1Q
Yellow (pin 2)	TL15Y2Q
Red (pin 5)	TL15R5Q

Color (Input Active Pin)	Models
Red (pin 1)	TL15R1Q
Red (pin 4)	TL15R4Q
Green (pin 4), yellow (pin 1), red (pin 2)	TL15GYRQ
Blue (pin 4), green (pin 1), yellow (pin 2), red (pin 5)	TL15BGYRQ
Audible, no color (pin 5)	TL15A5Q
Audible, no color (pin 1)	TL15A1Q
Audible, no color (pin 2)	TL15A2Q



Supply Voltage **Bimodal Inputs** 

Vibration and Mechanical Shock

**Operating Conditions Environmental Rating** 

Certifications

12 or 24 V DC

PNP/NPN

Meets IEC 60068-2-6 requirements Vibration: 10 to 55 Hz, 0.5 mm amplitude, 5 minutes sweep, 30 minutes dwell Meets IEC 60068-2-27 requirements

Shock: 15G 11 ms duration, half sine wave

-40 to +50 °C

IP66, IP67, IP68, NEMA/UL Type 1





## Brackets



LMBM12MAG Attaches to M12 cordset end



LMBM12SP Attaches to M12 cordset end



LMBS15MAG Magnetic Mount

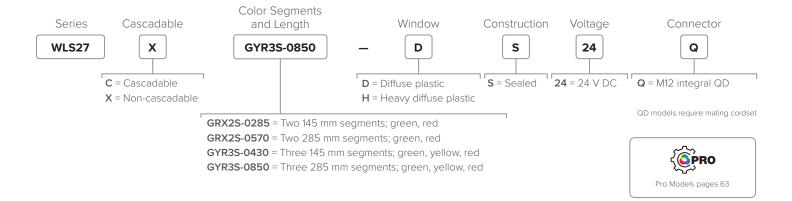


LMBS15SP

## WLS27

## Segmented LED Strip Lights

- Ultra-bright, multi-segment indicator
- Models with two or three segments available in two different segment sizes
- Rugged, water-resistant IP69K per DIN 40050-9 rating
- Power can be daisy-chained to multiple lights
- Heavy diffuse housing option provides softer, more uniform light





## Brackets



LMBWLS27H LMBWLS27EC Clear Copolyester



LMBWLS27T



LMBWLS27U Clear Copolyester (Also available with magnet LMBWLS27U-MAG)



LMBWLS27SP Clear Copolyester



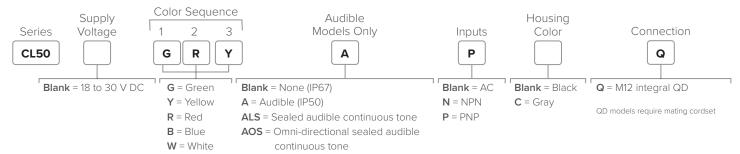


## CL50 Series

## 50 mm Multicolor Column Lights

- Rugged, versatile, and easy-to-install multicolor indicators
- Bright, easy-to-see operator guidance and indication of equipment status
- Audible models available

#### **Core Models**









## Pro Models

## Same Functionality as Core with Additional Features Below

- Programmable using Pro Editor Software or dynamically controlled with IO-Link
- Customized indication possibilities, including color, flash patterns, and light intensity
- · Audible models available with sealed, omni-directional audible element

### **Pro Models**



## Pro Models with IO-Link





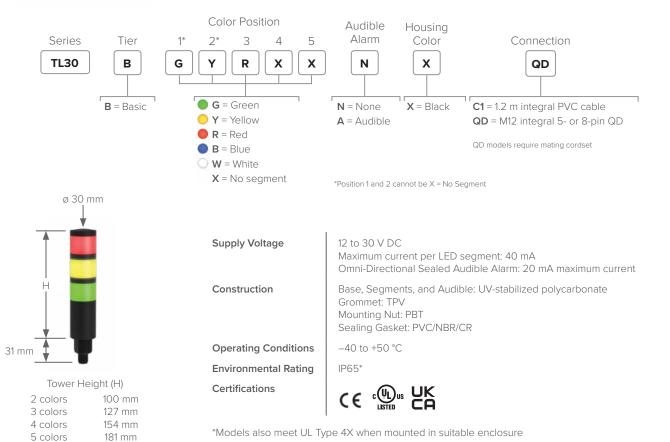
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## TL30

## 30 mm LED Tower Light with Optional Alarm

- Slim design, affordable, and easy-to-install multi-segment tower lights
- Illuminated segments provide easy-to-see operator guidance and indication of equipment status
- Devices are completely self-contained; no controller needed
- · No assembly required; mounting nut and gasket supplied





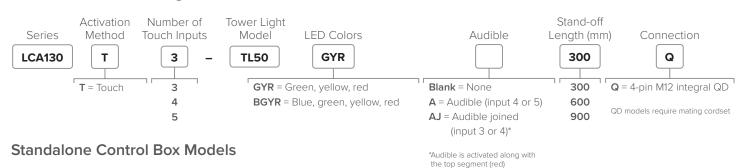


## TL50 Andon

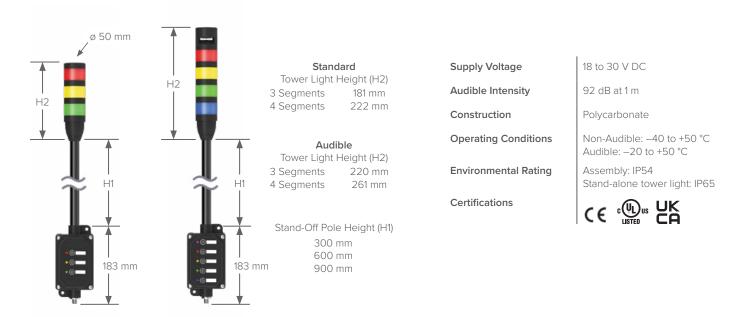
## 50 mm Pre-assembled Tower Lights

- Model options for 3 or 4 color segments, with or without omnidirectional audible
- Tower light segments appear grey when powered off, eliminating false indication from ambient conditions
- Available in two color combinations: green, yellow, and red or blue, green, yellow and red
- Simple to install, pre-assembled devices that are available in 3 lengths
- Pre-assembled control box has capacitive touch buttons as well as status LEDs to mimic the tower light status color and animation

## **Preassembled Tower Light with Control Box Models**









## TL50 Series

## 50 mm General Purpose Tower Lights

- Bright, uniform lighted segments with ten color choices available
- Available with standard, sealed, or omni-directional audible
- DC models work down to 12 volts, allowing for use in battery-powered mobile equipment
- Audible alarm: continuous, pulsed, and staccato models available
- Omni-directional audible models provide clear annunciation in the noisiest environments



#### **Core Models**

Inputs	Audible	Connection	LED Colors	Models
			Red	TL50RQ
		4-pin M12 integral QD	Green, red	TL50GRQ
	None		Green, yellow, red	TL50GYRQ
		5-pin M12 integral QD	Blue, green, yellow, red	TL50BGYRQ
Bimodal (NPN or PNP)		8-pin M12 integral QD	White, blue, green, yellow, red	TL50WBGYRQ
		4-pin M12 integral QD	Red	TL50RAQ
			Green, red	TL50GRAQ
	Standard	5-pin M12 integral QD	Green, yellow, red	TL50GYRAQ
			Blue, green, yellow, red	TL50BGYRAQ
	8-pin M12 inte	8-pin M12 integral QD	White, blue, green, yellow, red	TL50WBGYRAQ

Select models available with AC supply voltage. Search TL50Z.



Supply Voltage

Construction

Operating Conditions Environmental Rating

Certifications

Standard: 18 to 30 V DC or 100 to 240 V AC Compact: 12 to 30 V DC or 21 to 27 V AC; 100 to 240 V AC Beacon: 12 to 30 V DC, 24 V AC, or 100 to 240 V AC

Bases and Covers: ABS Light Segment: Polycarbonate

General-Purpose: -40° to +50 °C Standard and Sealed Audible: -20° to +50 °C

General-Purpose and Sealed Audible: IP67 Standard Audible: IP50







SMB30MM





SMB30A



SMBAMS30P







SA-FFB12 Flush Foldable Bracket



LMB30RA Sealed Right-Angle Brackets



Sealed Right-Angle Brackets (Tube adapter and standoff pipe required)

Note: Not all models are shown. Visit bannerengineering.com for other available models.

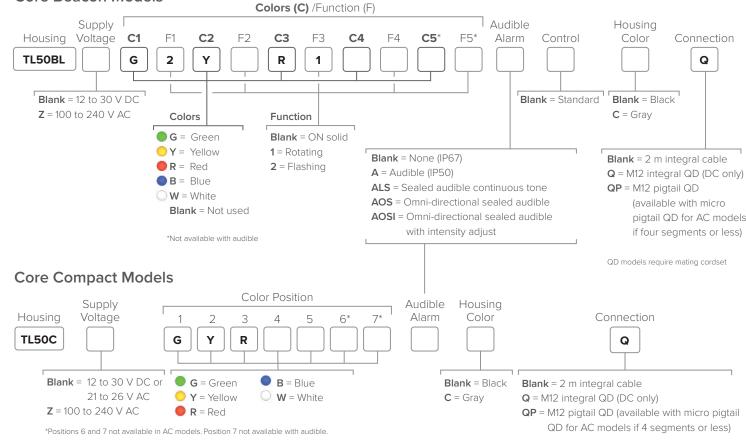
## TL50BL and TL50C Models

## 50 mm Beacon and Compact Tower Lights

- Housing is UV stabilized, making it suitable for use in outdoor environments
- Highly visible indication for indoor or outdoor applications
- Compact, stylish design with rotating and flashing options
- Compact tower lights are half the height of standard TL50 models
- · Models available with rugged, water-resistant IP67 housing







QD models require mating cordset



Laser Marking Available

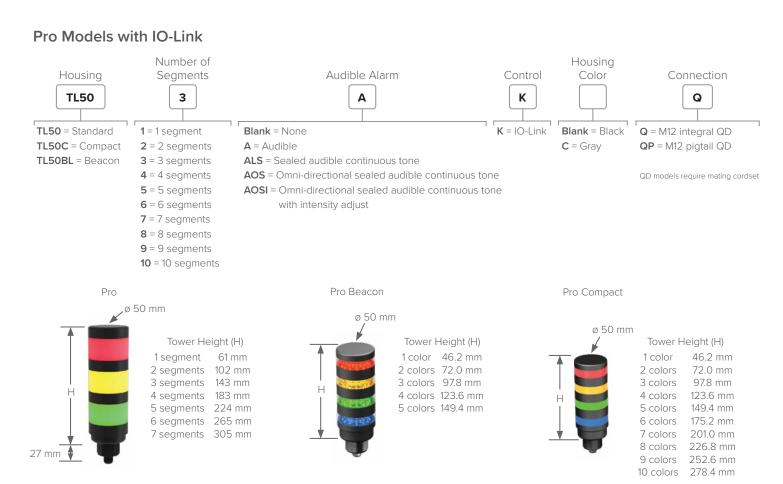


## TL50 Pro Series

## 50 mm Programmable Tower Lights

- Up to ten segments (depending on model) for advanced status signaling and high-resolution process details
- Advanced animations like level, timer, counter, and action mode provide dynamic visual response
- Parameter and process data options on IO-Link models enable fast and complete control of functionality
- Discrete models are programmable using Banner's Pro Editor Software and Pro Converter Cable
- Audible models available with standard, sealed, or omni-directional audible element
- Compact and beacon models are shorter and have a more intense display than standard models

#### **Pro Models** Number of Housing Housing Series Segments Audible Alarm Color Connection TL50P 3 Q Α TL50P = Pro Blank = Standard **1** = 1 segment Blank = None Blank = Black Blank = 2 m integral cable Q = M12 integral QD **C** = Compact 2 = 2 segments A = Audible **BL** = Beacon QP = M12 pigtail QD **3** = 3 segments **ALS** = Sealed audible continuous tone **4** = 4 segments **AOS** = Omni-directional sealed audible continuous tone QD models require mating cordset AOSI = Omni-directional sealed audible continuous tone **5** = 5 segments \*Not available with audible 6 = 6 segments with intensity adjust 7 = 7 segments\*



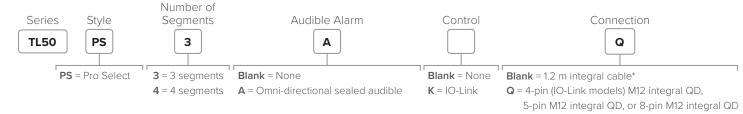


## Pro Select Models

## 50 mm Programmable Tower Lights

- Rugged and easy-to-install three- and four-segment tower lights
- Advanced animations like level, timer, counter, and action mode provide dynamic visual response
- Parameter and process data options on IO-Link models enable fast and complete control of functionality
- Programmable using Banner's Pro Editor Software and Pro Converter Cable
- Audible models available with omni-directional audible element

#### **Pro Select Models**



QD models require mating cordset \*Not available with IO-Link models





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## TL70 Series

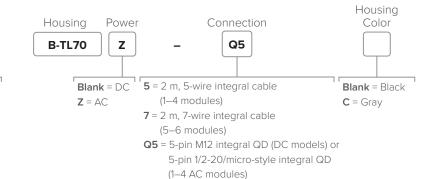
## 70 mm General Purpose Tower Lights

- · Bright, colored LEDs for long-range visibility
- Light segments appear gray when off to eliminate false indication from ambient light
- Modular design and simple wiring for fast field configuration; preassembled models also available
- Top-mounted audible modules from 75 to 101 dB, including multi-tone and programmable audible models, allow for custom alerts or announcements; all work with the same standard bases
- Wireless base and segment models quickly enable remote monitoring and control of status lights; unleash IIoT capability
- Match your machine with a choice of black or gray housing

## Segments or Segment Models

#### Housing Color/Alarm Housing Color SG-TL70 R **G** = Green O = Orange Blank = Black Y = Yellow A = Standard audible C = Gray R = Red AL = Loud audible **B** = Blue ALM = Loud multi-tone **W** = White **AP** = Programmable audible

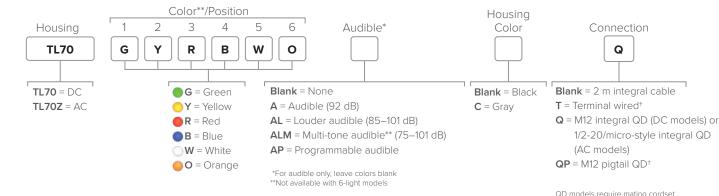
## Bases or Base Models



Q8 = 8-pin M12 integral QD+

QD models require mating cordset

#### **Preassembled Core Models**





	rower rieigni (i	'/
	AC	DC
1 color	155.6 mm	87.6 mm
2 colors	205.3 mm	137.3 mm
3 colors	255.0 mm	187.0 mm
4 colors	304.7 mm	236.7 mm
5 colors	354.4 mm	286.4 mm
6 colors	404.1 mm	336.1 mm

Tower Height (H)

## Supply Voltage Construction

Certifications

Construction Polycarbonate
Operating Conditions -40 to +50 °C
Environmental Rating IP65

C€



12 to 30 V DC or

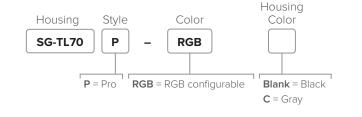
100 to 240 V AC

## Pro Models

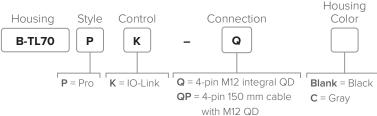
## Same Functionality as Core with Additional Features Below

- Pro series tower lights provide classic segment control as well as advanced status indication that adds nuance to the visual factory
- · Allows users to configure color, flashing, rotation, and light intensity
- Models with IO-Link communication enable almost limitless capacity for custom indication

## Pro Segments or Pro Segment Models

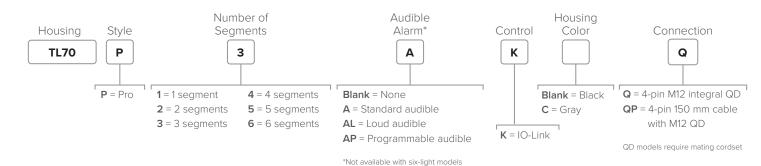


### Pro Bases or Pro Base Models



QD models require mating cordset

#### Preassembled Pro Models with IO-Link





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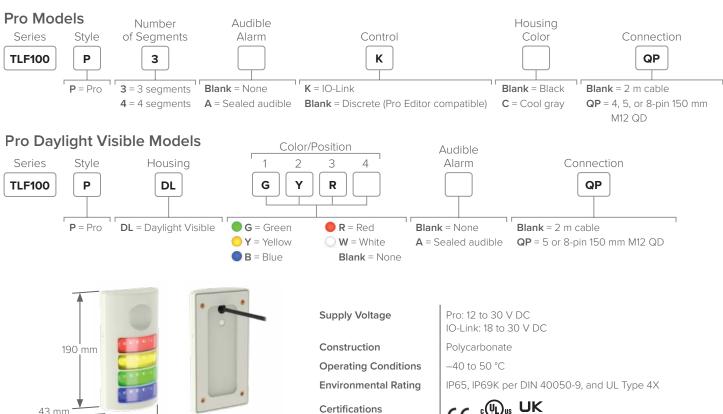
standoff pipe required)



## TLF100 Pro

## Flush Mount Tower Lights

- Rugged, versatile, and easy-to-install three and four-segment tower lights
- Flush mounting allows for easy integration to machines and equipment
- Illuminated segments provide easy-to-see operator guidance and indication of equipment status
- Audible models available with sealed audible element, fourteen selectable audible tones, and audible intensity control
- IO-Link gives full access to color, flashing, and dimming settings, as well as advanced animations like run and level modes, which provide dynamic response to changing machine conditions
- Daylight Visible models use bright, single-color LEDs to provide highly visible indication for indoor or outdoor applications



Brackets



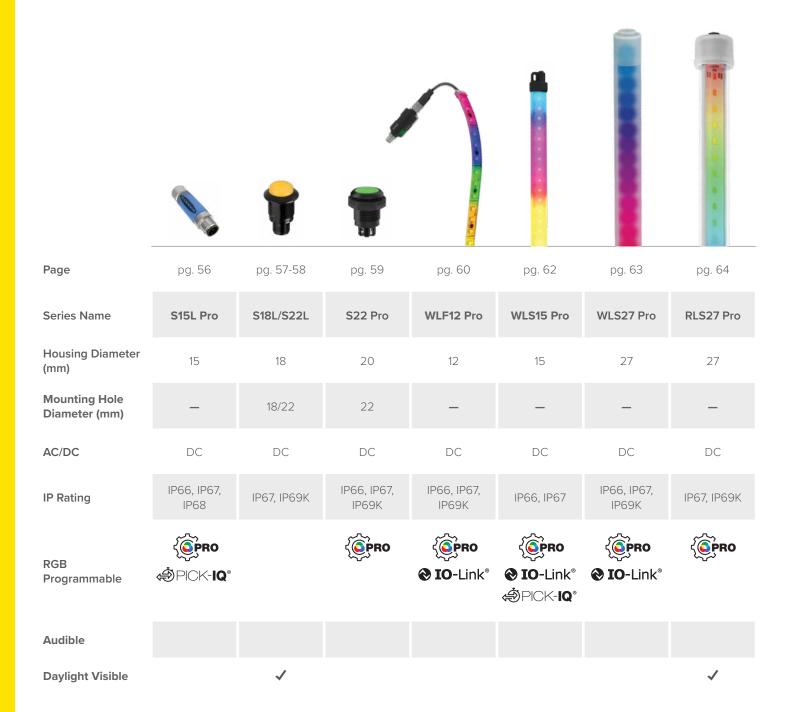








## Indicators **Selection Guide**









## S15L Series

## In-Line Sensor Status Indicators

- Pro models available with Modbus control, RGB LEDs, and five animations (steady, flash, two-sided flash, intensity sweep, and two-color shift)
- · Highly visible body allows workers to identify and troubleshoot problems faster
- environments

#### Pro Model

Housing	Style	Control	Connection	Model
S15	Pro	Serial Modbus RS-485	4-pin M12 integral male/female quick-disconnect	S15LPSQ

### Standard Models

Power ON (Color 1)	Input Active (Color 2)	Input Type	Connection	Models
	Yellow	PNP	4-pin male/female M12 quick disconnect	S15LGYPQ
0.00		NPN		S15LGYNQ
Green	Red	PNP		S15LGRPQ
		NPN		S15LGRNQ
	Green	PNP		S15LRGPQ
Yellow				S15LYGPQ



Supply Voltage

Pro: 12 to 30 V DC Standard: 10 to 30 V DC

Vibration and Mechanical Shock Meets IEC 60068-2-6 requirements Vibration: 10 to 55 Hz, 0.5 mm amplitude, 5 minutes sweep, 30 minutes dwell

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

**Operating Conditions** 

-40 to +50 °C IP66, IP67, IP68, NEMA/UL Type 1

**Environmental Rating** Certifications

CE ULSTED UK

Brackets



LMBM12MAG Attaches to M12 cordset end



LMBM12SP Attaches to M12 cordset end



LMBS15MAG Magnetic Mount



LMBS15SP

- Connect directly to or in-line with a sensor for 360-degree visibility of status
- Standard models available with two-color indication to mimic output status

- Overmolded design is reliable and rugged to withstand harsh industrial

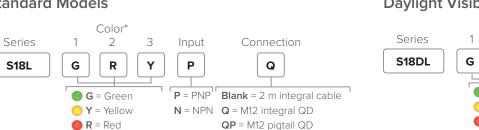
## Standard Models

■ B = Blue

○ W = White

**X** = Not used

## **Daylight Visible Models**



T = 4-screw terminals

QD models require mating cordset

S18L Series

18 mm Barrel Indicators

of ambient light

• Gasketed face flange for sealing to enclosures

· Up to three independent colors in one unit

• Daylight Visible models are also available for areas with high levels

• 10 to 30 V DC operating range allows for use in battery-powered mobile

• Multiple colors available, including green, red, yellow, blue, white, orange

• M12 connector models available for plug-and-play indication

• Translucent face appears gray when off to avoid false indication

• Terminal-wired models available to simplify panel wiring

\*Single-color models are available and should be ordered as PNP, but can be wired for either PNP or NPN input

## 2 3



Laser Marking Available



Supply Voltage Construction

**Operating Conditions** 

**Environmental Rating** Certifications

General Purpose: 10 to 30 V DC High-Intensity: 9 to 30 V DC

Housing: UV stabilized polycarbonate Mounting Nut: PBT Sealing Washer: Nitrile

General Purpose: -40 to +50 °C Other: -40 to +60 °C

IP67, IP69K, per DIN 40050











SMBAMS18RA Use with S18L



Use with S18L on 28 mm Pipe





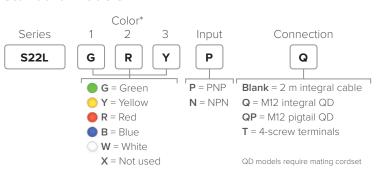


## S22L Series

### 22 mm Barrel Indicators

- Gasketed face flange for sealing to enclosures
- Daylight Visible models are also available for areas with high levels of ambient light
- M12 connector models available for plug-and-play indication
- 10 to 30 V DC operating range allows for use in battery-powered mobile
- Terminal-wired models available to simplify panel wiring
- · Up to three independent colors in one unit
- Translucent face appears gray when off to avoid false indication
- Multiple colors available, including green, red, yellow, blue, white, orange

#### **Standard Models**



#### \*Single-color models are available and should be ordered as PNP, but can be wired for either PNP or NPN input



## **Daylight Visible Models**



QD models require mating cordset

Laser Marking Available



Brackets

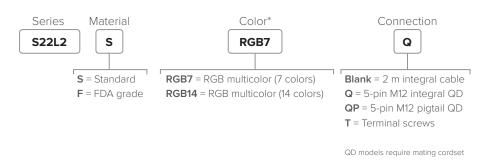




## Pro Models

## Flush Mount Programmable Indicators

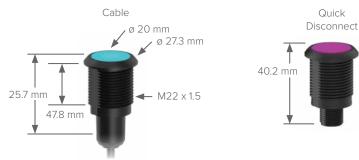
- Bright, even indication in up to fourteen colors
- Programmable using Banner Pro Editor Software and Pro Converter Cable
- Seven-color models have flashing input control
- Models constructed from FDA grade materials available for use in food and beverage applications
- Terminal connector options for fast, economical installation in panels
- Flush design matches S22 Touch buttons, see page 80



\*7 colors = Green, yellow, red, blue, white, cyan, magenta with flash input

14 colors = Above colors, plus, orange, amber, lime green, spring green, sky blue, violet, and rose

Laser Marking Available





Supply Voltage 10 to 30 V DC

Construction Housing: Polycarbonate or FDA grade plastic, depending on model

Translucent dome: Polycarbonate or FDA grade plastic, depending on model

Mounting Nut: PBT or FDA food grade plastic

**Operating Conditions** 

−40 to +50 °C

**Environmental Rating** Standard: UL Type 4x, 13

FDA Grade: UL Type 4x

Cable, Pigtail, QD models: IP66, IP67, IP69K per DIN 40050-9

Terminal: IP66, IP69K per DIN 40050-9 on front only





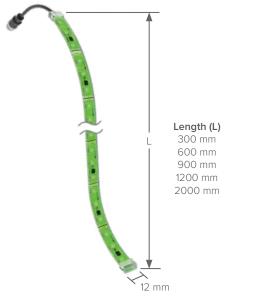


Certifications

# WLF12 Flexible Multicolor Strip Lights working on or near equipment secure mounting

- Durable, silicone-encapsulated housing provides long-lasting, worry-free performance
- Plug-and-play standard M12 connections simplify installation by eliminating soldering
- 19 colors and 15 animation effects visually communicate machine states to people
- Five standard lengths (from 300 to 2000 mm) can be cut in 50 mm increments to fit to exact application specifications
- Peel-and-stick installation using high-strength adhesive backing ensures quick and
- Available LC25 LED Controller enables simple discrete I/O or IO-Link operation and no-code configuration





Supply Voltage

Strip light: 12 V DC with Discrete LC25: 12 to 30 V DC with IO-Link LC25: 18 to 30 V DC

**Bend Radius** 

Construction

**Operating Conditions** 

**Environmental Rating** Certifications

Silicone material, suitable for damp location use. Fully overmolded and encapsulated LEDs.

−20 to +45 °C

IP66, IP67, IP69K

CE CULUS UK

Brackets

Controllers



LMBWLF12C Set of 10 clamp brackets, translucent silicone



LC25C-WLF12-RGB7Q Pro LED Controller\*



LC25C-WLF12-KQ Pro LED Controller with IO-Link\*

\*LC25 Pro LED Controller required for discrete I/O and IO-Link operation





BANNEF



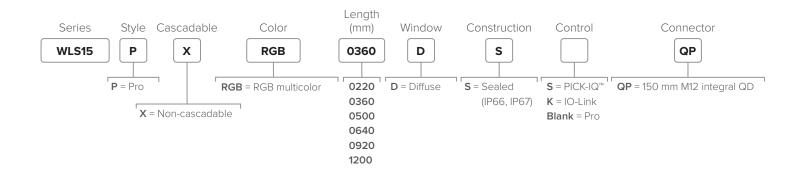
THIS END UP



## WLS15 Pro

## LED Strip Lights with Pro Editor, IO-Link, or PICK-IQ™

- Configurable, dynamic indication in a slim, sealed LED strip light
- Nineteen color options plus animations and direct sensor interface give limitless options to convey status, resulting in clear communication and improved productivity
- Available in six lengths: 220, 360, 500, 640, 920, 1200 mm
- Provides operator guidance for assembly and manufacturing processes
- Pro Editor compatibility allows for field configuration of modes, colors, animations, and more on discrete (controlled) models
- IO-Link and serial (RS-485) PICK-IQ models are available with even more capabilities such as individual LED control and the ability to divide the light into ten total segments





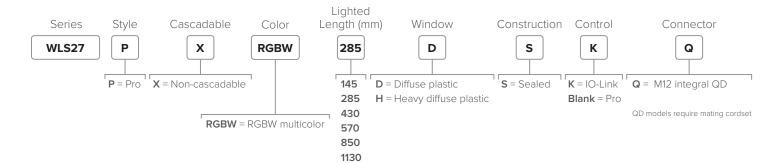
Brackets \_



## WLS27 Pro

## Programmable LED Strip Lights

- Programmable models with RGBW LEDs for use in indication, illumination, and inspection applications
- Banner's Pro Editor Software allows users to program device status, colors, and animations for control via three discrete inputs
- IO-Link helps reduce costs, increase process efficiency, and improves machine availability
- Offers illumination and multiple indication capabilities in a single device with EZ-STATUS
- Use its bright light for illumination or colors for broad status information
- Bright white light for efficiency, quality, and safety during normal operation
- Heavy diffuse window for smooth glow and close-range indication







\*



LMBWLS27U
Clear Copolyester
(Also available with magnet

**LMBWLS27SP**Clear Copolyester



Brackets

Clear Copolyester



## RLS27 Pro

## Programmable Rugged LED Strip Lights

- Shatterproof, UV-stabilized polycarbonate shell offers superior chemical resistance and protection to withstand harsh environments such as car washes
- Sturdy aluminum housing and robust endcaps provide dependable use outside in any weather
- High-intensity focused lens delivers long-range illumination for easy viewing outdoors
- IP67- and IP69K-rated for reliable operation in demanding applications with high temperatures and high pressure washdowns
- Colors, animations, and device status on Pro models can be customized using Banner's Pro Editor software to meet any user needs





### Brackets



LMBHLS27S Impact absorbing brackets, set of two (included)



LMBHLS27O Impact absorbing clamp brackets, set of two (optional)



LMBWLS27H Hanging clamp brackets, set of two (optional)

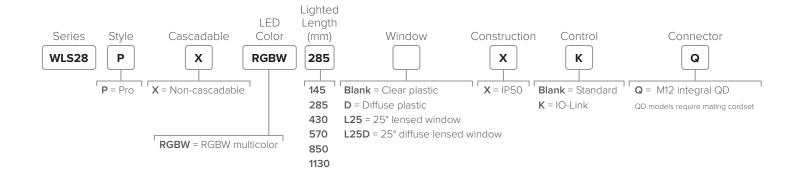


LMBWLS27U Universal clamp bracket (optional)

## WLS28 Pro

## Programmable LED Strip Lights

- High quality illumination and indication from RGBW LEDs
- · Six white color temperatures for comfort and compatibility
- Thirteen color options for varied indication and inspection uses
- IO-Link gives full access to individual LED control, color, flashing, intensity, and animation settings, as well as advanced operating modes for displaying distance, count, time, and position
- · Lensed models or choice of clear or diffuse window
- Banner's Pro Editor Software allows users to program device status, colors, and animations for control via three discrete outputs
- Offers illumination and multiple indication capabilities in a single device with EZ-STATUS





Supply Voltage 18 to 30 V DC Construction Housing: Clear anodized aluminum

End Caps: Painted zinc Clear/Diffuse Window: Polycarbonate

L25 Window: Acrylic

Operating Conditions Environmental

Certifications

-40 to +50 °C

IP66, IP67, and IP69K per DIN 40050-9 Rating







\*Depending on length and color

## **Brackets**



Top Mount

(included)

SMBWLS28RA

SMBWLS28SP Snap Mount

SMBWLS28SM **SMBWLSMAG** Side Mount Magnetic Mount separately (SMBWLSMAGR).



## K30 Series

## 30 mm Multicolor Indicators

- Bright, even indication in three standard colors
- Polycarbonate housing protects against impact and withstands high-pressure, high-temperature washdown to ensure reliable performance in challenging environments
- Simple wiring plan enables quick installation and allows users to consolidate controller outputs

#### **Core Models**

Number of Colors	Colors	Input	Connection	Models
2	Green, red, yellow	PNP	A min M42 into must OD	K30LGRYPQ
3		NPN	4-pin M12 integral QD	K30LGRYNQ

QD models require mating cordset



Supply Voltage Construction **Operating Conditions Environmental Rating** Certifications

10 to 30 V DC Polycarbonate -40 to +50 °C IP66, IP67, IP69K

## Brackets





SMB22FVK



SMB22RAVK



SMBAMS22P





LMB22LPC

## Pro Models

## Same Functionality as Core with Additional Features Below

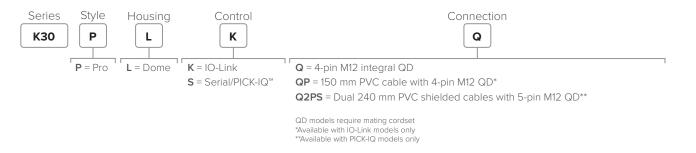
- Bright, even indication in seven standard colors, with additional color and animation options available with the exclusive Pro Editor Software
- K30 Pro devices with PICK-IQ™ and IO-Link give full access to color, flashing, rotating, and dimming settings as well as advanced animations such as dynamic sequence mode and LED control
- PICK-IQ brings faster response speed and simplified programming to Modbus RTU communication

### **Pro Models**



QD models require mating cordset

### Pro Models with IO-Link or PICK-IQ





Construction **Operating Conditions Environmental Rating** 

Certifications

Supply Voltage

10 to 30 V DC Polycarbonate

–40 to +50 °C IP66, IP67, IP69K







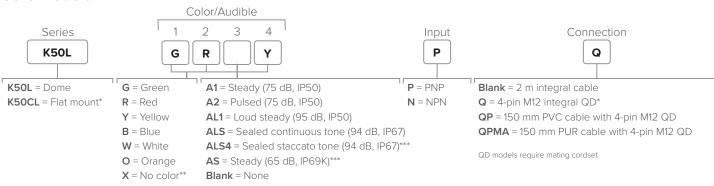
bannerengineering.com Note: Not all models are shown. Visit bannerengineering.com for other available models.



- Bright, uniform indicator light

- · Models with integrated audible alarm available
- Variety of connector options

#### **Core Models**



\*Not available with audible \*\*LED color designated with X also indicates that the associated input wire is not used. \*\*\*Not available with NPN

Supply Voltage

18 to 30 V DC Polycarbonate Construction

**Operating Conditions** 

-40 to +50 °C

**Environmental Rating** 

Standard Dome: IP66, IP67, IP69K Standard Audible Dome: IP50

Sealed Audible Dome: IP66, IP67, IP69K Compact: IP66, IP67, IP69K

Certifications

CE CULUS UK



### **Brackets**



SMB30A



SMB30FVK





SMB30RAVK





SMBAMS30P



SMBAMS30RA



SMB30MM



SMB30SC

SMB30FA

## K50 Series

## 50 mm Multicolor Indicators

- Displays up to five colors
- Compact models available for lower profile applications
- Bimodal inputs (PNP/NPN), depending on source wiring



## Pro Models

## Same Functionality as Core with Additional Features Below

- Seven default colors in one device (green, red, yellow, blue, white, cyan, magenta)
- Programmable using Banner's Pro Editor Software and Pro Converter Cable
- Compact models available for lower profile applications
- Models constructed from FDA grade materials available
- PICK-IQ<sup>™</sup> brings faster response speed and simplified programming to Modbus RTU communication
- IO-Link models give full access to color, flashing, rotating, and dimming settings as well as advanced animations such as dynamic sequence mode and

## **Pro Models**



## Pro Models with PICK-IQ



QD models require mating cordset





## K50 Beacon

### 50 mm Multicolor Indicators

- Bright indicator with individually visible LEDs
- Intense levels of light output for areas with high ambient light, including outdoor environments
- Viewable around entire perimeter
- Five default colors in one device
- Bimodal inputs (PNP/NPN), depending on source wiring
- Variety of connector options

### **Core Models**

LED Color(s)	Viewable Area	Input Type	Supply Voltage	Connection	Models
C	Perimeter view only			4-pin M12 integral quick disconnect	K50BLXGXPQ
Green	Perimeter and top view				K50BCLXGXPQ
Dad	Perimeter view only	PNP			K50BLXRXPQ
Red	Perimeter and top view		12 to 30 V DC		K50BCLXRXPQ
Valley	Perimeter view only				K50BLXYXPQ
Yellow	Perimeter and top view				K50BCLXYXPQ
Blue	Perimeter view only				K50BLXBXPQ
Blue	Perimeter and top view				K50BCLXBXPQ
\\/bi+o	Perimeter view only				K50BLXWXPQ
White	Perimeter and top view				K50BCLXWXPQ
Croop rod vallou	Perimeter view only			5-pin M12 integral quick disconnect	K50BLGRYPQ
Green, red, yellow	Perimeter and top view				K50BCLGRYPQ

 ${}^*\!AC, rotating, and strobing models available. Visit bannerengineering.com for other available models.$ 



Supply Voltage | 12 to 30 V DC |
Construction | Polycarbonate |
Operating | Conditions |
Environmental | IP67, IP69K per DIN 40050-9\*

\*Models also meet UL Type 4X and UL Type 13 when mounted in suitable enclosure. Cabled models also meet IP69K per DIN 40050-9 if the cable and cable entrance are protected from high-pressure spray.

#### Brackets



SMB30A



SMB30FVK



SMB30RAVK



SMBAMS30P

Rating



SMBAMS30RA



SMB30MM





SMB30SC

## SMB30FA



## Pro Models

## Same Functionality as Core with Additional Features Below

- Seven default colors in one device (green, red, yellow, blue, white, cyan, magenta)
- Programmable using Banner's Pro Editor Software and Pro Converter Cable
- IO-Link control allows access to full color, flashing, and dimming controls as well as advanced animations for millions of color possibilities
- PICK-IQ™ models provide faster response speed and simplified programming to Modbus RTU communication

#### **Pro Models**



### Pro Models with IO-Link or PICK-IQ





Supply Voltage 10 to 30 V DC

Construction Polycarbonate

Operating -40 to +50 °C

Conditions
Environmental Rating IP67, IP69K per DIN 40050-9\*

\*Models also meet UL Type 4X and UL Type 13 when mounted in suitable enclosure. Cabled models also meet IP69K per DIN 40050-9 if the cable and cable entrance are protected from high-pressure spray.

BANNER

70



## K70 Core

#### 70 mm General Purpose Indicators

- Bright, uniform indicator light
- All models have flashing input control
- Models are available with up to five colors in one device

Number of Colors	Colors	Input	Connection	Models
	Green			K70LGPQ
	Red			K70LRPQ
	Yellow	PNP		K70LYPQ
	Blue			K70LBPQ
1	White			K70LWPQ
1	Green			K70LGNQ
	Red		Finin M12 into aval OD	K70LRNQ
	Yellow	NPN	5-pin M12 integral QD	K70LYNQ
	Blue			K70LBNQ
	White			K70LWNQ
2	C	PNP		K70LGRPQ
2	Green, red	NPN		K70LGRNQ
2	Croop rod vollow	PNP		K70LGYRPQ
3	Green, red, yellow	NPN		K70LGYRNQ
1	Dlug groop vollow rod	PNP		K70LBGYRPQ
4	Blue, green, yellow, red	NPN	0 :- 142 : 105	K70LBGYRNQ
г	M/laita blue areas vallou rad	PNP	8-pin M12 integral QD	K70LWBGYRPQ
5	White, blue, green, yellow, red	NPN		K70LWBGYRNQ



Supply Voltage Construction Operating Conditions **Environmental Rating** Certifications

12 to 30 V DC Polycarbonate -40 to +50 °C

CE ULSTED CA

Brackets



SMB30A



SMB30FVK



SMB30RAVK



SMBAMS30P











SMB30SC









## K90 Series

#### 90 mm Multicolor Indicators

- Large, bright, uniform indicator light
- Models are available with up to five colors in one device
- Bimodal inputs (PNP/NPN), depending on source wiring
- Translucent polycarbonate dome
- Variety of connector options

#### **Core Models**

Number of Colors	Colors	Input	Connection	Models
2	Croop rod	PNP	5-pin M12 integral QD	K90LGRPQ
	Green, red	NPN		K90LGRNQ
2	Green, red, yellow	PNP		K90LGYRPQ
3		NPN		K90LGYRNQ
5	White, blue, green, yellow, red	PNP	8-pin M12 integral QD	K90LWBGYRPQ
		NPN		K90LWBGYRNQ



Supply Voltage
Construction
Operating Conditions
Environmental Rating
Certifications

12 to 30 V DC

Polycarbonate

-40 to +50 °C

IP67, UL Type 4X, UL Type 13

CE CULU

Brackets \_\_\_\_\_



SMB30A



SMB30FVK



SMB30RAVK



SMBAMS30P



SMBAMS30RA



SMB30MM



SMB30SC



SMB30FA

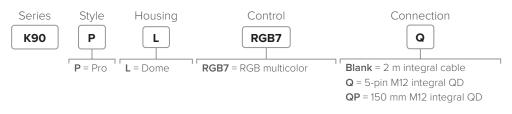
# DIS COLY WITH CLASS FRONT ON MAX. AND SOC

### Pro Models

#### Same Functionality as Core with Additional Features Below

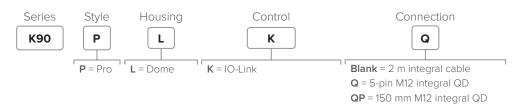
- Seven default colors in one device (green, red, yellow, blue, white, cyan, magenta)
- Programmable using Banner's Pro Editor Software and Pro Converter Cable
- IO-Link models provide access to full color, flashing, and dimming controls as well as advanced animations for millions of color possibilities

#### Pro Models

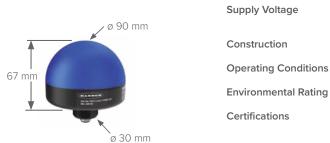


QD models require mating cordset

#### Pro Models with IO-Link



QD models require mating cordset



Pro: 10 to 30 V DC
IO-Link: 18 to 30 V DC
Polycarbonate
-40 to +50 °C
IP67, UL Type 4X, UL Type 13



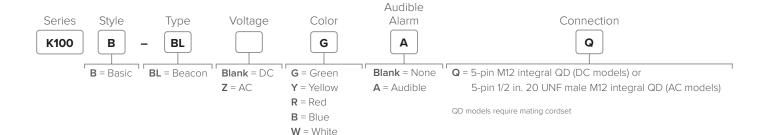
Note: Not all models are shown. Visit bannerengineering.com for other available models.

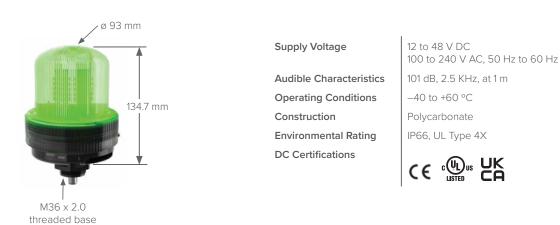


#### K100 Series

#### 100 mm Basic Beacons

- Daylight Visible beacon provides critical signaling in indoor and outdoor environments
- Single color device with five colors to choose from
- Clear lens avoids false indications
- Easy installation with brackets or on conduit and M12 guick disconnect
- Four unique animations enable intuitive indication
- Sealed audible model with continuous audible tone at 101 dB





Brackets



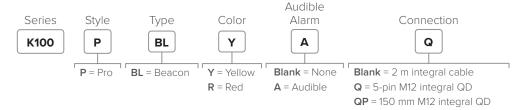
LMB36RA

#### Pro Models

#### Programmable Multicolor Indicators

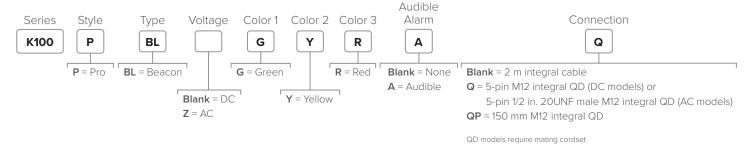
- Industrial beacon delivers bright, configurable indication for OEMs and users that need visible status information
- Daylight Visible models provide bright light, even in direct sunlight
- Rugged construction provides years of uninterrupted operation
- Programmable using Banner's Pro Editor Software and Pro Converter Cable (DC models)
- Rugged UV-stabilized polycarbonate base and window
- · Models available for indoor and outdoor applications

#### Pro Daylight Visible Single Color Models

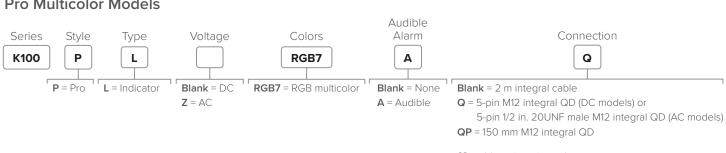


QD models require mating cordset

#### Pro Daylight Visible Three Color Models



#### **Pro Multicolor Models**





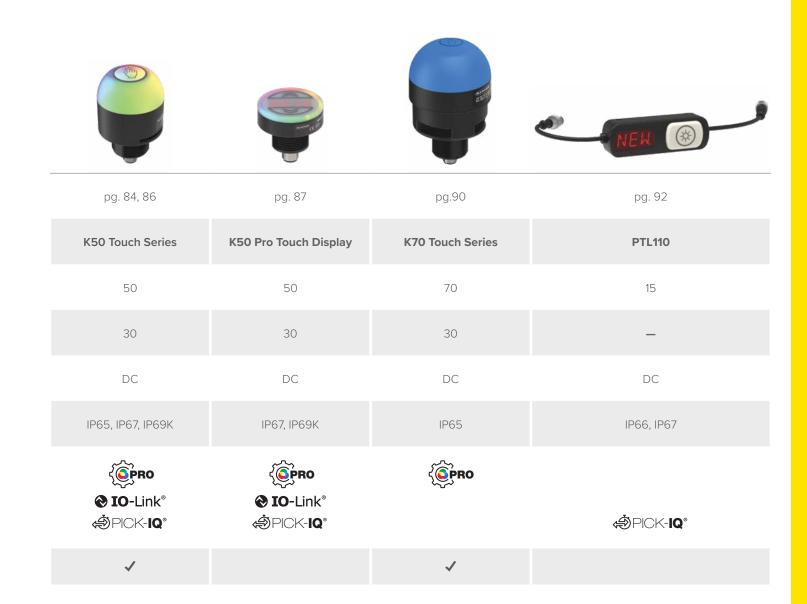
threaded base



threaded base

# Touch Button and Pick-to-Light Selection Guide

Page	pg. 80	pg. 83	pg. 81	pg. 88
Series Name	S22 Pro Touch	K30 Touch Series	K30 Pro Optical Sensor	K50 Optical Series
Indicator Diameter (mm)	22	30	30	50
Mounting Hole Diameter (mm)	22	22	22	30
AC/DC	DC	DC	DC	DC
IP Rating	IP66, IP67, IP69K	IP67, IP69K	IP65	IP67, IP69K
RGB Programmable	(©PRO	<b>⟨©PRO ② IO-Link® ③</b> PICK-IQ®	<b>(⊚PRO</b>	<b>(⊚PRO</b> <b>⊗ IO</b> -Link® <b>⋰</b> PICK-IQ®
Audible				







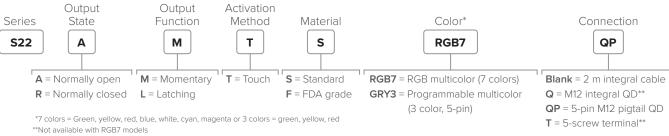


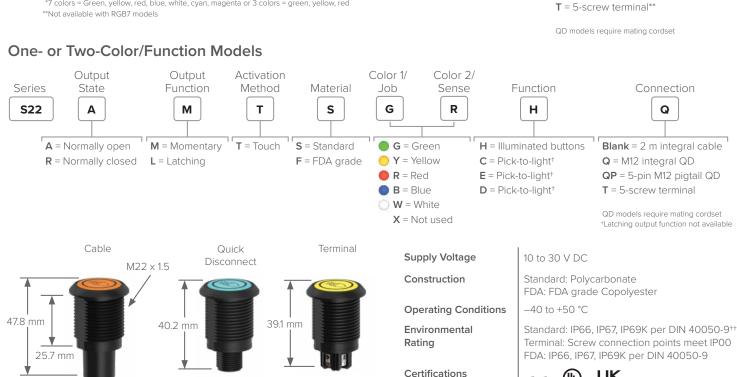
#### S22 Pro Touch

#### Programmable Flush Mount Touch Button Indicators

- Programmable using Banner Pro Editor Software and Pro Converter Cable
- Resistance to false triggering by water spray, detergents, oils, and other foreign materials
- Rugged, cost effective, and easy to install
- Up to seven independent colors in one unit
- · Ergonomically designed to eliminate hand, wrist, and arm stresses associated with repeated switch operation; requires no physical force to operate
- Can be actuated with bare hands or gloves

#### **Multicolor Models**





<sup>++</sup>Indicator side of terminal models also meet IP69K per DIN 40050-9 when mounted in suitable enclosure. Cabled Models also meet IP69K per DIN 40050-9 if the cable and cable entrance are protected from high-pressure spray.

Brackets







SMB22RAVK



SMBAMS22P





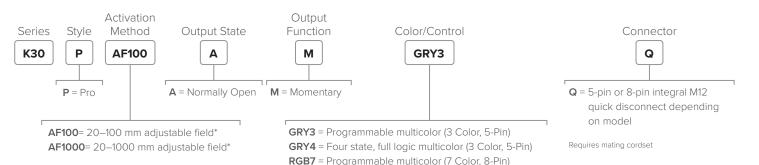
LMB22LPC

## K30 Pro Optical Sensor

#### 30 mm Programmable Indicators with Optical Sensor

- Sensing and Indication in one device
- Pro Editor Software gives users the flexibility to define indication colors, range, and logic
- Remote input enables range definition without a controller for fast, simple setup
- Touchless activation eliminates the need for physical force to operate or
- Adjustable range from 20 to 1000 mm for detection where needed, and ignores objects in the background
- Uses configurable indication states to show target position/distance

#### **Pro Models**



\*Detection distance can be adjusted through teach mode or Pro Editor. Max distance = 1000 mm.



#### **Brackets**

SMB22A



SMB22FVK



SMB22RAVK



SMBAMS22P





SMBAMS22RA

LMB22LPC

SMB22A SMB22FVK

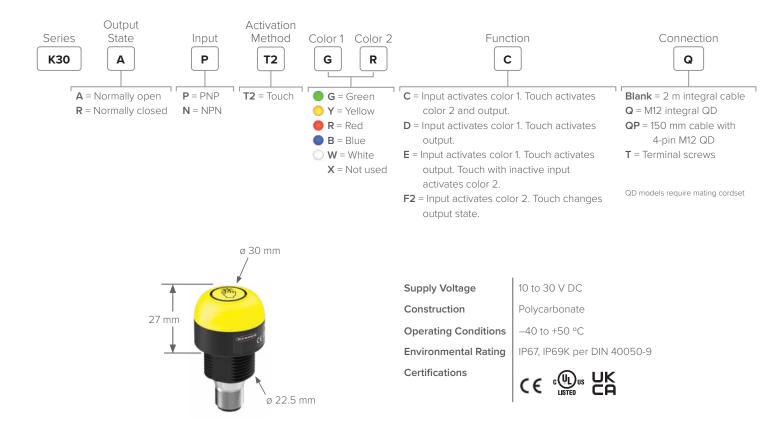


#### K30 Touch Series

#### 30 mm Multicolor Touch Button Indicators

- · Excellent immunity to false triggering by water spray, detergents, oils, and other
- One- and two-color models available to solve a variety of applications
- Devices are completely self-contained—no controller needed
- Ergonomically designed to eliminate hand, wrist, and arm stresses associated with repeated switch operation; no physical force required to operate
- · Can be actuated with bare hands or gloves

#### **Core Touch Models**



#### Brackets



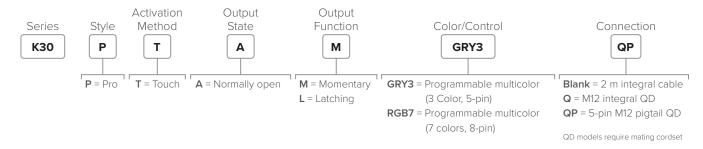


## Pro Models

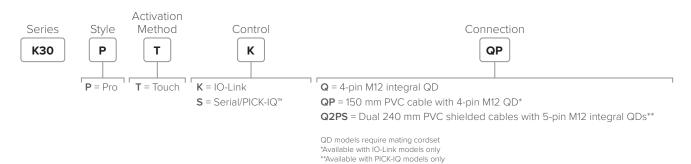
#### Same Functionality as Core with Additional Features Below

- Programmable using Banner's Pro Editor Software and Pro Converter Cable
- Up to seven colors in one device
- Adjustable sensitivity using Pro Editor Software
- PICK-IQ™ brings faster response speed and simplified programming to Modbus RTU communication
- IO-Link models give full access to color, flashing, rotating, and dimming settings as well as advanced animations such as dynamic sequence mode and LED control

#### **Pro Touch Models**



#### Pro Touch Models with IO-Link or PICK-IQ







#### K50 Touch Series

#### 50 mm Multicolor Touch Button Indicators

- Bright LED indicators combined with touch-activated switching capabilities
- Advanced touch technology allows for high immunity to water while still working with gloves
- Up to three color variations in one device (green, red, and yellow)
- Mechanical button models available for classic, tactile feedback

#### **Core Touch Models**

Colors	Function	Output	Connection	Models
Green	Input activates color 1. Touch activates output.			K50APT2GXDQ
	Input activates color 1. Touch activates color 2 and output.	PNP, N.O.	4-pin M12 integral QD	K50APT2GRCQ
Green, red	Input activates color 1. Touch activates output. Touch with inactive input activates color 2.			K50APT2GREQ
	Power activates color 1. Touch changes bipolar output state and activates color 2. Latch and momentary options.	PNP & NPN	5-pin M12 integral QD	K50ALBT2GRHQ
Green, red, yellow	Three inputs activate three colors. Color 3 overrides colors 1 and 2, and color 2 overrides color 1. Touch changes output state.	PNP, N.O.	8-pin M12 integral QD	K50APT2GRYF2Q



Supply Voltage

Construction

Operating Conditions

Environmental Rating

Certifications

12 to 30 V DC

Polycarbonate

-40 to +50 °C

IP67, IP69K per DIN 40050-9\*

Certifications

UK

CA

\*Cabled models also meet DIN IP69K if the cable and cable entrance are protected from high-pressure spray

#### Brackets



SMB30A



SMB30FVK



SMB30RAVK



SMBAMS30P



SMBAMS30RA



SMB30MM





SMB30SC SMB30FA

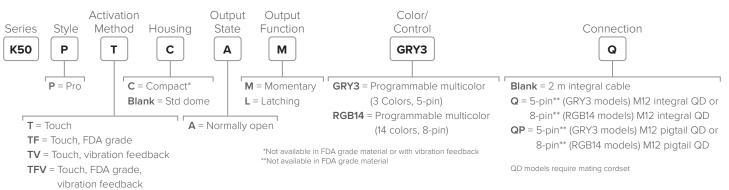
# C. S. C. S.

#### Pro Models

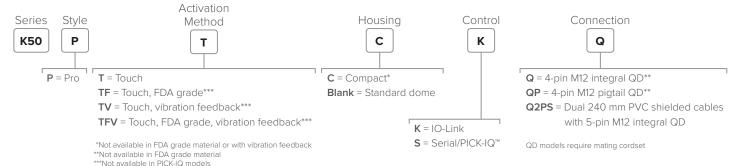
#### Same Functionality as Core with Additional Features Below

- Programmable using Pro Editor software and converter cable
- Combine proven touch technology and ruggedness with the added versatility of RGB LFDs
- Programmable using Banner's IO-Link system for customization of colors and animation
- Models made with FDA-approved materials are available for use in the food and beverage industries
- · Up to fourteen color variations in one device
- PICK-IQ™ brings faster response speed and simplified programming to Modbus RTU communication

#### **Pro Touch Models**



#### Pro Touch Models with IO-Link or PICK-IQ



#### Pro Push Button Models with IO-Link



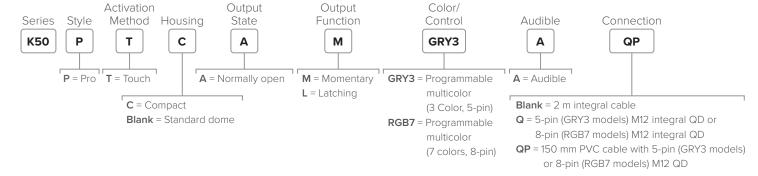


#### K50 Pro Touch with Audible

#### 50 mm Programmable Multicolor Touch Button Indicators

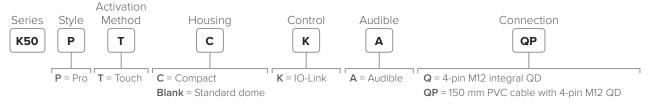
- Integral audible alarm has fourteen tones with customization and intensity control
- Excellent immunity to false triggering by water spray, detergents, oils, and other foreign materials
- Integral audible can be used as standalone indicator or as an input to touch conditions
- Can be actuated with bare hands or gloves
- Compact models available for lower profile applications
- Configurable input/output with Pro Editor Software
- IO-Link models give full access to color, flashing, rotating, and dimming settings as well as advanced animations such as dynamic sequence mode and LED control

#### **Pro Touch with Audible Models**



QD models require mating cordset

#### Pro Touch with Audible and IO-Link Models



QD models require mating cordset



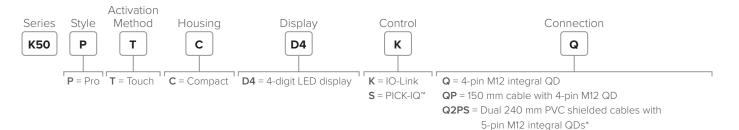


## K50 Pro Touch with Display

#### 50 mm Advanced Programmable Touch Button Indicators

- Four-digit, seven-segment LED display
- Two independent touch areas
- Clearly communicate status and receive feedback, improving throughput and productivity
- Ideal interface device for pick-to-light, condition monitoring, and general operator interaction in industrial environments
- Excellent immunity to false triggering by water spray, oils, and other foreign materials
- Can be actuated with bare hands or gloves

#### IO-Link and PICK-IQ Models



QD models require mating cordset \*Available with PICK-IQ models only



Supply Voltage

Construction

Operating Conditions
Environmental Rating

Certifications

Pro: 10 to 30 V DC IO-Link: 18 to 30 V DC

Polycarbonate

-40 to +50 °C

IP67, IP69K per DIN 40050-9\*\*





\*\*Cabled models also meet DIN IP69K if the cable and cable entrance are protected from high-pressure spray

Brackets



SMB30A















SMB30FVK SMB30RAVK SMBAMS30P SMBAMS30RA S

SMB30MM

SMB30SC

SMB30FA



- parts-verification applications
- Choose either polarized retro-reflective or fixed field models

#### **Core Optical Models**

Colors	Function	Sensing Mode/LED	Range	Output	Connection	Models
Green	Input activates color 1. Presence of hand activates output.		50 mm cutoff			K50APFF50GXDQ
	Input activates color 1. Presence of hand activates output and overrides job light.	Fixed field, infrared, 880 nm	100 mm cutoff	PNP, N.O.	4-pin M12 integral QD	K50APFF100GRCQ
Green, red	Input activates color 1. Presence of hand activates output. Presence of hand while input is inactive causes unit to light red.	880 nm				K50APFF100GREQ



Supply Voltage Construction **Operating Conditions Environmental Rating** 

Standard: IP67, IP69K per DIN 40050-9\*

12 to 30 V DC

-40 to +50 °C

Certifications

Standard: Polycarbonate

\*Cabled models also meet DIN IP69K if the cable and cable entrance are protected from high-pressure spray

#### Brackets



SMB30A



SMB30FVK



SMB30RAVK



SMBAMS30P



SMBAMS30RA



SMB30MM





SMB30SC SMB30FA

## K50 Optical Series

#### 50 mm Multicolor Touch Button Indicators



- Illuminated dome provides easy-to-see job light status

#### Pro Models

#### Same Functionality as Core with Additional Features Below

- Up to fourteen standard colors in one device
- IO-Link models enable even more color and animation customization managed dynamically by the master, plus individual LED control
- Discrete model featuring Pro Editor compatibility improves speed in deployment and machine interface. Get control of colors, logic, and outputs in a discrete controlled K50 with integrated optical sensor.
- Sequence mode can be used to indicate level, takt time, and more
- PICK-IQ™ gives full access to color, flashing, rotating, and dimming settings as well as advanced animations such as dynamic sequence mode and LED control

#### **Pro Optical Models**



#### Pro Optical Models with IO-Link or PICK-IQ



\*Cabled models also meet DIN IP69K if the cable and cable entrance are protected from high-pressure spray





### K70 Touch Series

#### 70 mm Multicolor Touch Button Indicators

- Capacitive touch technology requires no physical force to operate
- Excellent immunity to false triggering by water spray, detergents, oils, and other foreign materials
- Can be actuated with bare hands or in gloves
- Available in three color options and one-, two-, and three-color models

#### **Core Touch Models**

Colors	Function	Output	Connection	Models
Green (activated)	Momentary	PNP & NPN		K70ABT2XGHQ
Green	Job light is on while input is active. Touch activates output.		4-pin M12 integral QD	K70APT2GXDQ
Crook rod	Lab light is green while is bisput is getting. Touch gettingtes output			K70APT2GRCQ
Green, red	Job light is green while job input is active. Touch activates output.	PNP		K70APT2GREQ
	Multipurpose			K70APT2GRYF2Q
Green, red, yellow	Job light always on with job input until touched. Touch activates output and overrides job light with sense light. Touch with inactive job input activates mispick light and activates output.			K70APT2GRYC3Q



Supply Voltage **Audible Intensity** Construction **Operating Conditions Environmental Rating** Certifications

12 to 30 V DC 95-103 dB at 1 m Polycarbonate −40 to +50 °C

#### Brackets



SMB30LP



SMB30A



SMB30FVK



SMB30RAVK



SMBAMS30P



SMB30MM



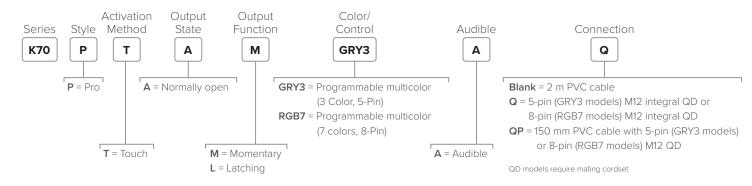
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#### K70 Pro Touch with Audible

#### 70 mm Programmable Multicolor Touch Button Indicators

- Integrated audible alarm provides additional indication and feedback for enhanced operator experience and improved productivity
- Integral audible alarm can be toggled on and off discretely and as a function of
- Twelve different tones available, including intensity and input control
- Programmable using Banner's Pro Editor Software and Pro Converter Cable

#### **Pro Touch Models**





Supply Voltage Audible Intensity Construction **Operating Conditions Environmental Rating** Certifications

12 to 30 V DC 95-103 dB at 1 m Polycarbonate -40 to +50 °C





Brackets







SMB30FVK





SMBAMS30P





SMB30LP

SMB30A

SMB30RAVK

SMB30MM

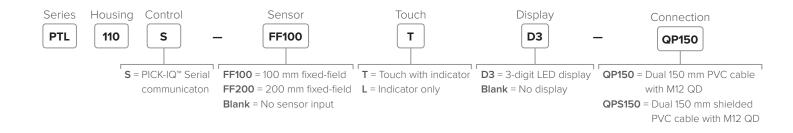
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## PTL110

#### Scalable, Versatile Pick-To-Light Devices



- Customizable pick-to-light logic with up to fourteen colors in one device
- Translucent face appears gray when off to avoid false indication
- M12 connector models for plug-and-play indication
- Wide 180° field of view
- Three-digit, fourteen-segment LED display
- Photoelectric and touch sensing options
- RS-485 Modbus communication featuring PICK-IQ™ technology for faster response speed





Supply Voltage

Communication

PICK-IQ™ is compatible with Modbus RS-485

10 to 30 V DC; 1.35 Watts max. power draw

**Connected Devices** 

DXM700 converts Modbus RTU to Modbus TCP/IP or Ethernet/IP 64 or more under standard usage with a single power supply

>200 possible depending on power supply, cable length and device usage

Construction Housing: ABS

Indicator: Polycarbonate Display Lens: Acrylic (if present)

**Operating Conditions** 

**Environmental Rating** 

Certifications





−40 to +50 °C

Brackets







and Flat Rail Mounting



LMBPTL110A45 For Slotted Extrusion and Flat Rail Mounting







# Connectivity

## Accessories

#### 4-Pin M12 (Voltage: 250 V DC/AC, Current: 4 A)

	Length	Straight	Right-Angle	P	Pinout
	1 m	MQDC-403	_		
	2 m	MQDC-406	MQDC-406RA		
	3 m	MQDC-410	_	Female	
4.00	5 m	MQDC-415	MQDC-415RA	1- 02-2	1 = Brown
4-Pin Female QD to Flying Leads	9 m	MQDC-430	MQDC-430RA	4 6 3	2 = White 3 = Blue
to riying Ledas	15 m	MQDC-450	MQDC-450RA	4-	4 = Black
	18 m	MQDC-460	MQDC-460RA		Black
	21 m	MQDC-470	MQDC-470RA		
	30 m	MQDC-4100	MQDC-4100RA	22 AWG	Cable ø – 5.2 mm
	Length	Straight/Straight (female/male)	Straight/Right-Angle (female/male)	P	Pinout
	0.3 m	MQDEC-401SS	MQDEC-401RS	Female	
	0.6 m	MQDEC-402SS	_	1-2	
	0.9 m	MQDEC-403SS	MQDEC-403RS	43	
	1.8 m	MQDEC-406SS	MQDEC-406RS		1 = Brown
45: 5 11 5 1 1	3.0 m	MQDEC-410SS	_		2 = White
4-Pin Double-Ended	3.6 m	MQDEC-412SS	MQDEC-412RS	Male	3 = Blue
	4.5 m	MQDEC-415SS	_	3-1-1	4 = Black
	6.1 m	MQDEC-420SS	MQDEC-420RS	4	
	9.2 m	MQDEC-430SS	MQDEC-430RS	W	
	15.2 m	MQDEC-450SS	MQDEC-450RS	22 AWG	Cable ø – 5.2 mm

#### 5-Pin M12 (Voltage: 60 V DC/AC, Current: 4 A)

<b>3-PIII IVI12</b> (Vol	tage: 60 V L	OC/AC, Current: 4 A)			
	Length	Straight	Right-Angle	Pi	nout
	0.9 m	MQDC1-503	_		
	2 m	MQDC1-506	MQDC1-506RA	Female 2	1 = Brown 2 = White
5-Pin Female QD	5 m	MQDC1-515	MQDC1-515RA	1-	2 – Wille 3 = Blue
to Flying Leads	9 m	MQDC1-530	MQDC1-530RA	4 5	4 = Black
	18 m	MQDC1-560	_		5 = Gray
	30 m	MQDC1-5100	_	22 AWG	Cable ø – 5.6 mm
	Length	Straight/Straight (female/male)	Straight/Right-Angle	Pi	nout
	0.3 m	MQDEC-501SS	_	Female	
	1 m	MQDEC-503SS	-	4 5	1 = Brown
5-Pin Double-Ended	2 m	MQDEC-506SS	-		2 = White 3 = Blue
o i in boable Eliaca	5 m	MQDEC-515SS	-	Male 3	4 = Black 5 = Gray
	9 m	MQDEC-530SS	-	4	,
	15 m	MQDEC-550SS	_	22 AWG	Cable ø – 5.6 mm

#### 8-Pin M12 (Voltage: 30 V DC/AC, Current: 2 A)

	Length	Straight	Right-Angle	Pi	nout
	2 m	MQDC2S-806	MQDC2S-806RA		
	5 m	MQDC2S-815	MQDC2S-815RA	Female  2  3  1  6  8	1 = White 2 = Brown 3 = Green
8-Pin Female QD to Flying Leads Open Shield	10 m	MQDC2S-830	MQDC2S-830RA		4 = Yellow 5 = Gray
with Drain Wire	16 m	MQDC2S-850	MQDC2S-850RA		6 = Pink 7 = Blue 8 = Red
	31 m <b>MQDC2S-8100</b>	_	24 AWG	Cable ø – 5.6 mm	

#### 4-Pin M12 PUR (Voltage: 250 V DC/AC, Current: 4 A)

	Length	Straight	Right-Angle	Pi	nout
	2 m	MQDC-406-PUR	MQDC-406RA-PUR	Female	
4-Pin Female QD to Flying Leads	5 m	MQDC-415-PUR	MQDC-415RA-PUR	1-00-2	1 = Brown 2 = White 3 = Blue 4 = Black
	10 m	MQDC-430-PUR	MQDC-430RA-PUR	22 AWG	Cable ø – 4.1 mr
	Length	Straight/Straight (female/male)	Right-Angle/Straight (female/male)	Pi	nout
	0.3 m	MQDEC-401SS-PUR	MQDEC-401SR-PUR	Female	
	0.6 m	MQDEC-402SS-PUR	MQDEC-402SR-PUR	1 000 2	
	1 m	MQDEC-403SS-PUR	MQDEC-403SR-PUR		1 = Brown
4-Pin Double-Ended	2 m	MQDEC-406SS-PUR	MQDEC-406SR-PUR		2 = White 3 = Blue
	3 m	MQDEC-409SS-PUR	MQDEC-409SR-PUR	Male 2	4 = Black
	5 m	MQDEC-415SS-PUR	MQDEC-415SR-PUR	3-4-4	
	10 m	MQDEC-430SS-PUR	MQDEC-430SR-PUR	22 AWG	Cable ø – 4.1 mn

#### 4-Pin M12 Lighted (Voltage: 10 to 30 V DC at 15 mA max)

	Length	Straight	Right-Angle	Р	inout
	2 m	MQDC-406-GYP	MQDC-406-GYPRA	Female	
4-Pin PNP	5 m	MQDC-415-GYP	MQDC-415-GYPRA	1 (60) 2	1 = Brown 2 = White 3 = Blue 4 = Black (ouput LED)
	9 m	MQDC-430-GYP	MQDC-430-GYPRA	22 AWG	Cable ø – 5.2 mm
	2 m	MQDC-406-GYN	MQDC-406-GYNRA	Famala	
4-Pin NPN	5 m	MQDC-415-GYN	MQDC-415-GYNRA	Female	1 = Brown 2 = White 3 = Blue 4 = Black (ouput LED)
	9 m	MQDC-430-GYN	MQDC-430-GYNRA	22 AWG	Cable ø – 5.2 mm

#### 5-Pin M12 Lighted (Voltage: 10 to 30 V DC at 15 mA max)

	Length	Straight	Right-Angle	Pi	nout
2 m MQDC-506-GYP MQDC-506-GYPRA		Female	1 = Brown		
5-Pin PNP 5 m MQDC-515-GYP MQDC-515-GYPRA	1 2 3 4 5	2 = White 3 = Blue 4 = Black (ouput LED) 5 = Gray			
	9 m	MQDC-530-GYP	MQDC-530-GYPRA	22 AWG	Cable ø – 5.6 mm
	2 m	MQDC-506-GYN	MQDC-506-GYNRA	Female	1 = Brown
5-Pin NPN	5 m	MQDC-515-GYN	MQDC-515-GYNRA	1 000 3	2 = White 3 = Blue 4 = Black (ouput LED) 5 = Gray
	9 m	MQDC-530-GYN	MQDC-530-GYNRA	22 AWG	Cable ø – 5.6 mm

### 4-Pin M12 Washdown (Voltage: 250 V DC/AC, Current: 4 A)

	Length	Straight	Pinou	ıt
	2 m	MQDC-WDSS-0406	Family	1 = Brown
4-Pin	5 m	MQDC-WDSS-0415	Female	2 = White 3 = Blue 4 = Black
	9 m	MQDC-WDSS-0430	22 AWG	Cable ø – 4.8 mm
	Length	Straight/Straight	Pinou	ıt
	0.31 m	MQDEC-WDSS-401SS	Female	
4-Pin Double-Ended	0.91 m	MQDEC-WDSS-403SS	4-09-3	1 = Brown 2 = White
4-Pin Double-Ended	1.83 m	MQDEC-WDSS-406SS	Male 3	3 = Blue 4 = Black
	3.7 m	MQDEC-WDSS-412SS	22 AWG	Cable ø – 4.8 mm

#### 5-Pin M12 Washdown (Voltage: 60 V DC/AC, Current: 4 A)

Voltage: 00 V DOAC, Current: 4 A)					
	Length	Straight	Pino	out	
	2 m	MQDC-WDSS-0506	Female	1 = Brown	
5-Pin	5 m	MQDC-WDSS-0515	1 0000 3	2 = White 3 = Blue 4 = Black 5 = Gray	
	9 m	MQDC-WDSS-0530	22 AWG	Cable ø – 5.2 mm	
	Length	Straight/Straight	Pino	out	
	1.5 m	MQDEC-WDSS-505SS	Female	1 = Brown	
5-Pin Double-Ended	3 m	MQDEC-WDSS-510SS	Male	2 = White 3 = Blue 4 = Black	
	4.57 m	MQDEC-WDSS-515SS	4 1 5 22 AWG	5 = Gray  Cable ø – 4.8 mm	

## 4-Pin M12 Splitters (Voltage: 250 V DC/AC, Current: 4 A)

	Models	Cable I	Lengths	D:	nout
	Models	Trunk (Male)	Branches (Female)	PII	nout
4-Pin	CSB-M1240M1241	No Trunk/Integral QD	2 x 0.3 m	Female	1 = Brown 2 = White 3 = Blue 4 = Black
	CSB-M1241M1241	0.3 m	2 x 0.3 m	1 00 2 4 Male	
	CSB-M1243M1243	1 m	2 x 1 m		
	CSB-M1248M1241	2.4 m	2 x 0.3 m		
	CSB-M12415M1241	4.6 m	2 x 0.3 m	4-1	
	CSB-UNT425M1241	7.6 m Unterminated	2 x 0.3 m	22 AWG	Cable ø – 6.0 mm

#### 4-Pin M12 Splitters (Voltage: 30 V DC/AC, Current: 4 A)

	Madala	Cable	e Lengths	Wining Diagrams	
	Models	Branches (Female)	Trunk (Male)	Wiring Diagrams	
	S15YB-M124-M124-0.2M			Trunk 2	
4-Pin	S15YA4-M124-M124-0.2M	2 x 0.2 m	No Trunk	Trunk 2 Branch 2 (male) 4 (female)	
	S15YA24-M124-M124-0.2M			Trunk 1 2 3 4 (female)  Trunk 2 4 (female)  (male) 3 4 4 (female)	

#### 5-Pin M12 Splitters (Voltage: 30 V DC/AC, Current: 2 A)

	Madala	Cable Lengths		Pinout	
	Models	Trunk	Branches	Pir	iout
5.0	CSB-M1251M1251B	0.3 m (Male)	2 x 0.3 m (Female)	Female  1	1 = Brown 2 = White
5-Pin	CSB-M1251FM1251M	0.3 m (Female)	2 x 0.3 m (Male)	Male  3  4  1  5	3 = Blue 4 = Black 5 = Gray
				22 AWG	Cable ø – 5.9 mm

### Wall Plug Cordsets

Plug Type	Length	Countries	Models
Flying Leads		General use	LQMAC-306
NEMA 5-15 grounded (IEC Type B)		United States, Canada, Japan, Puerto Rico, Taiwan	LQMAC-306B
BS 546 (IEC Type D)		India	LQMAC-306D
CEE 7/7 (IEC Type E or F)	1.8 m	Germany, France, South Korea, The Netherlands, Poland, Spain, Turkey	LQMAC-306EF
BS 1363 (IEC Type G)		United Kingdom, Ireland, Singapore, Vietnam	LQMAC-306G
AS/NZS 3112 (IEC Type I)		China, Australia, New Zealand	LQMAC-306I
NBR 14136 (IEC Type N)		Brazil	LQMAC-306N
NEMA 5-15 grounded (IEC Type B)	3 m	United States, Canada, Japan, Puerto Rico, Taiwan	LQMAC-310B

#### **Cascade Cordsets**

	Length	Models
	0.15 m	LQMAEC-3005SS
	0.31 m	LQMAEC-301SS
Male Straight/Male Straight	0.91 m	LQMAEC-303SS
	1.83 m	LQMAEC-306SS
	3.66 m	LQMAEC-312SS
	6.1 m	LQMAEC-320SS
	9.14 m	LQMAEC-330SS

### 2-Pin Single Color Only Cordsets

	Length	Models
	1.83 m	DTMC-206
2-Pin Straight	4.57 m	DTMC-215
	9.15 m	DTMC-230
	0.16 m	DTMEC-2005
	0.31 m	DTMEC-201
	0.91 m	DTMEC-203
2-Pin Double-Ended	1.83 m	DTMEC-206
	3.66 m	DTMEC-212
	6.1 m	DTMEC-220
	9.15 m	DTMEC-230



## Accessories



#### Pro Editor Cable Accessory Kit



To Editor Cable Accessory Kit					
Description	Length	Connections	Model		
Pro Editor Software Adapter	1.83 m	USB and 5-pin M12 QD			
Power Supply	2 m	5-pin M12 QD	PRO-KIT		
5-pin M12 Splitter	Female Trunk: 0.3 m Male Branches: 2 x 0.3 m	5-pin M12 QD			

#### Pro Editor Converter Cable

Description	Length	Connections	Model
Pro Editor Software Adapter	1.83 m	USB and 5-pin M12 QD	MQDC-506-USB





Description	Length	Connections	Model
Mating accessory for cabled and terminal models, Includes: Cable and 5 Lever Wire Nuts	150 mm (6 in)	5-pin M12 QD	ACC-PRO-CABLE5

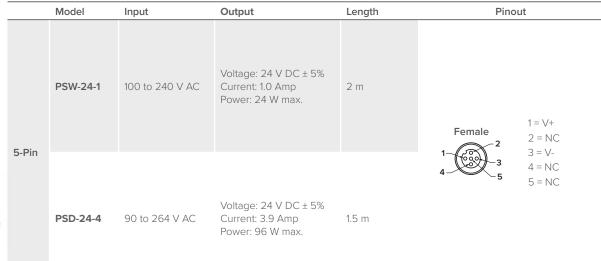


#### **Pro Cordset**

Description	Length	Connections	Model
A-Code M12 to A-Code M12 Double Ended	0.30 m	8-pin Straight Female, 5-pin Straight Male	MQDC-801-5M-PRO

#### 5-Pin Power Supply





#### Inline AC/DC Power Converter\*



AC Output	DC Output	Connector	DC Device Remote Input Type and Pin Assignment	Model
Normally Open, E/M Relay	PNP	150 mm PVC cable with an M12 QD	PNP on Pin 2	SPS30PAR2PQ5
			PNP on Pin 5	SPS30PAR5PQ5
			NPN on Pin 5	SPS30PAR5NQ5
	NPN			SPS30NAR5NQ5
	PNP	150 mm PVC cable with an M8 QD	NPN on Pin 2	SPS30PAR2NQ3

<sup>\*</sup>For use with actuator products

## Switches and Dimming Accessories

#### WI S28 In-Line Switches

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WESZO III-LIIIE SWITCHES			
Description	Used With	Models	
2 position in-line switch	2-Wire DC LED lights	WLS28PBQ	
3 position in-line switch	WLS28-2 and WLS28-2 dual color	WLS28-2PBQ	
In-line motion detector switch	2-Wire DC LED lights	WLS28-2MQ	
Three 2-position in-line switch	4-Wire DC LED lights	LC28PB2-3Q	

#### LC15T and LC25T In-Line Touch Switches



Model Function	Power Applied	10%-90% PWM Output*	Output On 100%	Used With	Models
On/off		N1/A	controlled devices	2 Mina DC also is a c	LC15T-127AL2RGQP
On/on		N/A		LC25T-AL2RGQ	
0.146	Red	Blue			LC15T-127AP1RBGQP
3-Wire PWM control					LC25T-AP1RBGQ
2-Wire PWM control		Blue			LC15T-127AP2RBGQP
					LC25T-AP1RBGQ

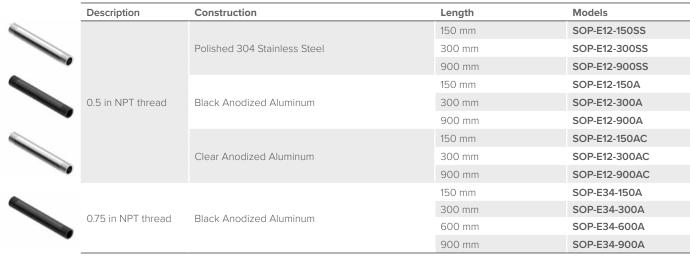
#### LC65 LED Dimmer Module



Connection	Pulse Width Modulation Type	Models
Terminal block	3-Wire	LC65P1T
Terrilinal block	2-Wire	LC65P2T
1 - 150 mm 5-pin M12 PVC cable with a female, stainless steel QD	3-Wire	LC65P1Q5
1 - 150 mm 4-pin M12 PVC cable with a female, stainless steel QD	2-Wire	LC65P2Q5

# Standoff Pipe Accessories

#### **Standoff Pipes**



#### **Adapters and Covers**

















	Adapters and Govers				
	Description	Construction	Models		
	M36 thread to 12-14 NPSM thread base	Black plastic	SA-M36E12		
	M36 thread with clearance for 0.75 in pipe	Black plastic	SA-M36SOP		
807	Mounting base, M30 x 1.5 thread	Black ABS	SA-M30TE12		
	(for use with TL50)	White UHMW	SA-M30TE12C		
	M30 x 1.5 thread (for use with K70 and K90 EZ-Light)	Black polycarbonate	SA-M30		
7		Gray polycarbonate	SA-M30C		
	30 mm light base to 0.5 in pipe (mounting hardware included)	Black ABS	SA-E12M30		
Į.		White UHMW	SA-E12M30C		
	22 mm light base to 0.5 in pipe	Black polycarbonate	SA-M22E12		

#### **Pipe Mounting Flange**



Description	Construction	Models
0.5 in NPSM/DN15 Elevated-use standoff pipe (M5 mounting hardware and nitrile gasket included)	Die-cast zinc base with black paint	SA-F12
	Black polycarbonate	SA-F12-3

# Audible Indication

# Hazardous Location



#### **K50 Pro Compact Audible**

K50 Pro Compact Audible Indicators are a bright, sealed indicator, designed with an integrated audible alarm. It offers fourteen different tones that can be customized and adjusted to different intensity levels. All K50 models are programmable using Banner's Pro Editor Software or IO-Link. It offers seven default colors in one multicolor RGB device and is available without indication.



#### **TL50** Audible

TL50 Pro Audible Indicators are rugged and easy to install. Audible models are available with standard, sealed, or omni-directional audible element.



#### TL70 Audible

TL70 Tower Lights feature adjustable audible modules for tremendous flexibility and can be customized as needed.



#### TL15 Audible

TL15A in-line audible alert indicators can be used as standalone devices, connected in-line with TL15 tower lights, or paired with sensors so users can receive color status and audio alerts locally.



#### **HLS27 Bright LED Strip Lights**

HLS27 LED Strip Lights for hazardous locations have a sturdy aluminum housing and are encased in a shatterproof, UV-stabilized polycarbonate shell, making them ideal for harsh indoor and outdoor applications. The option of having multiple colors in one device makes this ideal for mobile vehicle, machine status, and vision lighting applications. It has certifications for cULus and ATEX/UKCA/IECEx.



#### **HLS28 LED Strip Lights for Enclosures**

HLS28 Hazardous Location LED Strip Lights have a sturdy aluminum housing, shatterproof windows, and a low-profile, space-saving design for use in certified enclosures in hazardous locations. The light is available with an integrated motion sensor for auto-on when the enclosure door is opened, or anytime motion is detected. It has certifications for cULus and ATEX/UKCA/IECEx.



#### K30 30 mm Multicolor Indicators

Rugged, cost-effective multicolor indicator light made for use in hazardous areas. It is ATEX, CSA c/us, and IECEx certified; fully sealed; and rated to IP67/IP69K for harsh environments.



#### K50 50 mm Multicolor Indicators

K50L indicators feature an illuminated dome for easy-to-see operator guidance and indication of equipment status. Ideal for use in hazardous areas, it is rated IP67/IP69K for washdown and has certifications in ATEX. CSA c/us. and IECEx.



#### K100 Pro Hazardous Beacons

K100 Pro Hazardous Beacons are designed for use in oil, gas, and other hazardous locations. With an environmental rating of IP66 and IP69K, these durable hazardous models can withstand high temperatures, protect against vibration, and are dustproof. They are rated cULus, CID2, CIID2, CIID1, and CIIID2 for use in settings in which flammable gases, vapors, mists, or dusts are present.

# Heavy Duty and Washdown





#### **RLS27 Rugged LED Strip Lights**

The RLS27 Strip lights feature a shatterproof, UV-stabilized polycarbonate shell that provides superior environmental resistance. Along with a sturdy aluminum inner housing and waterproof IP67/IP69K-rated design, these highly efficient strip lights deliver reliable operation in the most challenging environments. Choose from single-color, multicolor, or programmable models.



#### WLS27 LED Strip Lights

Banner's WLS27 LED Strip Lights have a sturdy internal aluminum structure, encased in shatterproof, UV-stabilized, copolyester shells, making them ideal for harsh indoor and outdoor applications.



#### WLC60 Heavy Duty LED Strip Lights

Designed to operate in harsh environments, the WLC60 can withstand high-pressure washdown and exposure to coolants and detergents.



#### WLH60 High Temperature LED Lights

Banner's WLH60 is a heavy-duty LED light fixture offering best-in-class brightness to illuminate applications in high-temperature environments. Its rugged, heat-resistant design enables installation in or near high-temperature areas that challenge other lighting solutions.



## WLC90 Heavy Duty LED Work Lights for High Temperatures

Designed to operate in harsh environments, the WLC90 can withstand high-pressure washdown and exposure to coolants and detergents.



## WLA LED Area Lights for Industrial Work Cells

Developed for lighting industrial work cells, including areas with exposure to liquids, such as food and beverage processing applications.



#### **Linear Array Lights**

Linear Array Lights provide high-intensity illumination of large areas, at long distances.



#### **Linear Array Backlights**

Linear Array Backlights provide maintenance-free LED illumination of large objects from far away.



#### **Area Lights**

Area Lights create shadows to detect changes in depth, illuminate specific surface angles, and avoid glare from reflective surfaces when directed at an angle away from the lens.



#### **Backlights**

Backlights offer a highly diffuse surface and uniform brightness, with a lower intensity than other lights.



#### **Ring Lights**

Ring Lights brightly illuminate small objects and reduce shadows on images with protrusions.



#### Low-Angle Ring Lights

Low-Angle Ring Lights illuminate from an angle nearly perpendicular to objects to emphasize surface irregularities such as dust, dents, scratches and other surface defects.



#### **Spot Lights**

Spot Lights provide extremely bright, even light with a single high-power LED.



#### **On-Axis Lights**

On-Axis Lights evenly illuminate flat reflective surfaces and deliver collimated illumination in the same optical path as a camera.



#### **Structured Lights**

A laser line generator is an example of a structured lighting scheme. This technique uses a high-quality, uniform laser line to infer the presence of a difficult-to-see target.



## More Sensors, More Solutions.

Banner Engineering designs and manufactures industrial automation products including sensors, smart IIoT and industrial wireless technologies, LED lights and indicators, measurement devices, machine safety equipment, as well as barcode scanners and machine vision. These solutions help make many of the things we use every day, from food and medicine to cars and electronics. A high-quality, reliable Banner product is installed somewhere around the world every two seconds. Headquartered in Minneapolis since 1966, Banner is an industry leader with more than 10,000 products, operations on five continents, and a world-wide team of more than 5,500 employees and partners. Our dedication to innovation and personable service makes Banner a trusted source of smart automation technologies to customers around the globe.





