

Features

Large Multicolor Indicator that Alternates Between Active Inputs

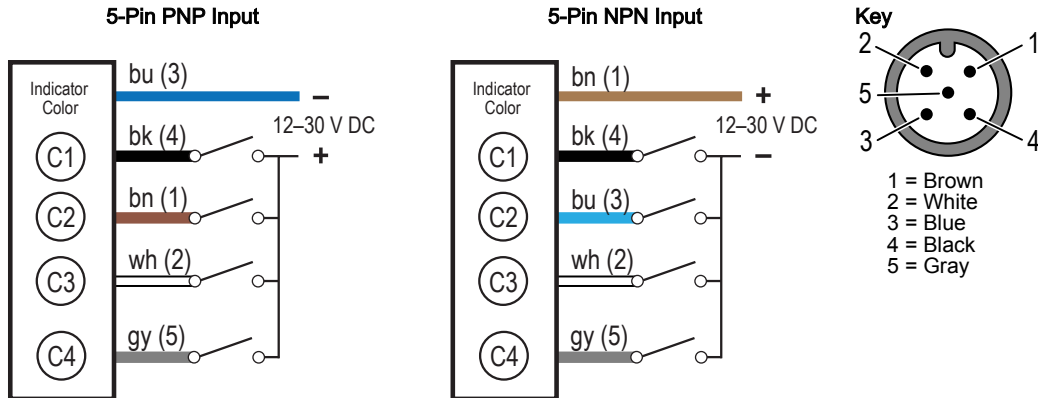


- Bright, uniform indicator light
- Alternates between colors when multiple inputs are active
- Models are available with up to five colors in one device
- Rugged IP67-rated design
- 12 V DC to 30 V DC operation

Model	Number of Colors	Colors	Input	Connection ⁽¹⁾
K90TLGRPQ	2	Green, Red	PNP	Integral 5-pin M12 male quick-disconnect connector
K90TLGYRPQ	3	Green, Red, Yellow		
K90TLBGYPQ	4	Blue, Green, Yellow, Red		
K90TLWBGYPQ	5	White, Blue, Green, Yellow, Red		
K90TLGRNQ	2	Green, Red	NPN	Integral 5-pin M12 male quick-disconnect connector
K90TLGYRNQ	3	Green, Red, Yellow		
K90TLBGYNQ	4	Blue, Green, Yellow, Red		
K90TLWBGYNQ	5	White, Blue, Green, Yellow, Red		

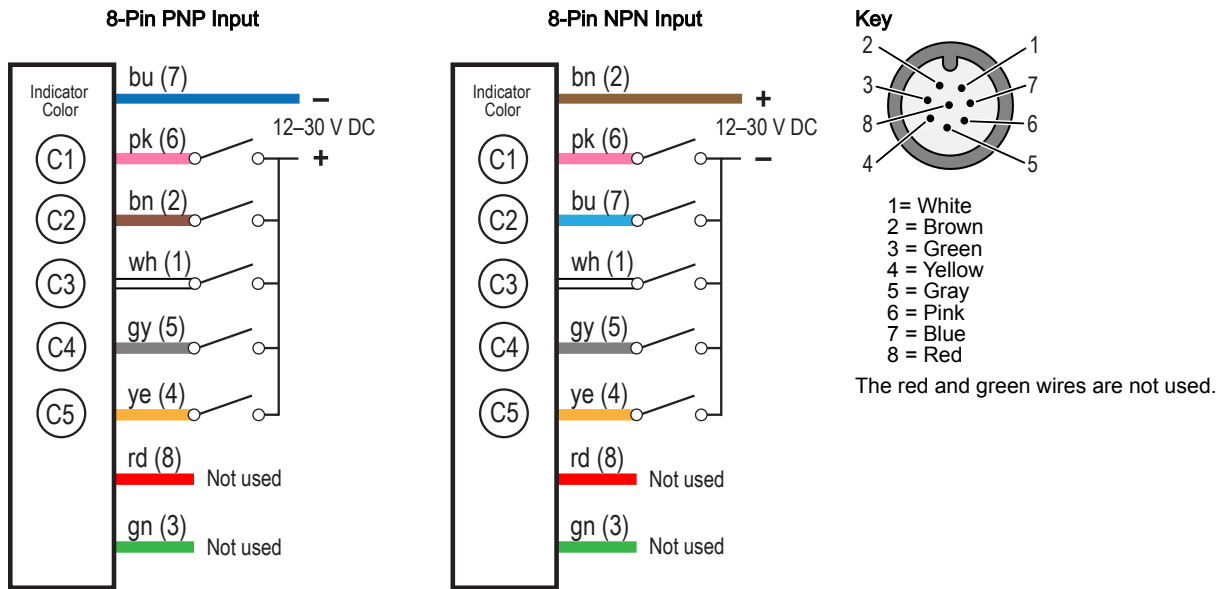
Wiring

When multiple inputs are on at the same time, the indicator cycles between colors at a rate of 1 Hz.



⁽¹⁾ Integral quick-disconnect connector models are listed.

- To order the 150 mm (6 in) PVC cable model with an M12 quick-disconnect connector, replace the suffix "Q" with "QP" in the model number. For example, K90TLGRPQ.
- To order the 2 m (6.5 ft) PVC cable model, omit the suffix "Q" in the model number. For example, K90TLGR.



Specifications

Supply Voltage and Current

12 V DC to 30 V DC
 475 mA maximum at 12 V DC
 175 mA maximum at 30 V DC

Supply Protection Circuitry

Protected against reverse polarity and transient voltages

Input Response Time

150 ms maximum

Indicators

2 to 5 colors, depending on model

Indicator Characteristics

Color	Typical Wavelength or Color Temperature	Typical Intensity
Red	625 nm	65 lumens
Yellow	590 nm	35 lumens
Green	525 nm	150 lumens
Blue	470 nm	55 lumens
White	6000K to 7100K	200 lumens

Construction

Base and dome: Polycarbonate

Connections

Integral 5-pin M12 male quick-disconnect connector; Integral 8-pin M12 male quick-disconnect connector; 150 mm (6 in) PVC-jacketed cable with a 5-pin M12 male quick-disconnect connector; 150 mm (6 in) PVC-jacketed cable with an 8-pin M12 male quick-disconnect connector; or 2 m (6.5 ft) unterminated PVC-jacketed cable, depending on model

Environmental Rating

IP67, Enclosure UL Type 4X, 13

Vibration and Mechanical Shock

All models meet MIL-STD-202F, Method 201A (Vibration: 10 Hz to 60 Hz maximum, 0.06 inch (1.52 mm) double amplitude, 10G maximum acceleration) requirements. Also meets IEC 60947-5-2 (Shock: 30G 11 ms duration, half sine wave) requirements.

Operating Conditions

-40 °C to +50 °C (-40 °F to +122 °F)

Required Overcurrent Protection



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

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

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

Supply wiring leads < 24 AWG shall not be spliced.

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

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

Certifications

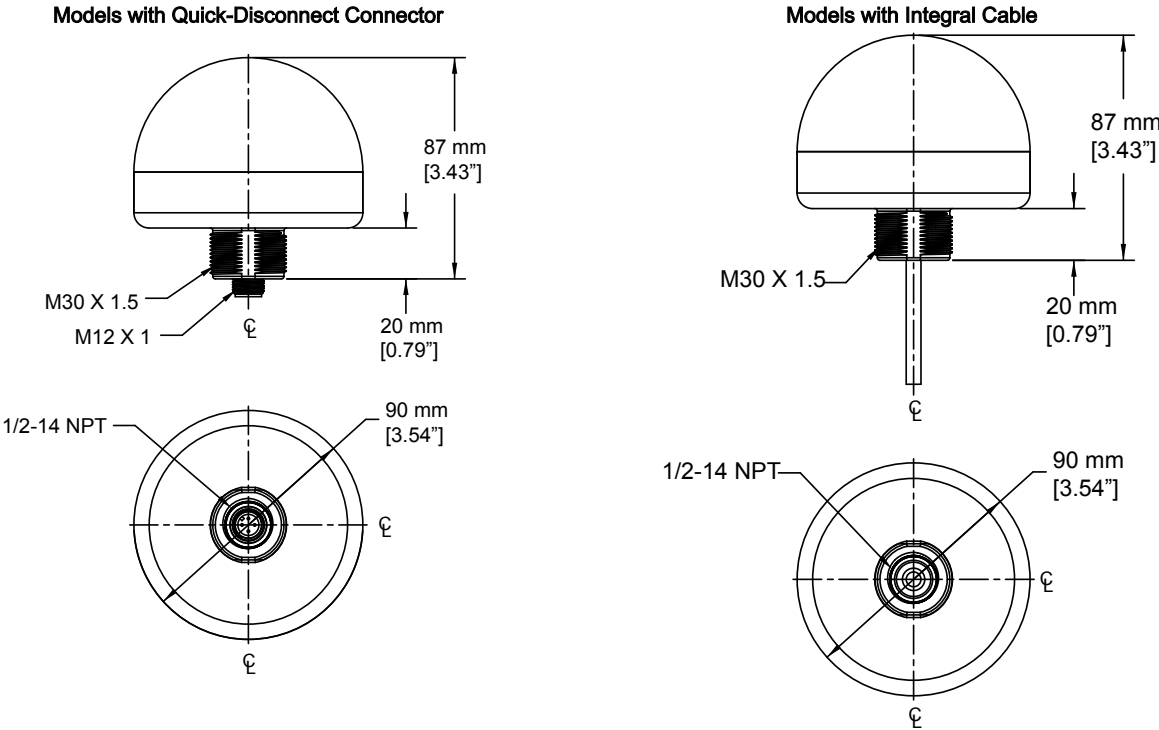


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Dimensions

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



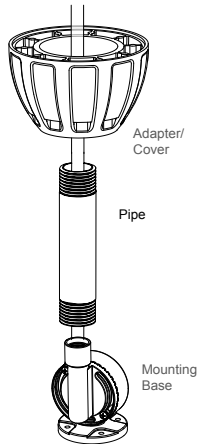
Accessories

Cordsets

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

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

Elevated Mount System



Adapter/Cover Model	Description	
SA-M30 - Black polycarbonate	<ul style="list-style-type: none"> Streamlined black PC or Gray PC thread cover Covers the outer M30 threads on the light's base Typically used for the TL70 Tower Light and K90 series Mounting hardware included CAD files: DXF, PDF, IGS, STP 	
SA-M30C - Gray polycarbonate		

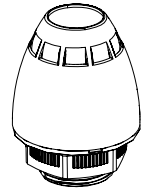
Black Anodized Aluminum, ½ in. NPT Pipe Models	Clear Anodized Aluminum, ½ in. NPT Pipe Models	Description
SOP-E12-150A, 150 mm (6 in) long	SOP-E12-150AC, 150 mm (6 in) long	<ul style="list-style-type: none"> Elevated-use stand-off pipe Threaded at both ends Compatible with most industrial environments CAD Files: <ul style="list-style-type: none"> SOP-E12-150A: DXF, PDF, IGS, STP SOP-E12-300A: DXF, PDF, IGS, STP SOP-E12-600A: DXF, PDF, IGS, STP SOP-E12-900A: DXF, PDF, IGS, STP
SOP-E12-300A, 300 mm (12 in) long	SOP-E12-300AC, 300 mm (12 in) long	
SOP-E12-600A, 600 mm (24 in) long	-	
SOP-E12-900A, 900 mm (36 in) long	SOP-E12-900AC, 900 mm (36 in) long	


Mounting Base Model	Description	
SA-FFB12 - Black polycarbonate	<ul style="list-style-type: none"> For use with ½ in. stand-off pipes 110° rotation Stainless steel hardware CAD files: DXF, PDF, IGS, STP 	
SA-FFB12C - Gray polycarbonate		

Other Pipes



304 Stainless Steel, ½ in. NPT Pipe Models	Description
SOP-E12-150SS, 150 mm (6 in) long	<ul style="list-style-type: none"> Elevated-use stand-off pipe Threaded at both ends Compatible with most industrial environments CAD Files: <ul style="list-style-type: none"> SOP-E12-150x: DXF, PDF, IGS, STP SOP-E12-300x: DXF, PDF, IGS, STP SOP-E12-600x: DXF, PDF, IGS, STP SOP-E12-900x: DXF, PDF, IGS, STP
SOP-E12-300SS, 300 mm (12 in) long	
SOP-E12-600SS, 600 mm (24 in) long	
SOP-E12-900SS, 900 mm (36 in) long	

Other Mounting Bases


Mounting Base Model	Description	
SA-E12M30 - Black acetal	<ul style="list-style-type: none"> Streamlined black acetal or white UHMW mounting base adapter/cover Adapter from ½ in. NPSM/DN15 pipe to 30 mm (1-3/16 in) drilled hole Mounting hardware included CAD files: DXF, PDF, IGS, STP 	
SA-E12M30C - White UHMW		

Mounting Base Model	Description	
SA-F12	<ul style="list-style-type: none"> Die-cast zinc base with black paint Elevated-use stand-off pipes (½ in, NPSM/DN15) M5 mounting hardware and nitrile gasket included CAD files: DXF, PDF, IGS, STP 	

LMB Sealed Right-Angle Bracket

Model	Description	
LMB30RA - Black polycarbonate CAD Files: DXF , PDF , IGS , STP LMB30RAC - Gray polycarbonate CAD Files: DXF , PDF , IGS , STP	<ul style="list-style-type: none"> Direct-Mount Models Bracket kit with base, 30 mm adapter, set screw, fasteners, O-rings, and gaskets. 	
LMBE12RA - Black polycarbonate CAD Files: DXF , PDF , IGS , STP LMBE12RAC - Gray polycarbonate CAD Files: DXF , PDF , IGS , STP	<ul style="list-style-type: none"> Pipe-Mount Models Bracket kit with base, ½-14 pipe adapter, set screw, fasteners, O-rings, and gaskets For use with stand-off pipe (listed and sold separately) 	

Sun Shield

K90DS <ul style="list-style-type: none"> Use for enhanced visibility in direct sunlight conditions Polycarbonate 	
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