

Features

High Daylight Visibility, Multicolor Indicator with Optional Audible Alarm for Indoor or Outdoor Use



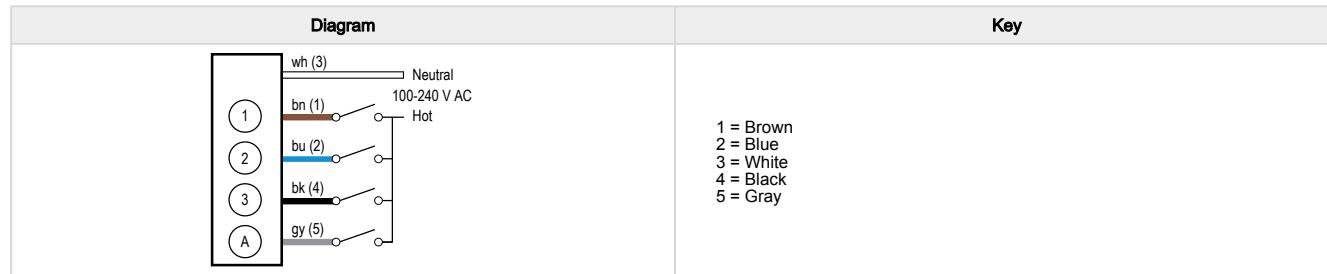
- Highly visible indicator provides bright, even light in direct sunlight
- Three colors in one device
- 36 mm threaded polycarbonate base
- Rugged IP66 and IP69K per ISO 20653, UL Type 4X housing
- Variety of connector options
- Rugged UV-stabilized polycarbonate base and window
- 100 V AC to 240 V AC operating voltage

Models

Standard models shown. Contact factory for other options.

Family	Style	Type	Voltage	Color 1 ⁽¹⁾	Color 2	Color 3	Audible	Connector ⁽²⁾
K100	P	BL	Z	G	Y	R	A	Q
	P = Pro	BL = Beacon	Z = AC	G = Green	Y = Yellow	R = Red	Blank = None A = Audible	Blank = 2 m (6.5 ft) integral PVC-jacketed cable Q = Integral 5-pin 1/2 in. 20UNF male quick-disconnect connector

Wiring Diagrams



An "X" denotes an active input.

For example: When Input 1 and Input 3 are both active, the indicator will be Color 1 Flashing at 1 Hz. Refer to model number scheme in ["Models" on page 1](#) to determine individual colors.

Default Configuration

Wiring				Operating Mode/Function	
Brown (Input 1)	Blue (Input 2)	Black (Input 3)	Gray (Input 4)	Non-Audible	Audible
X				Color 1 Steady	Color 1 Steady
	X			Color 2 Steady	Color 2 Steady
		X		Color 3 Steady	Color 3 Steady
X		X		Color 1 Flashing at 1 Hz	Color 1 Flashing at 1 Hz
X	X			Color 2 Flashing at 1 Hz	Color 2 Flashing at 1 Hz
	X	X		Color 3 Flashing at 1 Hz	Color 3 Flashing at 1 Hz
X	X	X		Color 3, 3-pulse Strobe	Color 3, 3-pulse Strobe

Continued on page 2

⁽¹⁾ Other available color option: Blue.

⁽²⁾ Models with a quick-disconnect connector require a mating cordset.

Continued from page 1

Wiring				Operating Mode/Function	
Brown (Input 1)	Blue (Input 2)	Black (Input 3)	Gray (Input 4)	Non-Audible	Audible
			X	Off	Audible Steady, Frequency 2.5 KHz, Volume High
X			X	Color 1 Steady	Color 1 Steady, Audible Steady, Frequency 2.5 KHz, Volume High
	X		X	Color 2 Steady	Color 2 Steady, Audible Steady, Frequency 2.5 KHz, Volume High
		X	X	Color 3 Steady	Color 3 Steady, Audible Steady, Frequency 2.5 KHz, Volume High
X		X	X	Color 1 Flashing at 1 Hz	Color 1 Flashing at 1 Hz, Audible Steady, Frequency 2.5 KHz, Volume High
X	X		X	Color 2 Flashing at 1 Hz	Color 2 Flashing at 1 Hz, Audible Steady, Frequency 2.5 KHz, Volume High
	X	X	X	Color 3 Flashing at 1 Hz	Color 3 Flashing at 1 Hz, Audible Steady, Frequency 2.5 KHz, Volume High
X	X	X	X	Color 3, 3-pulse Strobe	Color 3, 3-pulse Strobe, Audible Steady, Frequency 2.5 KHz, Volume High

Specifications

Supply Voltage and Current

100 V AC to 240 V AC, 50 Hz to 60 Hz

Supply Voltage (VAC)	Maximum Current (mAAC at 60 Hz)				
	Steady On, Flash, or Strobe Function ⁽³⁾		Rotate Function		
	Light Only	Light & Audible	Light Only	Light & Audible	
100	140	154	96	100	
230	78	85	62	68	

Supply Protection Circuitry

Protected against reverse polarity and transient voltages

Leakage Current Immunity

400 μ A

The use of relay output PLC is recommended since there is no leakage current. Solid state output PLCs often have leakage current above 1 mA and, therefore, turn the light on in the off state. To counteract the leakage current, a shunt resistor must be used. A resistor must be applied from the neutral wire of the device to the hot wire of each channel of the device.

Indicator Response Time

On Response: 350 ms (maximum)

Off Response: 20 ms (maximum)

Connections

Integral 5-pin 1/2 in. 20UNF male quick-disconnect connector or 2 m (6.5 ft) integral PVC-jacketed cable, depending on model

Models with a quick disconnect require a mating cordset

Mounting

M36 by 2.0 threaded base, maximum torque 5.0 N·m (44 inch-lbf)

Interior 3/4-14 NPT Thread

Mounting nut included

Adjacent Unit Mounting Separation Distance

Minimum: 0 in (mounted with unit flanges touching)

Audible Characteristics

Sound Intensity at 2.5 KHz, at 1 m (typical):

Low volume setting: 93 dB

Medium volume setting: 96 dB

High volume setting: 101 dB

Construction

Base, Dome, and Nut: Polycarbonate

(3) Flash or Strobe Mode: Peak current, operating at 50% duty cycle or less.

Operating Conditions

-40 °C to +60 °C (-40 °F to +140 °F)

90% at +50 °C maximum relative humidity (non-condensing)

Storage Temperature: -40 °C to +70 °C (-40 °F to +158 °F)

Vibration and Mechanical Shock

Meets IEC 60068-2-6 requirements (Vibration: 10 Hz to 55 Hz, 1.0 mm amplitude, 5 minutes sweep, 30 minutes dwell)

Meets IEC 60068-2-27 requirements (Shock: 30G 11 ms duration, half sine wave)

Impact: IK10 (60068-2-75)

Environmental Rating

IP66, IP69K per ISO 20653, UL Type 4X

LED Lifetime

Lumen maintenance L_{70}

When operating within specifications, output decreases less than 30% after 42,000 hours

Default Indicator Characteristics

Color	Dominant Wavelength (nm) or Color Temperature (CCT)	Color Coordinates ⁽⁴⁾		Lumen Output (Typical at 25 °C)
		x	y	
Green	528 nm	0.1603	0.6973	360
Yellow	589 nm	0.5557	0.4276	525
Red	625 nm	0.6999	0.2982	155
Blue	475 nm	0.1167	0.1121	165

Internal temperature compensation circuitry: Reduces the Lumen Output to decrease the unit internal operating temperature. The amount of reduction is dependent on the ambient operating temperature, supply voltage, color, and/or audible functions being utilized.

Certifications



Banner Engineering BV
Park Lane, Culliganlaan 2F bus 3
1831 Diegem, BELGIUM



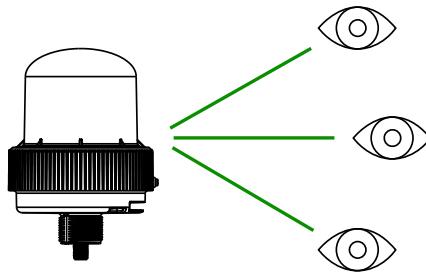
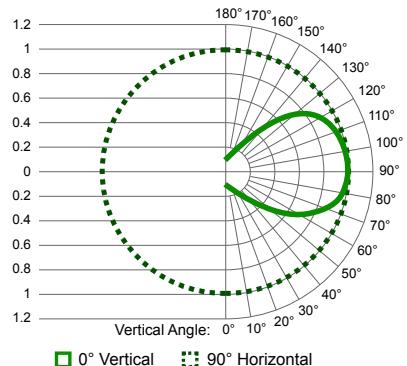
Turck Banner LTD Blenheim House
Blenheim Court
Wickford, Essex SS11 8YT
GREAT BRITAIN



(4) Refer to CIE 1931 chromaticity diagram or color chart, to show equivalent color with indicated color coordinates.

Photometric Data

Multiply the values shown in the chart by the maximum candela values in the Max. Candela table:
Polar Candela Distribution



Base Candela

Green	46
Yellow	67
Red	20
Blue	21
White	76

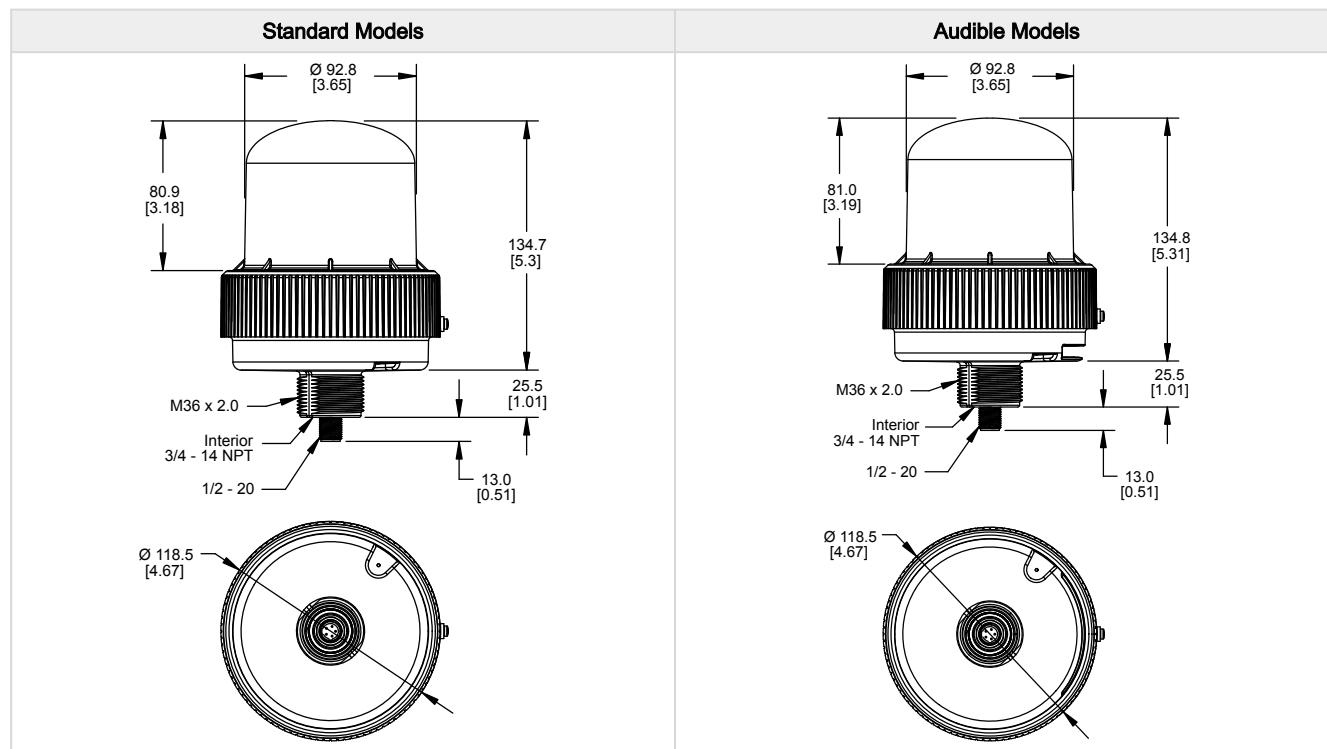
Candela Viewing Angle Example – Red

Angle	Factor	Base ⁽⁵⁾	Candela
120 (top view)	0.7	20	14
90 (side view)	1	20	20
60 (bottom view)	0.7	20	14

⁽⁵⁾ Red shown. See Base Candela table.

Dimensions

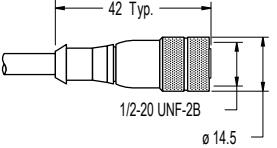
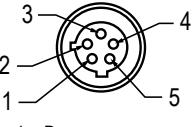
All measurements are listed in millimeters [inches], unless noted otherwise. The measurements provided are subject to change.



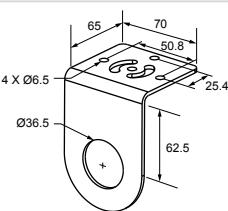
Accessories

Cordsets

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

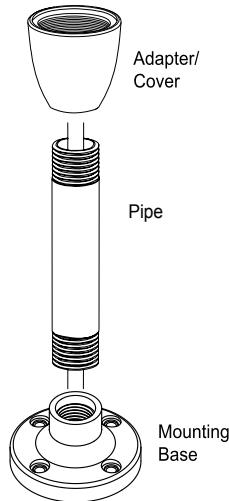
5-Pin Single-Ended 1/2-in Dual Key Female Cordsets				
Model	Length	Style	Dimensions	Pinout (Female)
MQAC2-506	2 m (6.56 ft)	Straight		 1 = Brown 2 = Blue 3 = White 4 = Black 5 = Gray
MQAC2-515	5 m (16.4 ft)			
MQAC2-530	9.14 m (30 ft)			

Brackets

LMB36RA <ul style="list-style-type: none"> Indicator light right-angle mounting 36 mm mounting hole Stainless steel 	
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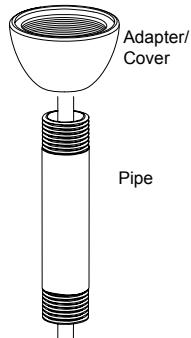
Elevated Mount System

Elevated Mount System (1/2" Pipes)



Adapter/Cover Model	Description	
SA-M36E12	<ul style="list-style-type: none"> Adapter from M36 thread to 1/2-14 NPSM thread Streamlined black plastic mounting base adapter/cover Drilled hole 	
Black Anodized Aluminum, 1/2 in. NPT Pipe Models	Clear Anodized Aluminum, 1/2 in. NPT Pipe Models	Description <ul style="list-style-type: none"> Elevated-use stand-off pipe Threaded at both ends Compatible with most industrial environments
SOP-E12-150A , 150 mm (6 in) long	SOP-E12-150AC , 150 mm (6 in) long	
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-F12	<ul style="list-style-type: none"> Elevated-use stand-off pipes (1/2 in, NPSM/DN15) M5 mounting hardware and nitrile gasket included Die-cast zinc base with black paint 	

Elevated Mount System (3/4" Pipes)



Adapter/Cover Model	Description	
SA-M36SOP	<ul style="list-style-type: none"> M36 thread adapter with clearance for 3/4 pipe mount Streamlined black plastic mounting base adapter/cover Drilled hole 	
Black Anodized Aluminum, 3/4 in. NPT Pipe Models	Description	<ul style="list-style-type: none"> Elevated-use stand-off pipe Threaded at both ends Compatible with most industrial environments
SOP-E34-150A , 150 mm (6 in) long		
SOP-E34-300A , 300 mm (12 in) long		
SOP-E34-600A , 600 mm (24 in) long		
SOP-E34-900A , 900 mm (36 in) long		

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