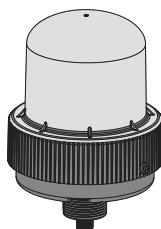


K100 Basic Daylight Visible Beacon - DC Datasheet

Features

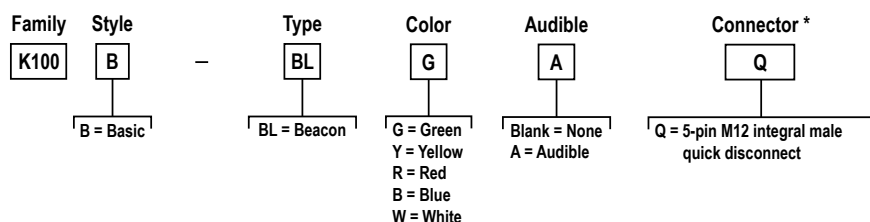
High Daylight Visibility, Single Color Beacon with Optional Audible Alarm for Indoor and Outdoor Use



- Highly visible indicator provides bright, even light in direct sunlight
- Five color choices available
- 36 mm threaded polycarbonate base
- Rugged IP66, UL Type 4X housing
- PNP or NPN operation depending on wiring
- Rugged UV-stabilized polycarbonate base and window
- 12 V DC to 48 V DC operating voltage

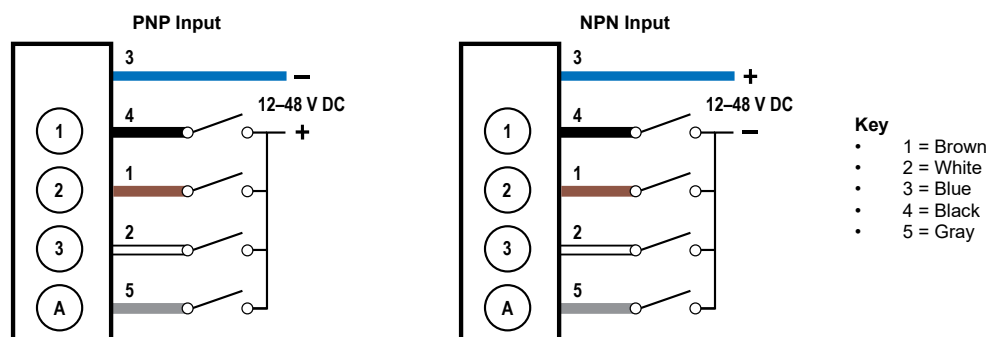
Models

Standard models shown. Contact factory for other options.



* Models with a quick disconnect require a mating cordset

Wiring Diagrams



An "X" denotes an active input.

For example: When Input 1 and Input 3 are both active, the indicator will be Flashing at 5 Hz.

Table 1: Default Configuration (Sheet 1 of 2)

Wiring				Operating Mode/Function	
Black (Input 1)	Brown (Input 2)	White (Input 3)	Gray (Input 4)	Non-Audible	Audible
X				Flashing at 1 Hz	Flashing at 1 Hz
	X			Steady	Steady
		X		Intensity Sweep	Intensity Sweep
X		X		Flashing at 5 Hz	Flashing at 5 Hz
X	X			Flashing at 0.5 Hz	Flashing at 0.5 Hz
	X	X		Strobe	Strobe
X	X	X		3-pulse Strobe	3-pulse Strobe
			X	Off	Audible Continuous
X			X	Flashing at 1 Hz	Flashing at 1 Hz, Audible Continuous

Table 1: Default Configuration (Continued) (Sheet 2 of 2)

Wiring				Operating Mode/Function	
Black (Input 1)	Brown (Input 2)	White (Input 3)	Gray (Input 4)	Non-Audible	Audible
	X		X	Steady	Steady, Audible Continuous
		X	X	Intensity Sweep	Intensity Sweep, Audible Continuous
X		X	X	Flashing at 5 Hz	Flashing at 5 Hz, Audible Continuous
X	X		X	Flashing at 0.5 Hz	Flashing at 0.5 Hz, Audible Continuous
	X	X	X	Strobe	Strobe, Audible Continuous
X	X	X	X	3-pulse Strobe	3-pulse Strobe, Audible Continuous

Specifications

Supply Protection Circuitry

Protected against reverse polarity and transient voltages

Leakage Current Immunity

600 μ A

Indicator Response Time

On response: 600 ms (max)

Off response: 50 ms (max)

Connections

Integral 5-pin M12 male quick-disconnect connector, 150 mm (6 in) PVC-jacketed cable with an M12 quick disconnect, 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: 101 dB, 2.5 KHz, at 1 m (typical)

Construction

Base, Dome, and Nut: Polycarbonate

Operating Conditions

–40 °C to +60 °C (–40 °F to +140 °F)

90% at +60 °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, UL Type 4X

LED Lifetime

Lumen maintenance L₇₀

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

Supply Voltage and Current

12 V DC to 48 V DC

Product approved with usage of Class 1 or Class 3 Power Supply to achieve Class 2 Power Supply status

Use only with a suitable Class 2 power supply (North America)

Current:

Voltage (V DC)	Steady On, Flash, or Strobe	
	Light Only (mA)	Light & Audible (mA)
12	230	270
18	160	200
24	130	170
30	110	150
36	100	140
42	90	130
48	85	125

Default Indicator Characteristics

At 12 V DC

Color	Dominant Wavelength (nm) or Color Temperature (CCT)	Color Coordinates ^a		Lumen Output (Typical at 25 °C)
		x	y	
Green	528 nm	0.1603	0.6973	200
Yellow	589 nm	0.5557	0.4276	200
Red	625 nm	0.6999	0.2982	93
Blue	475 nm	0.1167	0.1121	60
White	5500K \pm 250	0.3320	0.3433	240

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

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.

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	1.0	30	0.5

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



Dimensions

All measurements are listed in millimeters [inches], unless noted otherwise.

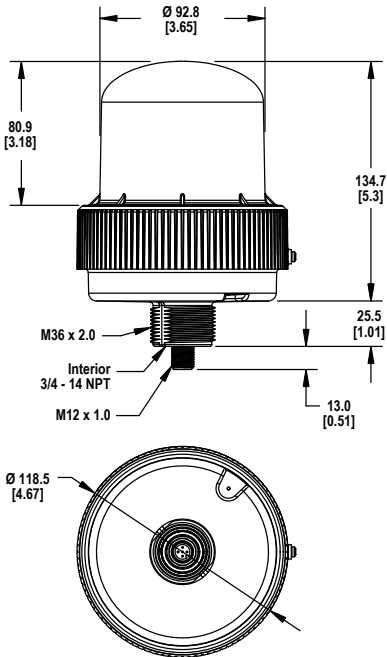


Figure 1: Standard Models

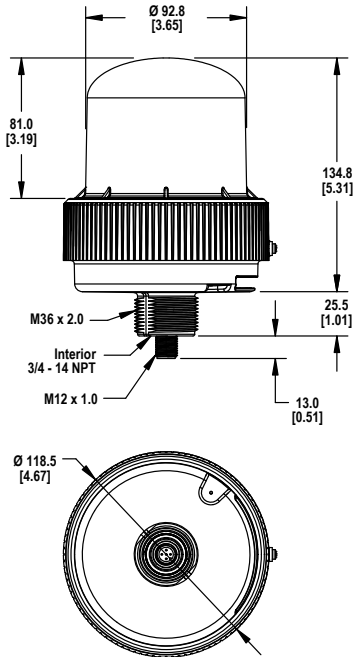
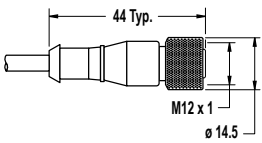
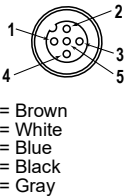


Figure 2: Audible Models

Accessories

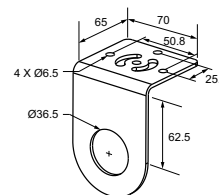
Cordsets

5-Pin Threaded M12 Cordsets—Single Ended				
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)	Right-Angle		
MQDC1-506RA	2 m (6.5 ft)			
MQDC1-515RA	5 m (16.4 ft)			
MQDC1-530RA	9 m (29.5 ft)			
MQDC1-560RA	19 m (62.3 ft)			




Brackets

LMB36RA

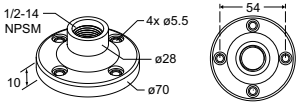
- Indicator light right-angle mounting
- 36 mm mounting hole
- Stainless steel



Elevated Mount System

Model			Features	Components
Black Anodized Aluminum ¾ in. NPT	Black Anodized Aluminum ½ in. NPT	Clear Anodized Aluminum ½ in. NPT		
SOP-E34-150A 150 mm (6 in) long	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 • Black anodized aluminum or clear anodized aluminum surface • Threaded at both ends • Compatible with most industrial environments 	
SOP-E34-300A 300 mm (12 in) long	SOP-E12-300A 300 mm (12 in) long	SOP-E12-300AC 300 mm (12 in) long		
SOP-E34-600A 600 mm (24 in) long	SOP-E12-600A 600 mm (24 in) long	—		
SOP-E34-900A 900 mm (36 in) long	SOP-E12-900A 900 mm (36 in) long	SOP-E12-900AC 900 mm (36 in) long		
SA-M36E12			<ul style="list-style-type: none"> • Adapter from M36 thread to 12-14 NPSM thread • Streamlined black plastic mounting base adapter/cover • Drilled hole 	
SA-M36SOP			<ul style="list-style-type: none"> • M36 thread adapter with clearance for ¾ pipe mount • Streamlined black plastic mounting base adapter/cover • Drilled hole 	

Pipe Mounting Flange

Model	Features	Construction	
SA-F12	<ul style="list-style-type: none">Elevated-use stand-off pipes (½ in, NPSM/DN15)M5 mounting hardware and nitrile gasket included	Die-cast zinc base with black paint	

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Document title: K100 Basic Daylight Visible Beacon - DC Datasheet
Part number: 231996
Revision: A
Original Instructions
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