Edwards Signaling™

Description

The 125XBRi Series Chameleon Multi-Status LED Indicator is a UL and cUL listed, multi-color LED signaling appliance in a NEMA 4X rated enclosure. The indicator can be panel or conduit mounted. A protective guard, Cat. No. 125GRD, is also available.

The lights are available in 24V DC and 120V 50/60 Hz. They are available in either Red/Blue/Amber or Red/Green/Amber.

Edwards Signaling's NEW 125XBRi Multi-status Indicator is more "chameleon-like" than ever. With our new adaptive design - one device does it all. With a quick change to the new 125 Chameleon's dip switch settings, these flexible multi-status indicators instantly adapt for use with or without control from an external PLC, PAC, or control relay. Now, regardless of the application you will have just the right device for the job with only half the inventory.

XTRA-SAFE Enabled

The Chameleon 125XBRi devices ship as standard with Edwards Signaling's XTRA-SAFE™ Technology (patent pending) Enabled. XTRA-SAFE multi-status indicating devices employ patented combinations of color AND flash-rate to provide more definite status indication to those who are color-blind. With XTRA-SAFE, when Chameleon multi-status indicators are turned red, they pulse at a rate of 240 flashes per minute, further emphasizing the urgency which the color red typically connotes. When amber, these devices pulse at a "less urgent" rate of 120 flashes per minute. When Chameleon multi-status indicators are turned blue or green and no other colors are energized, the Chameleon devices remain "steady-on" and do not flash. Even in extreme cases where no color is perceived, flash-rate variation provides a redundant layer of visual indication.

When XTRA-SAFE Technology is enabled, and multiple colors are energized, the device will cycle through the energized colors at the following pre-set flash-rates:

Red: 240 FPM
Amber: 120 FPM
Green or Blue: 65 FPM

XTRA-SAFE Disabled

While in most cases, the added layer of safety gained by operating a multi-status indicator with XTRA-SAFE Technology is desirable, some applications may not require differentiation in flash rates. In other applications, changes do not correspond to escalating levels of urgency. The adaptive design of the new Chameleon 125 XBRi allows the product to be adapted to accommodate these requirements by configuring the dipswitches as shown in Figure 1 (Applications WITHOUT a separate PLC or Controller - XTRA-SAFE Technology Disabled). With XTRA-SAFE Disabled, when red or amber,

the unit pulses at a rate of 65 flashes per minute. When Chameleon multi-status indicators are turned green or blue and no other colors are energized, the Chameleon devices remain "steady on" and do not flash.

When XTRA-SAFE Technology is disabled, and multiple colors are energized, the device will cycle through all energized colors at 65 FPM.

Externally Controlled

The Chameleon multi-status indicators can also be used in applications where they will be controlled "externally" using a Programmable Logic Controller (PLC) or other such external controller. When externally controlled by a PLC, activation of colors and flash-rate are fully customizable, and can be programmatically determined. In applications, where multiple colors are activated simultaneously, the lights operate on a priority with red highest, amber second and blue or green, the lowest. Refer to Figure 1 (Applications WITH a separate PLC or Controller).

Wire color corresponds with each indicated color.

Red wire = Red LED's
Yellow wire = Amber LED's
Blue with Green tracer wire = Green or Blue LED's

Electrical Specifications

GRAY BASE	BLACK BASE	
Catalog Number	Catalog Number	Electrical Specs
Red, Green, Amber		
125XBRiRGA24D	125XBRiRGA24DB	24V DC, 0.150A
125XBRiRGA120A	125XBRiRGA120AB	120V AC*, 0.100A
Red, Blue, Amber		
125XBRiRBA24D	125XBRiRBA24DB	24V DC, 0.150A
125XBRiRBA120A	125XBRiRBA120B	120V AC*, 0.100A

* 120V AC 50/60 Hz

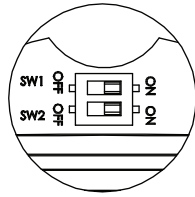## Mechanical Specifications

Outdoor Locations
Temperature Ratings .... -31F to +150F (-35C to +66C)
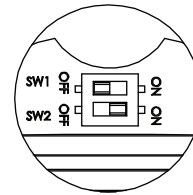
Installation

> ⚠ **WARNING**
>
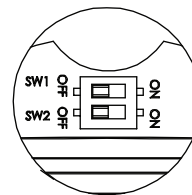> **To prevent electrical shock, ensure that power is turned off before installing the signal.**

The 125XBRi Multi-Status indicator is shipped with XTRA-SAFE Technology Enabled. The unit offers two other field selectable options: (1) for applications without a separate PLC or controller with the XTRA-SAFE Technology disabled or (2) for applications with a separate PLC or controller. For more information on the features, refer to the description. For settings, refer to Figure 1.

XTRA-SAFE Enabled

> ⚠ **WARNING**
>
> **To avoid risk of injury, install lens before energizing the unit and do not remove or insert light source when unit is energized.**

1. Remove (4) screws securing the lens to the base from bottom of base (Figure 2) and remove lens.

   - Applications *without* a separate PLC or Controller - XTRA-SAFE Technology Disabled: Set dipswitch SW1 to the OFF position and SW2 to the ON position.

XTRA-SAFE Disabled

   - Applications *with* a separate PLC or Controller - Set dipswitches SW1 and SW2 to the OFF position.

With a PLC or other External Controller

2. Replace lens on base and secure with (4) screws removed in step 1.

Applications WITHOUT a PLC or Controller* - XTRA-SAFE Technology Enabled (Factory Default)

Applications WITHOUT a PLC or Controller* - XTRA-SAFE Technology Disabled

Applications WITH a PLC or Controller*

*It is generally recommended that both dipswitches, SW1 and SW2, be set to OFF for applications using an external Programmable Logic Controller (PLC) or other external controller. A PLC or controller, however, can be used with any of the shown configurations.

Figure 1. Dipswitch Settings
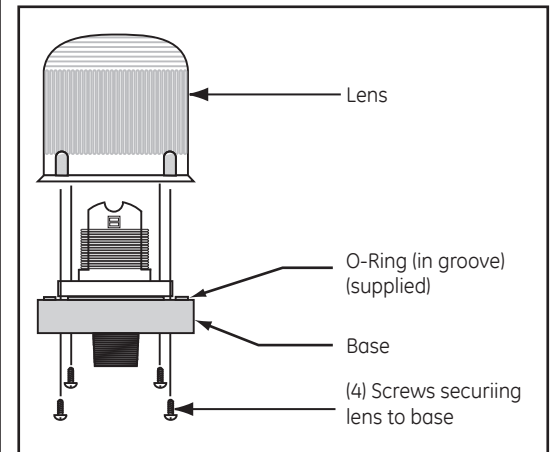
Figure 2. Removing the Lens

Table 2. PLC Compatibility

GRAY BASE	BLACK BASE				
Catalog Number	Catalog Number	Operating Voltage (Volts)	Max. off state leakage current (mA)	Continuous on current (mA)	Surge (inrush/duration) (A/µSeconds)
125XBRiRGA24D	125XBRiRGA24DB	24V DC	5	150	28.5/65
125XBRiRBA24D	125XBRiRBA24DB				
125XBRiRGA120A	125XBRiRGA120AB	120V AC 50/60 Hz	5	100	28.5/212
125XBRiRBA120A	125XBRiRBA120B				

Conduit Mounting (Figure 3)

> ### ⚠ WARNING
>
> **To avoid risk of injury, install lens before energizing the unit.**

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1. Thread the 18" (457 mm) signal wire leads through either 1/2" or 3/4" conduit into an approved conduit outlet box. (Product is supplied with a double threaded - 1/2" internal and 3/4" external - conduit hub.)

> ### ⚠ WARNING
>
> **To prevent electrical shock, disconnect power before removing the lens.**

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2. Thread the conduit onto the base of the signal.

Panel Mounting (Figure 4)

Note: *When panel mounting these beacons, the surface and construction details of the panel must be taken into consideration in order to ensure that the integrity of the outdoor, NEMA 4X rating is fully maintained. Installer should evaluate.*

1. Place the mounting gasket (supplied) over the hole in the panel and route the signal wires through the gasket and the hole in the panel.

2. Insert the base through the hole in the panel and screw the locking nut (supplied), with the raised locking edge facing the mounting surface, onto the base to secure the beacon.
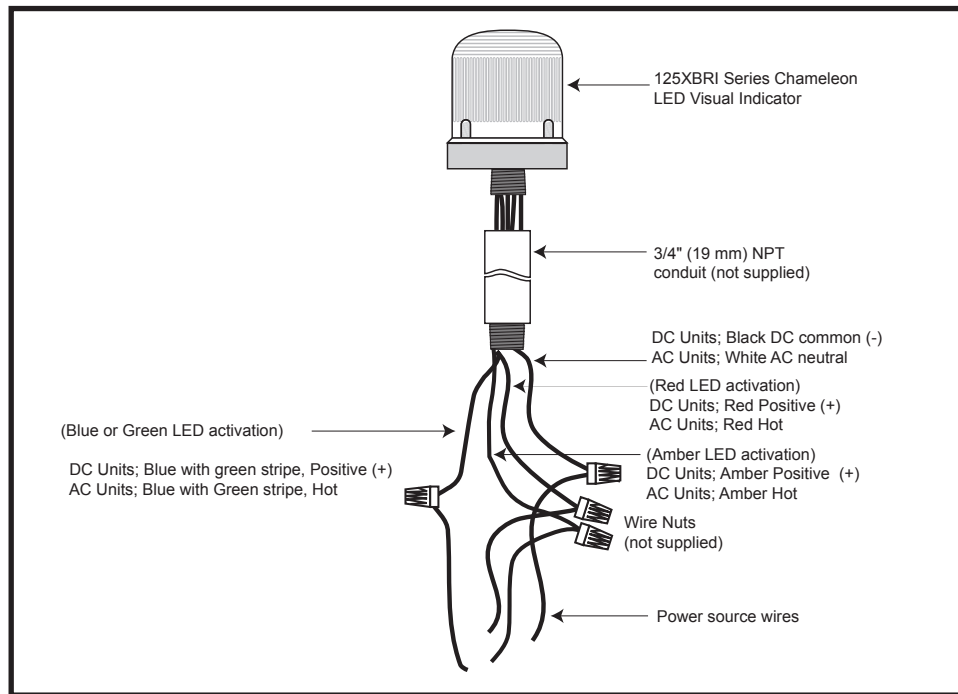

125XBRI Series Chameleon LED Visual Indicator

3/4" (19 mm) NPT conduit (not supplied)

DC Units; Black DC common (-)
AC Units; White AC neutral

(Red LED activation)
DC Units; Red Positive (+)
AC Units; Red Hot

(Amber LED activation)
DC Units; Amber Positive (+)
AC Units; Amber Hot

Wire Nuts (not supplied)

(Blue or Green LED activation)

DC Units; Blue with green stripe, Positive (+)
AC Units; Blue with Green stripe, Hot

Power source wires

Figure 3. Conduit Mounting (3/4" Shown)

125XBRI Series Chameleon LED Visual Indicator

Gasket (supplied)

Locking Nut - 1.3625" OD (supplied)

Control panel

Wire nuts (not supplied)

DC Units; Black DC common (-)
AC Units; White AC neutral

(Blue or Green LED activation)
DC Units; Blue with green stripe, Positive (+)
AC Units; Blue with green stripe, Hot

(Red LED activation)
(DC Units; Red positive (+)
AC Units Red Hot

(Amber LED activation)
DC Units; Amber Positive (+)
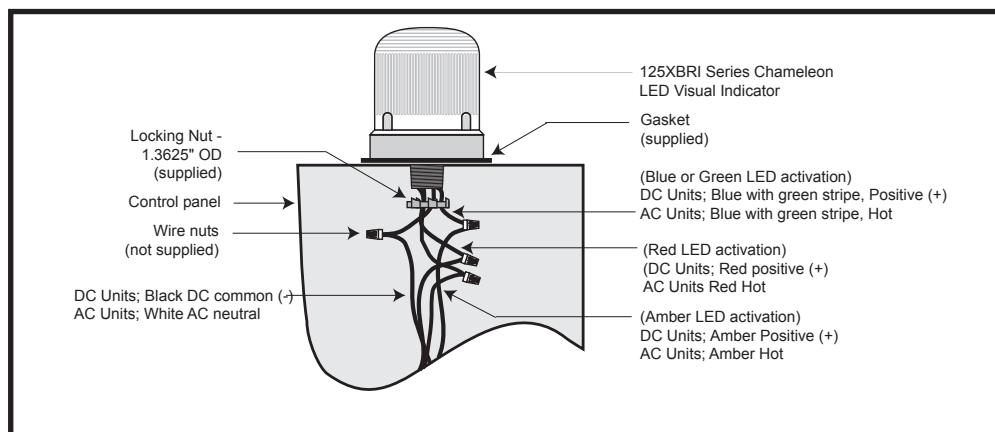AC Units; Amber Hot

Figure 4. Panel Mounting

Wiring (Refer to Figures 3 and 4)

AC models

1. There are four 18" wire leads: white (neutral), red (for activation of red LEDs), blue with green stripe (for activation or green or blue LEDs--depending on model) and amber (for activation of amber LEDs).

   Using wire nuts, connect white lead to AC neutral and connect each of the other three leads to AC hots.

DC models

1. There are four 18" wire leads: black (negative), red (for activation of red LEDs), blue with green stripe (for activation of green or blue LEDs--depending on model) and amber (for activation of amber LEDs).

   Using wire nuts, connect black lead to DC negative and connect each of the other three leads to DC positives.

2. Turn on power and verify that the signal operates properly.

Maintenance

Cleaning

The module lens exterior surfaces should be periodically cleaned with a soft clean cloth using water and a mild detergent to maintain optimum light visibility. Disconnect power before cleaning.

Lens Replacement

1. Remove (4) screws securing the lens to the base from bottom of base and remove lens.

2. Replace lens on base and secure with (4) screws removed in step 1 (Figure 2).

Table 3. Replacement Parts

GRAY BASE	BLACK BASE		
Catalog Number	Catalog Number	Replacement Lens	Replacement Lamp
125XBRiRBA24D	125XBRiRBA24DB	125LC	The 148,000 hour** lamp is permanently installed.
125XBRiRGA24D	125XBRiRGA24DB		
125XBRiRBA120A	125XBRiRBA120AB	125LC	The 148,000 hour** lamp is permanently installed.
125XBRiRGA120A	125XBRiRGA120AB		

*Median LED Life (L70) based on manufacturer's projections. Refer to http://www.philipslumileds.com/pdfs/WP15.pdf.