



# Chameleon<sup>™</sup>

## 105XBRI Series XTRA-BRITE<sup>™</sup>

### LED Multi-Status Indicator in NEMA 4X Enclosures

The Edwards 105XBRI Series XTRA-BRITE<sup>™</sup> LED Multi-Status Indicator is a heavy duty, reliable UL and cUL listed, multi-color visual signaling device. It features a corrosion resistant Type 4X enclosure that is UL listed for Marine use, and can be panel or conduit mounted. The base is manufactured from glass-reinforced thermoplastic polyester resin and the double fresnel lens is made of shatter resistant polycarbonate.

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

**Edwards Signaling's NEW 105XBRI Multi-status Indicator is more "chameleon-like" than ever.**



#### **New Adaptive Design: One device does it all**

With a quick change to the new 105XBRI 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<sup>™</sup> Enabled**

The Chameleon 105XBRI devices ship as standard with Edwards Signaling's XTRA-SAFE<sup>™</sup> Technology (patent pending) Enabled. XTRA-SAFE<sup>™</sup> 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<sup>™</sup>, when Chameleon multi-status indicators are turned red, they pulse at a rate of 240 flashes per minute, further emphasizing the urgency that 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 activated, 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<sup>™</sup> 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<sup>™</sup> Disabled**

While in most cases, the added layer of safety gained by operating a multi-status indicator with XTRA-SAFE<sup>™</sup> 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 105XBRI allows the product to be adapted to accommodate these requirements by a simple dip switch configuration. With XTRA-SAFE<sup>™</sup> 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 activated, the Chameleon devices remain "steady on" and do not flash.

When XTRA-SAFE<sup>™</sup> Technology is disabled, and multiple colors are energized, the device will cycle through the 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.

The Chameleon has three different configurations for mounting that include the 105BX junction box, the 105BM mounting bracket and the 105PM pipe mount attachment. The unit can be mounted on 3/4" NPT using the 105PM pipe attachment. It can also be surface or wall mounted using the 105BX junction box, or wall mounted using the 105BX junction box with the 105BM mounting bracket.

All three mounting options are non-conductive plastic fixtures and do not provide earth-ground continuity when attached to metallic wiring systems. They are intended for use with the 105XBRI Chameleon visual signals only when earth-grounding is not required. They can only be used with metallic wiring systems when installed at the end of the run.

#### **105XBRI Features**

- Available in 24V DC or 120V AC
- Available in Red/Blue/Amber or Red/Green/Amber
- Three mounting bases: 3/4" pipe mount attachment, outlet box attachment, or wall mounting bracket
- PLC Compatible
- XTRA-SAFE<sup>™</sup> Technology enables status indication for those who are color blind
- Dip switch settings for use with or without external control
- Immune to shock and vibration
- -31°F to 150°F (-35° to 66°C) operating temperature

## 105XBRI Series Chameleon

Description	Cat. No.	LED Colors	Projected LED Life (L70)*	Operating Voltage	Current	Replacement Lens
LED Multi-Status Indicator in NEMA 4X Enclosure	105XBRIrGA24D	Red, Green, Amber	148,000 hours	24 VDC	0.150 A	105-LC
	105XBRIrGA120A	Red, Green, Amber	148,000 hours	120 VAC 50/60 Hz	0.100 A	105-LC
	105XBRIrBA24D	Red, Blue, Amber	148,000 hours	24 VDC	0.150 A	105-LC
	105XBRIrBA120A	Red, Blue, Amber	148,000 hours	120 VAC 50/60 Hz	0.100 A	105-LC

\*LED Manufacturer's Median Projected LED Life for LUXEON Rebel LEDs (L70 at 85°C and  $T_{junction}$  98°C). Actual LED life will vary inversely with ambient temperature, voltage, driver current, junction temperature and duty-cycle at which the signaling device is operated. Please refer to <http://www.philipslumileds.com/pdfs/WP15.pdf>.

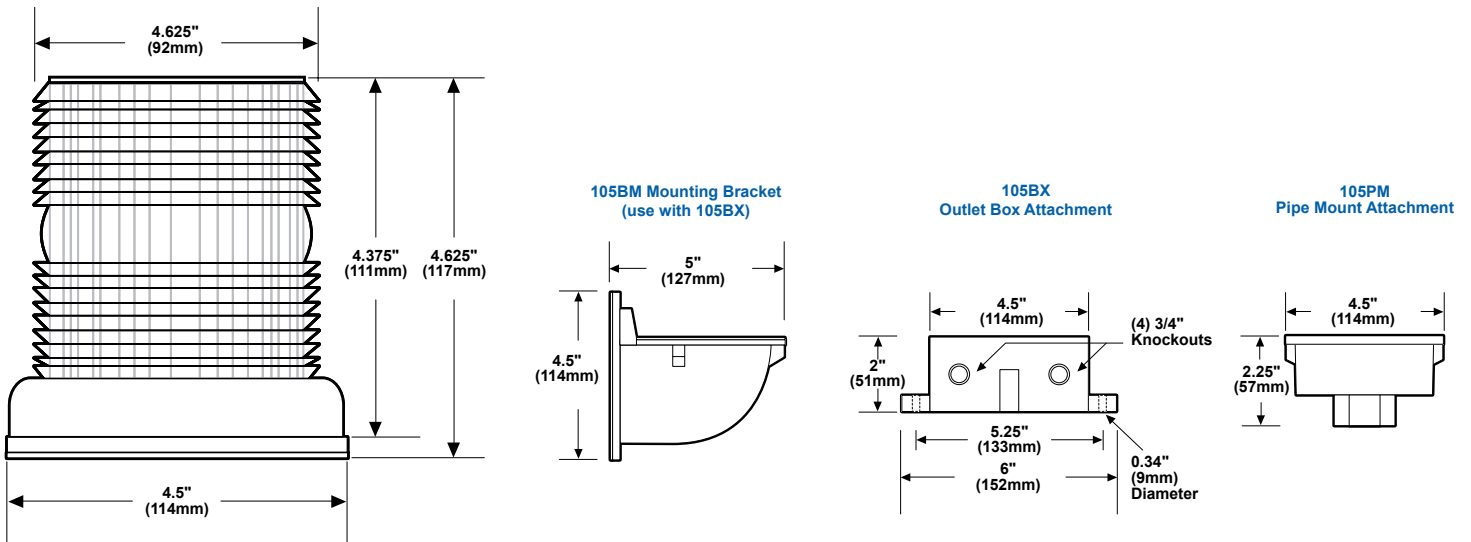
## PLC Output to Meet Input Parameter Specifications

Cat. No.	Operating Voltage	Max. Off State Leakage Current (mA)	Continuous On Current (mA)	Surge (inrush/duration) (A/μSeconds)
105XBRIrGA24D	24 VDC	5	150	28 A / 65 μSeconds
105XBRIrGA120A	120 VAC 50/60 Hz	5	100	28.5 A / 212 μSeconds
105XBRIrBA24D	24 VDC	5	150	28 A / 65 μSeconds
105XBRIrBA120A	120 VAC 50/60 Hz	5	100	28.5 A / 212 μSeconds

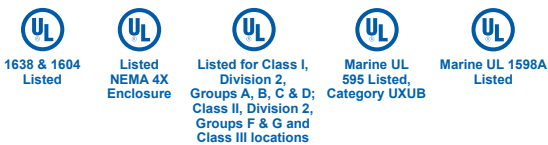
## Hazardous Location Ratings

Cat. No.	Class	Division	Group	Operating Temperature
105XBRIrGA24D 105XBRIrGA120A	I	2	A, B, C, D	T5 (100°C, 212°F)
	II	2	F, G	T5 (100°C, 212°F)
	III			T5 (100°C, 212°F)
105XBRIrBA24D 105XBRIrBA120A	I	2	A, B, C, D	T6 (85°C, 185°F)
	II	2	F, G	T6 (85°C, 185°F)
	III			T6 (85°C, 185°F)

## Dimensional Drawing



## Agency Approvals



41 Woodford Avenue  
Plainville, CT 06062  
1.800.336.4206  
[www.edwardssignaling.com](http://www.edwardssignaling.com)  
© Copyright 2010 Edwards Signaling

Data Sheet ES001-0113 Issue 1  
Not to be used for installation purposes.  
Page 2 of 2



# Chameleon<sup>™</sup>

## 105XBRI Series XTRA-BRITE<sup>™</sup>

### LED Multi-Status Indicator in NEMA 4X Enclosures

The Edwards 105XBRI Series XTRA-BRITE<sup>™</sup> LED Multi-Status Indicator is a heavy duty, reliable UL and cUL listed, multi-color visual signaling device. It features a corrosion resistant Type 4X enclosure that is UL listed for Marine use, and can be panel or conduit mounted. The base is manufactured from glass-reinforced thermoplastic polyester resin and the double fresnel lens is made of shatter resistant polycarbonate.

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

**Edwards Signaling's NEW 105XBRI Multi-status Indicator is more "chameleon-like" than ever.**



#### **New Adaptive Design: One device does it all**

With a quick change to the new 105XBRI 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<sup>™</sup> Enabled**

The Chameleon 105XBRI devices ship as standard with Edwards Signaling's XTRA-SAFE<sup>™</sup> Technology (patent pending) Enabled. XTRA-SAFE<sup>™</sup> 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<sup>™</sup>, when Chameleon multi-status indicators are turned red, they pulse at a rate of 240 flashes per minute, further emphasizing the urgency that 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 activated, 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<sup>™</sup> 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<sup>™</sup> Disabled**

While in most cases, the added layer of safety gained by operating a multi-status indicator with XTRA-SAFE<sup>™</sup> 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 105XBRI allows the product to be adapted to accommodate these requirements by a simple dip switch configuration. With XTRA-SAFE<sup>™</sup> 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 activated, the Chameleon devices remain "steady on" and do not flash.

When XTRA-SAFE<sup>™</sup> Technology is disabled, and multiple colors are energized, the device will cycle through the 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.

The Chameleon has three different configurations for mounting that include the 105BX junction box, the 105BM mounting bracket and the 105PM pipe mount attachment. The unit can be mounted on 3/4" NPT using the 105PM pipe attachment. It can also be surface or wall mounted using the 105BX junction box, or wall mounted using the 105BX junction box with the 105BM mounting bracket.

All three mounting options are non-conductive plastic fixtures and do not provide earth-ground continuity when attached to metallic wiring systems. They are intended for use with the 105XBRI Chameleon visual signals only when earth-grounding is not required. They can only be used with metallic wiring systems when installed at the end of the run.

#### **105XBRI Features**

- Available in 24V DC or 120V AC
- Available in Red/Blue/Amber or Red/Green/Amber
- Three mounting bases: 3/4" pipe mount attachment, outlet box attachment, or wall mounting bracket
- PLC Compatible
- XTRA-SAFE<sup>™</sup> Technology enables status indication for those who are color blind
- Dip switch settings for use with or without external control
- Immune to shock and vibration
- -31°F to 150°F (-35° to 66°C) operating temperature

## 105XBRI Series Chameleon

Description	Cat. No.	LED Colors	Projected LED Life (L70)*	Operating Voltage	Current	Replacement Lens
LED Multi-Status Indicator in NEMA 4X Enclosure	105XBRIrGA24D	Red, Green, Amber	148,000 hours	24 VDC	0.150 A	105-LC
	105XBRIrGA120A	Red, Green, Amber	148,000 hours	120 VAC 50/60 Hz	0.100 A	105-LC
	105XBRIrBA24D	Red, Blue, Amber	148,000 hours	24 VDC	0.150 A	105-LC
	105XBRIrBA120A	Red, Blue, Amber	148,000 hours	120 VAC 50/60 Hz	0.100 A	105-LC

\*LED Manufacturer's Median Projected LED Life for LUXEON Rebel LEDs (L70 at 85°C and T<sub>junction</sub> 98°C). Actual LED life will vary inversely with ambient temperature, voltage, driver current, junction temperature and duty-cycle at which the signaling device is operated. Please refer to <http://www.philipslumileds.com/pdfs/WP15.pdf>.

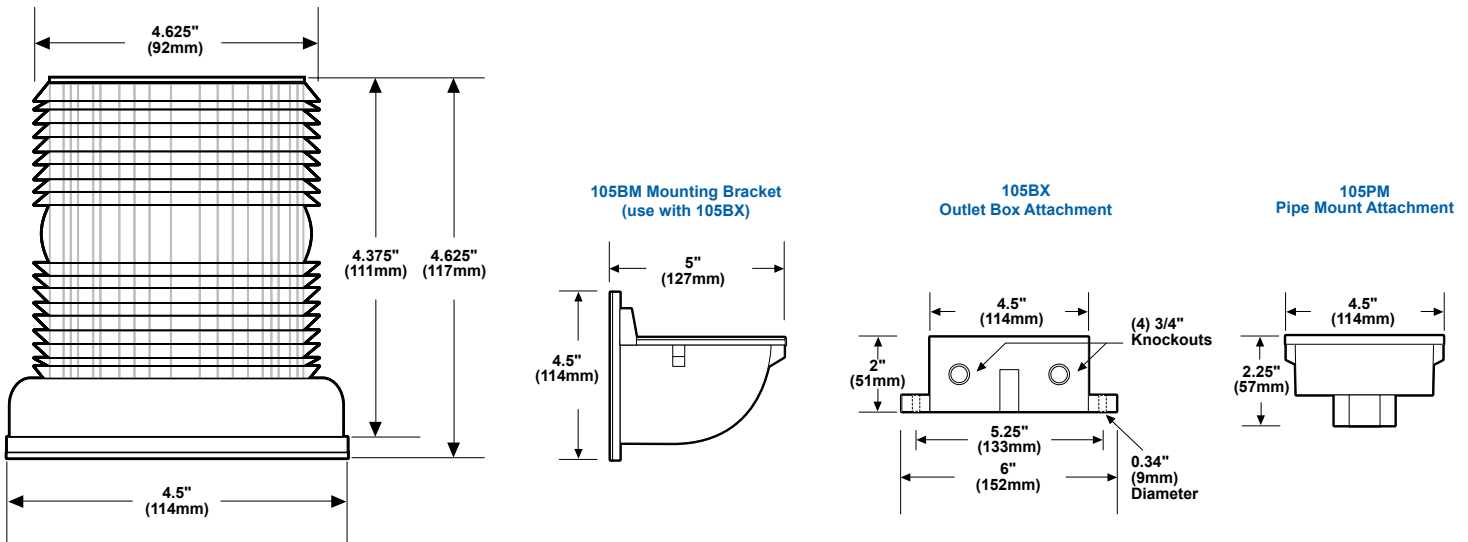
## PLC Output to Meet Input Parameter Specifications

Cat. No.	Operating Voltage	Max. Off State Leakage Current (mA)	Continuous On Current (mA)	Surge (inrush/duration) (A/μSeconds)
105XBRIrGA24D	24 VDC	5	150	28 A / 65 μSeconds
105XBRIrGA120A	120 VAC 50/60 Hz	5	100	28.5 A / 212 μSeconds
105XBRIrBA24D	24 VDC	5	150	28 A / 65 μSeconds
105XBRIrBA120A	120 VAC 50/60 Hz	5	100	28.5 A / 212 μSeconds

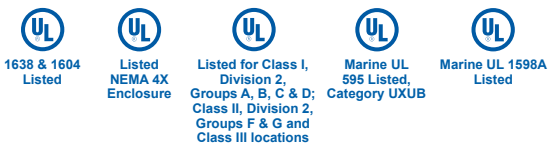
## Hazardous Location Ratings

Cat. No.	Class	Division	Group	Operating Temperature
105XBRIrGA24D 105XBRIrGA120A	I	2	A, B, C, D	T5 (100°C, 212°F)
	II	2	F, G	T5 (100°C, 212°F)
	III			T5 (100°C, 212°F)
105XBRIrBA24D 105XBRIrBA120A	I	2	A, B, C, D	T6 (85°C, 185°F)
	II	2	F, G	T6 (85°C, 185°F)
	III			T6 (85°C, 185°F)

## Dimensional Drawing



## Agency Approvals



41 Woodford Avenue  
Plainville, CT 06062  
1.800.336.4206  
[www.edwardssignaling.com](http://www.edwardssignaling.com)  
© Copyright 2010 Edwards Signaling

Data Sheet ES001-0113 Issue 1  
Not to be used for installation purposes.  
Page 2 of 2