

# AXON

## LED ICAO Rapid Exit Taxiway Indicator Light (RETIL)

Unidirectional Inset, 8-inch and 12-inch



### Compliance with Standards

|                  |                        |
|------------------|------------------------|
| <b>ICAO</b>      | Annex 14, Volume 1     |
| <b>EASA</b>      | CS-ADR-DSN             |
| <b>Australia</b> | MOS 139                |
| <b>Canada</b>    | TP 312                 |
| <b>IEC</b>       | 61827                  |
| <b>NATO</b>      | STANAG 3316            |
| <b>STAC</b>      | SPE/STAC/SE/E/VIS/6008 |
| <b>UK</b>        | CAP 168                |
| CE               |                        |

### Uses

#### ICAO

- Rapid exit taxiway indicator light (RETIL)

### Features and Benefits

#### Efficiency

- EQ has an integrated ILCMS remote for use with the LINC 360 system providing high data capacity and resisting degradation from various types of radio effects to provide a superior communication platform
- Precision aimed optics enhancing photometric performance and complementing extended LED life
- Reduced bottom pan profile allowing for very shallow base can installation
- LED pulse width modulated (PWM) at 400 Hz optimizing LED performance and eliminating perceptible flicker to a moving human observer throughout the range of brightness steps
- Operates at all steps of constant current regulator technologies designed in compliance with IEC or FAA requirements
- Fully dimmable lights, conforming to the dimming curve of traditional halogen lights
- Low protrusion, high-intensity, Style 3 ( $\leq 6.35$  mm) inset light fixtures
- No negative slope in front of the prisms

### Sustainability

- Fully encapsulated all-in-one universal power supplies for Runway, Taxiway, Approach and Omni inset families
- Latest generation LEDs providing a long-lasting light source with high efficiency and low power consumption
- Reinforced top cover substantially exceeding standards to improve durability and longevity (directional beams only)
- One single family of fixtures covering all runway, taxiway and approach applications
- IP68 rated enclosure designed for harsh environments; all fastenings are stainless steel
- Reinforced prism available as an option
- Compatible with existing infrastructure allowing for direct replacement of existing LED inset fixtures

### Safety

- Improved mechanical design to strengthen and consolidate components, improving the customer maintenance experience
- Fail-open option for compatibility with legacy monitoring systems and optimization of advanced control and monitoring systems
- Failed LED detection as required by Engineering Brief 67D
- Robust lightning protection complying with ANSI/IEEE C62.41-1991; Location Category C2 as required by FAA Engineering Brief 67 Category C2 is defined as a 1.2/50  $\mu$ S – 8/20  $\mu$ S combination wave, with a peak voltage of 10,000 V and a peak current of 5,000 A

## Ordering Code

|    | Application              | Standard(s)              | Market Specific          | Dimensions               | Prism                    | Beam Orientation         | Toe-in                   | Color - Side 1 (Left)    | Color - Side 2 (Right)   | Power and Monitoring     | Connector and Cable <sup>2</sup> | Options                  | Version                  |
|----|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|----------------------------------|--------------------------|--------------------------|
| RS | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>         | <input type="checkbox"/> | <input type="checkbox"/> |

### Application

RY = Rapid Exit Taxiway Indicator Light (RETIL)

### Standard(s)

3 = ICAO<sup>1</sup>

### Market Specific

0 = None

4 = German MIL 7-step FO

### Dimensions

1 = 8 inch (203 mm) diameter, 2 bolt

2 = 12 inch (305 mm) diameter, 11.25 inch BC (285 mm)

### Prism

S = Standard prism

R = Reinforced prism

### Beam Orientation

1 = Unidirectional

### Toe-in

N = None

### Color - Side 1 (Left)

Y = Yellow

### Color - Side 2 (Right)

N = Not Applicable

### Power and Monitoring

M = 2.8 - 6.6 A, Fail-Open Monitoring<sup>2</sup>

R = 2.8 - 6.6 A, EQ Integrated LINC 360

### Connector and Cable<sup>2</sup>

1 = 1 x Style 6 2-Pole Plug, 2 Individual Wires<sup>3</sup>

2 = 1 x Style 1 2-Pole Plug, Jacketed SO 2 Core Cable<sup>3</sup>

5 = 1 x Flat 3-Pole Plug, 3 Individual Wires

### Options

0 = None

1 = Arctic Kit

### Version

1 = Version 1

## Ordering Code Notes

1. Includes standards NATO, EASA, STAC, TP 312 and MOS 139.
2. EQ light fixtures are only available as a one connector option.
3. All Style 1 corded fixtures will include a ground lug. All Style 6 or 3-pole corded fixtures will be provided with grounding screw(s).

## Power Supply Options

- Monitored — integrated fail-open technology
- EQ with integrated ILCMS with OFDM technology for use with LINC 360 system

## Installation and Maintenance

The light fixture can be installed in a 12-inch or an 8-inch base. Gaskets are sold separately. Refer to the user manual INTEROPERABILITY appendix to identify the correct gasket and bolts for your specific base and ensure a reliable fit.

## Operating Conditions

|                              |                                      |
|------------------------------|--------------------------------------|
| <b>Operating temperature</b> | -55 °C to +55 °C / -67 °F to +131 °F |
| <b>Storage temperature</b>   | -60 °C to +80 °C / -76 °F to +176 °F |
| <b>Humidity</b>              | Up to 100%                           |

## Dimensions and Weight

|                   |                      |                        |
|-------------------|----------------------|------------------------|
| <b>Dimensions</b> | 203 mm (8 in)        | 305 mm (12 in)         |
| <b>Weight</b>     | 3 kg / 6.6 lb (8 in) | 6.8 kg / 15 lb (12 in) |

## ANNEX

### 8-inch and 12-inch light fixtures without Arctic Kit

| Fixture type – 1 cord set <sup>1</sup> | Fixture load | Isolation transformer |        | CCR load |
|--|--------------|-----------------------|--------|----------|
|  |              | Wattage               | Load   |          |
| Rapid exit taxiway indicator light     | 20 VA        | 45 W                  | 7.2 VA | 27.2 VA  |

#### Note:

- EQ fixtures:
  - The isolation transformer must have an additional 8 VA available above the fixture load for communication bandwidth. Size transformer to next size up to assure additional 8 VA coverage
  - Legacy BRITE II or AGLAS 2 systems — Order "M" power supply
- Fail-open fixtures:
  - The maximum rating for the isolation transformer is 150 W (a correctly calibrated CCR is important to achieve an accurate fail open response)
- Additional voltage loss not included in the above table which must be factored into the circuit load calculation:
  - Primary cables will result in a higher CCR load
  - Longer secondary cables may result in a larger size isolation transformer requirement
- Efficiency of the isolation transformer depends on the manufacturer of the transformer
- See runway user manual UM-5055 for other power supplies

For more information about the product, including manuals and certifications, please see our Product Center on the ADB SAFEGATE website: [www.adbsafegate.com](http://www.adbsafegate.com).