

AXON

LED ICAO Runway Threshold, Threshold/End, End and Threshold Wingbar

Elevated, Uni & Bidirectional



AXON

Compliance with Standards

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

Uses

ICAO

- Runway Threshold
- Runway Threshold Wingbar
- Runway Threshold/End
- Runway End

Features and Benefits

Efficiency

- Infra Red for EFVS / NVG compatibility. Highly configurable to suit operational requirement
- LED is PWM-modulated at 400 Hz to optimize performance and eliminate human flicker perception, regardless of brightness levels
- Lights are fully dimmable and conform to FAA EB 67D and ICAO Annex 14 dimming curve
- Dedicated aiming device allows easy leveling and azimuth aiming of the light
- Three screws allow for 4° leveling adjustment of the fixture after installation

Sustainability

- Independent Product Carbon Footprint calculation to support in product lifecycle analysis
- Modular housing maximizes parts commonality and enables midlife upgrades
- Options for either glass or UV-resistant polycarbonate outer lens
- A single fixture family covers all elevated approach, runway and stop bar applications
- IP68 & IP69K rated enclosure designed for harsh environments; all fastenings are stainless steel
- This product is a direct replacement for ADB Safegate LED elevated fixtures, thanks to its mechanical and photometric backwards compatibility
- Finishing: Stainless steel hardware, aluminum body, phosphated aviation yellow electrostatic polyester powder coating
- Based on the LED manufacturer's ratings & calculations, we guarantee a LED life expectancy L70 higher than 50,000 operation hours
- Aerodynamic and lightweight weight designed to withstand heaviest jet blast

Safety

- Identifiable daytime recognition, with large surface area colored optical module surround
- Modular mechanical design consolidates and strengthens product components for faster, easier maintenance and reconfiguration
- Failed-LED Detection as required by Engineering Brief 67D
- The product meets the lightning protection criteria of ANSI/IEEE C62.41-1991 and FAA Eng. Brief 67's Location Category C2 requirements, which outlines a 1.2/50 - 8/20 μ s combination wave, peaking at 10,000 V and 5,000 A

Ordering Code

Application	Standards	Market Specific	Lens Type	Toe-in	Color - Side 1 (Left)	Color - Side 2 (Right)	Omnidirectional	Power Supply	Cable and Connector	Fixture Height	Coupling	Option 2	Advanced Connectivity	Refurbished	Version control
A															

Application

RT = Runway threshold/end
 RN = Runway end
 RW = Runway threshold wingbar

Standards

3 = ICAO

Market Specific

0 = None
 4 = German MIL 7-step

Lens Type

G = Glass
 P = UV resistant polycarbonate

Toe-in

L = Side 1 - left toe-in
 R = Side 2 - right toe-in
 N = No toe-in

Color - Side 1 (Left)

R = Red
 F = Green
 N = None (obscured)

Color - Side 2 (Right)

R = Red
 F = Green
 N = None (obscured)

Omnidirectional

0 = None

Power Supply

S = No monitoring
 M = With monitoring

Cable and Connector

1 = 1 x style 6 2-pole plug, 2 individual wires¹
 2 = 1 x style 1 2-pole plug, jacketed SO 2 core cable²

Fixture Height

B = <350mm
 C = 14" OAH
 D = 20" OAH
 E = 24" OAH
 F = 30" OAH

Coupling

B = 2" 11TPI (BSP) coupling no base plate
 C = 2" 11.5TPI (NPS) coupling no base plate
 E = 2" 11TPI (BSP) flush break coupling no base plate
 F = 2" 11.5TPI (NPS) flush break coupling no base plate

Option 2

0 = None
 1 = Smart arctic kit
 3 = Near infra red
 4 = Smart arctic kit & near infra red

Advanced Connectivity

0 = 0

Refurbished

0 = 0

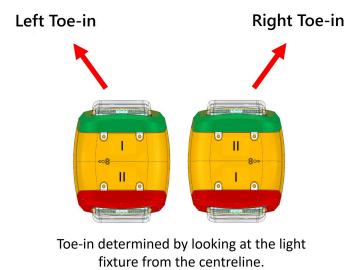
Version control

1 = 1

Ordering Code Notes

1. With separate earth for internal routing
2. With separate earth for external routing

Toe-in Coding



Note:

L/R is always referencing the F-Green color.

Power Supply

- Non-monitored power only
- Monitored — integrated fail-open technology

Maintenance and Installation

The light is made of an aluminum body, with mounting stem and frangible coupling, with three screws to allow for 4° leveling adjustment of the fixture after installation.



Operating Conditions

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

Dimensions and Weight

Dimensions	TBC	TBC
Weight	Min 2.7 kg (6 lb, 8-in)	TBC

ANNEX

ICAO Runway Threshold, Threshold/End, Wingbar, End

Fixture type ¹	Fixture load ²	Isolation transformer		CCR load
		Wattage	Load	
All Features Enabled (Arctic Kit & Infra Red)²				
Runway Threshold	27 VA	30 W / 45 W	5 VA	32 VA
Runway Threshold/End	40 VA	30 W / 45 W	8 VA	48 VA
Runway Threshold Wingbar	30 VA	30 W / 45 W	6 VA	36 VA
Runway End	20 VA	20 W / 25 W	6 VA	26 VA
Runway End/End	33 VA	30 W / 45 W	7 VA	40 VA

Notes

- Arctic Kit & Infra Red
- Fixture load listing is **all features enabled** (worst case scenario) according to FAA datasheet requirements. To maintain consistency, this logic is **also applied to ICAO specific datasheets**. To calculate actual fixture VA for a light configuration, please use the **Subtraction VA** in the table below to subtract from the fixture load.

Subtraction Overhead VA per Function

Fixture type	Subtraction Fixture VA
Arctic Kit	5 VA / 10 VA
Infra Red	3 VA / 6 VA

Note:

- Fail-open fixtures:
 - The maximum rating for the isolation transformer is 150 W
- 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 user manual for a complete overview of all variant power consumption data and other power supplies

For more information about the product, including manuals and certifications, please see the Product Center on the ADB SAFEGATE website: www.adbsafegate.com.