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AERO

Sirius - Taxiway Guidance Sign



Certified
According to
Standards

ICAO:	Annex 14, Volume I - Aerodrome Design and Operations
FAA:	AC 150/5345-44 - Specifications for runway and taxiway signs
NATO	STANAG 3316 - Airfield lighting
EASA	CS-ADR-DSN - Aerodromes design
AENA	PPT DIA/NOR/PPT/022
IAAE Canada	Aerodrome Standards and Recommended Practices -TP312

Application

Taxiway Guidance Sign has been designed to be used for Mandatory Signs, Information Signs and Location Signs

Features

- Very Low Power Consumption max. 12W per meter
- Medium power LED technology
- Lightweight, low-energy and environment friendly lighting fitting.
- Extensive use of aluminium alloys reduces fitting weight and eases handling in the field.

SC ELECTRO MAX SRL

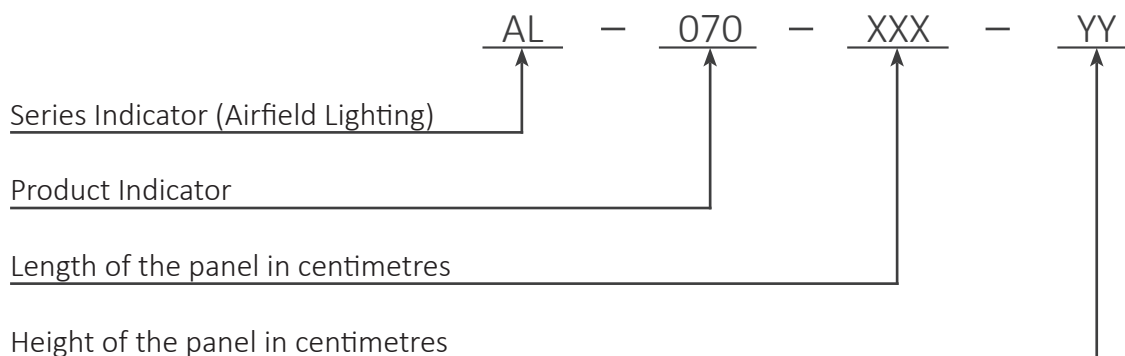
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Product Code



Note: Each ordering code shall be completed with the legend panels, colours and any additional options required.

Description

Housing	powder-coated aluminium, RAL 1004 (aviation yellow)
Front panel	4mm thick polycarbonate UV and abrasion resistant.
Cable gland	nickel-plated brass
Fastening system	powder-coated aluminium, RAL 1004 (aviation yellow)

The SIRIUS Taxiway Guidance Sign consist of a rigid, self-supporting aluminium extruded profile frame holding the front and rear panels, the LED strings and the diffuser. Construction is modular with commonality of mechanical and electrical components throughout the entire sign range.

The message is obtained by applying, on the inner face of the panel only, a self-adhesive film optimise for lighting applications using LED light sources and eliminating glare whilst providing a uniform colour.

The legs are mounted at the back of the sign; the position of the legs is adjustable over the complete length of the sign and the legs extend over the entire panel height participating actively in the sign's mechanical strength.

Environment

Temperature range	-40° to +55°
Degree of protection	IP 65 or better
Humidity	0 - 100%

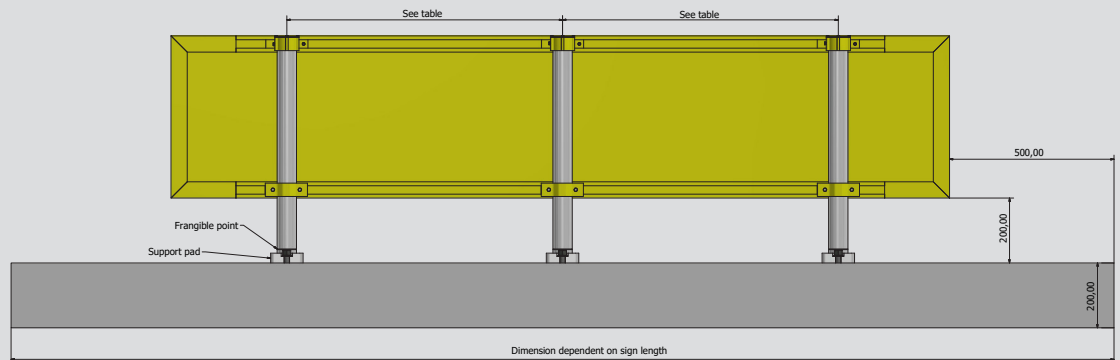
The message is guaranteed for a period of 10 years.

The sign is designed to withstand wind velocities up to 320 km/h.

The legs have provision for attaching an optional safety cable to hold the sign captive to the mounting flanges if the legs break.

Mounting

Sirius - Taxiway Guidance Signs have to be installed on a concrete foundation at the recommended distance from the runway or taxiway edge.



Low-weight construction allows for ease of handling and installation of the Sirius by two men. Legs flanges are secured on the foundation using expansion bolts.

Electrical Characteristics

Power consumption	12W per meter
Power supply	Type M - 110/230VAC from mains Type S - 2.8 up to 6.6A series circuit Solar power pack

Electrical Installation

The Taxiway Guidance Signs can be supplied in either a 110/230V AC powered configuration, a 2.8 up to 6.6A series circuit, or photovoltaic system. Please ensure that you connect the equipment to the correct supply.

Connecting to a Type M - 110/230VAC supply:

The 110/230V AC sign is supplied with a 3-core (3 x 1.0mm²) 1m flying lead. The overall diameter of the cable is nominally 7.5mm. Connect the free ends of the cable to the proper voltage source.

Connecting to a Type S - 2.8 up to 6.6A series circuit:

The sign is supplied with a 300mm flying lead and a factory fitted L-823 connector. The connector can be plugged directly into the secondary circuit.

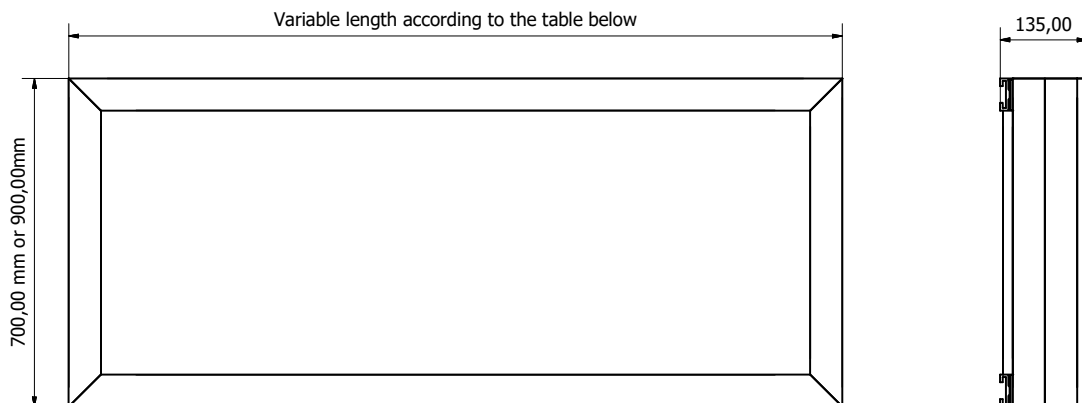
Connecting to a solar power pack supply:

The sign is supplied with a 2-core (2 x 1.0mm²) 1m flying lead. The overall diameter of the cable is nominally 7.5mm.

Mechanical Characteristics

Packaging

The high intensity runway guard light is supplied in a ISPM 15 - compliant wooden crate.



700mm or 900mm sign high (600mm or 800mm panel high)

Sign length in meter	1.00	1.15	1.30	1.45	1.60	1.75	1.90	2.05	2.20
Panel length in meter	0.90	1.05	1.20	1.35	1.50	1.65	1.70	1.95	2.10
Number of poles	2 poles					3 poles			

Sign length in meter	2.35	2.50	2.65	2.80	2.95
Panel length in meter	2.25	2.40	2.55	2.70	2.85
Number of poles	4 poles				

Photometric Characteristics

Photometric measurements - Luminance

	Average luminance (cd/m ²)			
	Yellow background	Red background	White lettering	Yellow lettering
Required	150 cd/m ²	30 cd/m ²	300 cd/m ²	150 cd/m ²
Calculated	567 cd/m ²	50.7 cd/m ²	346 cd/m ²	456 cd/m ²

	Max ratio of luminance between points	
	Yellow background	Red background
Required	1.5 : 1	1.5 : 1
Calculated	1.44	1.44

	Ratio between max and min values	
	Yellow background	Red background
Required	5 : 1	5 : 1
Calculated	1.64	1.72

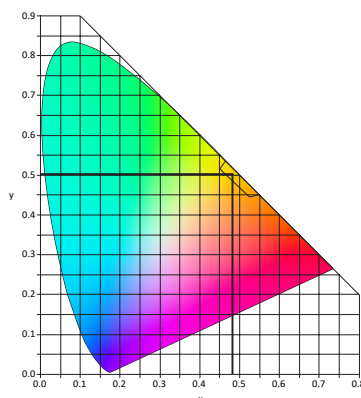
The brightness intensity values complies with:

ICAO requirements Annex 14 Vol.1, Appendix 4

Photometric Characteristics

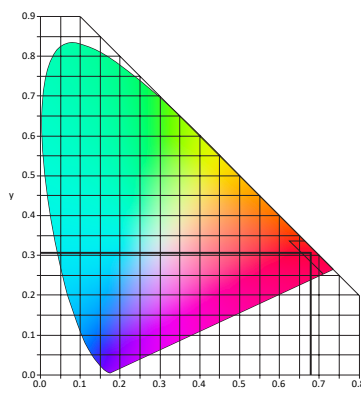
Emited light - trichromatic coordinates

Yellow
Background



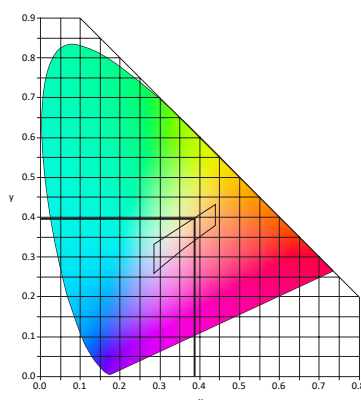
$x=0,482$
 $y=0,505$
 $z=0,013$

Red
Background



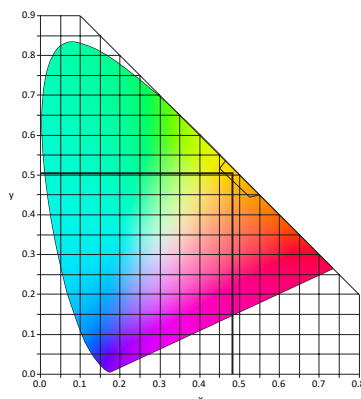
$x=0,684$
 $y=0,315$
 $z=0,001$

White
Lettering



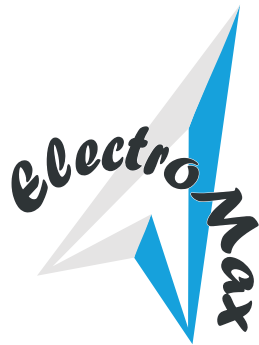
$x=0,390$
 $y=0,395$
 $z=0,215$

Yellow
Lettering



$x=0,480$
 $y=0,506$
 $z=0,014$

The measured trichromatic coordinates correspond to colour range requirements in:
ICAO Annex 14 - Aerodromes Vol.1, Figure A1-1-1b.
Colours for aeronautical ground lights (solid state lighting)



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