

Datasheet Quantec Beacon: MIRI - ICAO

The *Quantec beacon "MIRI - ICAO"* includes an *ICAO Medium-intensity Type B and C* LED obstacle light with an bracket.

The beacon completely integrates the control inside a compact housing. Upon the connection of the power supply, each obstacle light system is ready for immediate use.



MIRI - ICAO



MIRI - ICAO with MESH

Key features

- UTC synchronized flashing using GNSS with global coverage
 - GPS, QZSS, GLONASS, Galileo, Beidou
- Day and Night operation mode with different Light profiles (idle at day, red at night)
- 2 RS485 communication interfaces
- Support for Visibility meter and ModBus digital I/O
- Integrated logbook records on/off timestamps, events and statistics for more than 20 years.
- Built in over-voltage protection: Class III according to IEC61643-11
- Alarm contacts
- Maintenance free
- Corrosion resistant materials for all surfaces
- UV and ozone resistant optical units and seals
- Connection terminal and cable gland for individual installation

Configurable features

- Light profile switching via DIP Switch can be supported
- Operation mode for Day and Night can be switched by Astronomical clock or Integrated brightness sensors
- Day/Night relay for activating the tower lights
- Digital input to activate test-mode
- Customizable Light profiles

Technical specifications

General

Model name	MIRI - ICAO
Illuminants	24 red LEDs 4 infrared LEDs
Approvals	Certified according to: <ul style="list-style-type: none"> • ICAO Annex 14, 7th edition
Conformity	CE, RoHs

Electrical characteristics

	24 V	230 V
Input voltage	24 V DC $\pm 10\%$	230 V AC $\pm 10\%$
Overvoltage protection	Class III according to IEC 61643-11	
Relay contact rating	Max. switching voltage	30 VDC
	Rated current	100 mA

Mesh Radio

Frequency	2.4 GHz ISM band
Transmission range	approx. 1.5 km

Physical characteristics

	With Mesh	Without MESH
Dimensions with mounting plate (HxWxD)	242 mm x 280 mm x 280 mm	124 mm x 280 mm x 280 mm
Weight	Approx. 4.4 kg	
IP rating	IP 68	
Material	Anodized aluminum, seawater resistant	
Mounting	Mounting plate with 4 drill holes	

Environmental Specification

Operating temperature	-40 °C to +55 °C (-40 °F to 131 °F)
Storage temperature	-55 °C to +70 °C (-67 °F to 158 °F)
Relative humidity	0 to 100 %
Operating altitude	0 to 2500 m (0 to 8202 ft) AMSL

Optional features

The Quantec Signals obstacle light "MIRI - ICAO" can be ordered with different optional features. See following table for available versions.

Optional Features	Infrared LEDs	Mesh	Heater	230 V AC	Cable
Name					
MIRI - ICAO, 230V	—	—	—	✓	—
MIRI - ICAO, IR, 230V	✓	—	—	✓	—
MIRI - ICAO, MESH, IR, 230V	✓	✓	—	✓	—
MIRI - ICAO	—	—	—	—	✓
MIRI - ICAO, IR	✓	—	—	—	✓
MIRI - ICAO, MESH, IR	✓	✓	—	—	✓
MIRI - ICAO, CCV, MESH, IR	✓	✓	✓	—	✓

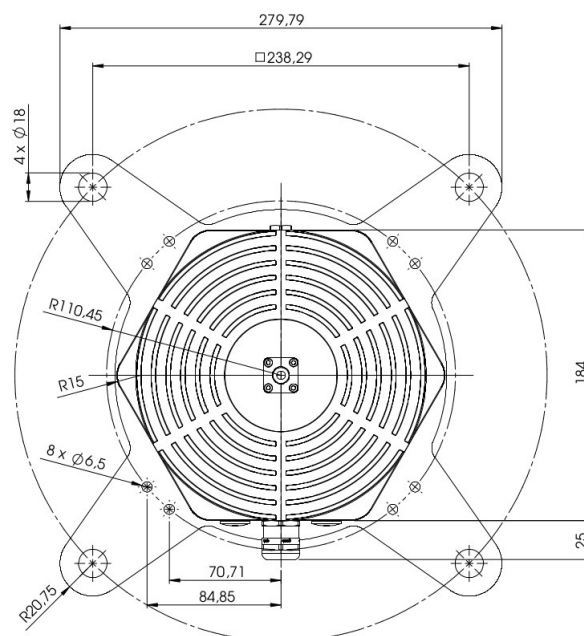
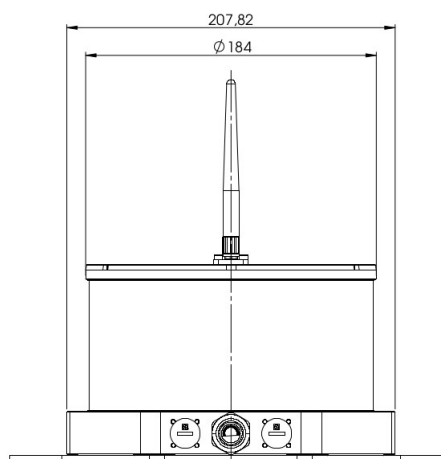
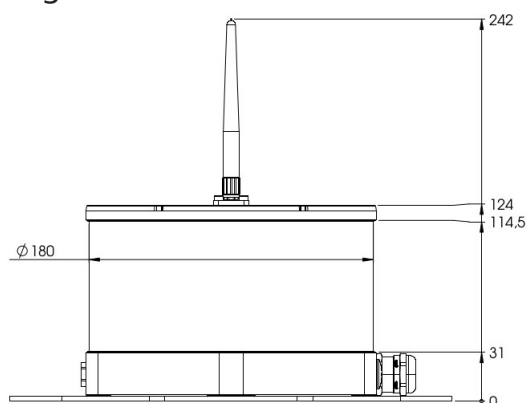
Performance characteristics

- Effective Intensity:
 - red: up to 2 000 cd
 - ir: up to 500 mW/sr
- Flash rate: up to 60 FPM
- Horizontal angle of radiation: 360°
- Vertical beam spread: >3°

Supported Light profiles

- ICAO Medium-Intensity Type B and C
- Infrared 500 mW/sr according to Trafi

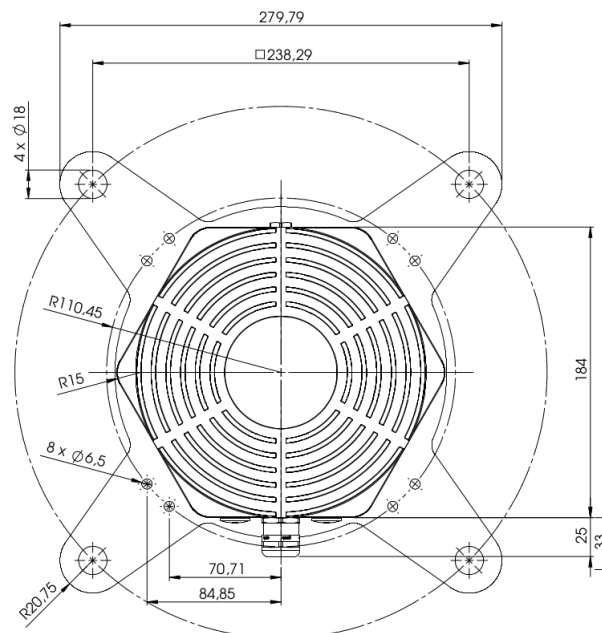
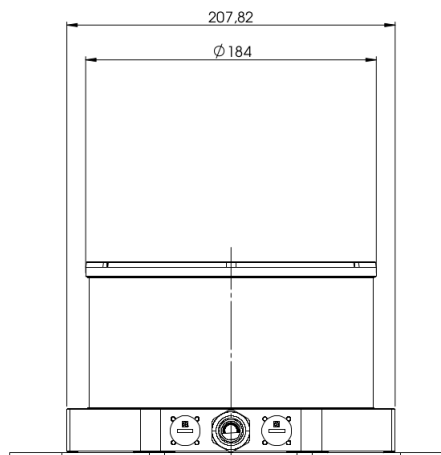
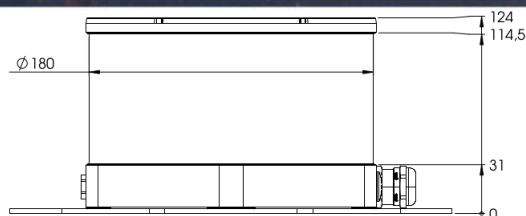
Drawings



Dimension and mounting outline with MESH

Terminal / Cable Pinout

Terminal	Wire	Signal	Function
1	BK1	24 V U+	Power supply
2	BK2	GND	
3	BK3	RS485 Port 1 Data-	PC terminal interface or slave communication port
4	BK4	RS485 Port 1 Data+	
5	BK5	SV-Info	<ul style="list-style-type: none"> • Test-Mode: GND (or open): Inactive, +24 V: Test mode • Data-mode: 9.6 kbit/s
6	BK6	K1/2 COM	Relay: Common
7	BK7	K1: /Day	Relay 1: Contact open when day mode active
8	BK8	K2: /Fail	Relay 2: Contact open if an error is detected
9	BK9	RS485 Port 2 Data-	Interface to the visibility sensor, ModBus module or master communication port
10	BK10	RS485 Port 2 Data+	
-	BK	SHLD	Shielding



Dimension and mounting outline without MESH

Power consumption and peak current

(typical)

Type	24 V DC		230 V AC	
	P _{avg} [W]	I _{peak} [A]	P _{avg} [W]	P _{peak} [W]
Light profile				
Idle	0.9	0.04	5.4	7,5
ICAO Medium B (20 FPM)	3.9	1.95	8.8	38.8
ICAO Medium B (30 FPM)	5.3	1.95	10.5	38.4
ICAO Medium B (40 FPM)	6.9	1.95	12.2	38.4
ICAO Medium B (60 FPM)	10.2	1.95	15.5	39.1
ICAO Medium C	25.6	1.95	31.9	32.9
ICAO Medium B + Trafi IR 500 mW/sr (20 FPM) ⁽¹⁾	4.4	2.15	9,7	44
ICAO Medium B + Trafi IR 500 mW/sr (30 FPM) ⁽¹⁾	6.1	2.15	11.8	43.6
ICAO Medium B + Trafi IR 500 mW/sr (40 FPM) ⁽¹⁾	7.8	2.15	13.6	43.8
ICAO Medium B + Trafi IR 500 mW/sr (60 FPM) ⁽¹⁾	11.5	2.15	17.6	44.1
ICAO Medium C + Trafi IR 500 mW/sr ⁽¹⁾	28.7	2.15	37.2	37.4
Heater ⁽²⁾	153	6.4	169	169

⁽¹⁾: Version with IR option only

⁽²⁾: CCV Version only

Note: Peak current measured at nominal power supply voltage.