



LightGuard AIS for AtoN

The LightGuard AIS (LGA) unit is a fully compliant AIS transponder suitable for all aids-to-navigation installations. Housed in a rugged triple protected housing suitable for the harsh marine environment, it can be deployed on exposed location on buoys and fixed structures. The unit comes with GPS antenna integrated in the housing, but an external GPS antenna can be connected if required.

The unit is supplied with a standard stainless steel mounting bracket making the installation to a buoy or a beacon structure easy.

- Rugged enclosure with IP66 and IP67 degree of protection
- Integrated GPS antenna in enclosure
- Lowest power consumption on the market in both Type 1 and Type 3 configuration
- Integrated interface to lantern (health and ON/OFF) and racon (health)
- Optional sensor board for met/hyd sensors
- Support messages #6, #7, #8, #12, #13, #14, #20, #21, #25
- Support up to 10 messages
- Wide voltage range from 10 to 32 VDC
- Approved by the Federal Maritime and Hydrographic Agency (BSH)



Main Technical Specification

Dimension

Height	284 mm / 11.1 in
Diameter	180 mm / 7 in
Weight	1.3 kg / 28.6 lb without cables and mounting bracket

Electrical specification

Supply voltage	10 to 32 VDC (absolute min and max)	
Average power consumption @ 12 VD	Type 1 (FATDMA channel access)	< 45 mW (0.09 Ah/day) with 1 msg/3 minutes
	Type 3 (RATDMA channel access)	< 400 mW (0.8 Ah/day) with 1 msg/3 minutes
	typical added consumption for optional sensor board	+ 50 mW (0.1 Ah/day) with one input active (consumption varies with I/O's and functionality)

Transmission power output levels 1 W, 2 W, 5 W and 12.5 W

Configuration interface USB

Interfaces to external equipment (standard) Integrated I/O interface (max 3.3 V) for

- Light ON/OFF status
- Light health status
- Racon health status

Interfaces to external equipment (with sensor board) 10 user configurable input/output signals
 2 isolated analogue inputs
 2 non-isolated analogue inputs
 1 current sense loop (lamp current)
 2 relay driver outputs
 A bi-directional NMEA0183 serial port
 An input only NMEA0183 serial port

Environmental

Degree of protection	IP66 and IP67
Operating temperature	-25° to +55°C / -13° to 131°F

Standards

Applicable equipment standards IEC62320-2
 ITU-R M.1371-4
 IEC61162-1
 IEC61162-2
 IEC61108-1
 IEC60945

Supported messages

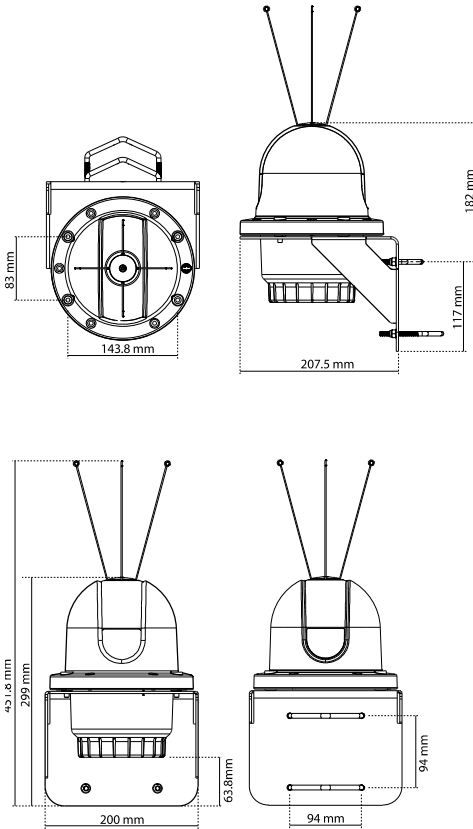
- #6 – Binary addressed message
- #7 – Binary acknowledge message
- #8 – Binary broadcast message
- #12 – Addressed safety related message
- #13 – Acknowledgement of received addressed safety related message
- #14 – Safety related broadcast message
- #20 – Data link management message
- #21 – Aids to Navigation report
- #25 – Single slot binary message

Approvals

BSH approved

Included in package

- AtoN transceiver
- Stainless steel mounting bracket and fixing
- Bird deterrent components
- Power and data cable 2 m / 6.5 ft
- Sensor interface cables included for AIS unit with sensor board
- Product manual and CD with programming software



Order Overview

LightGuard AIS for AtoN

Product code	Description
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LGA T1	LightGuard AIS transponder Type 1 (Transmit only)
LGA T1S	LightGuard AIS transponder Type 1 (Transmit only) with sensor board
LGA T3	LightGuard AIS transponder Type 3 (Transmit and receive)
LGA T3S	LightGuard AIS transponder Type 3 (Transmit and receive) with sensor board

Option code	Description
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970211	USB AIS ATON Configuration cable
-	Sensor cable