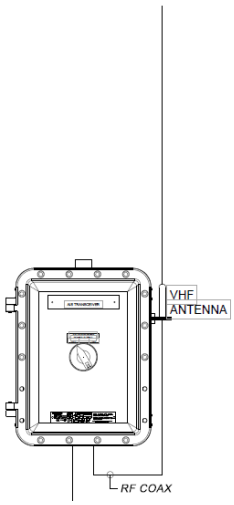
Pharos Marine Automatic Power

BROCHURE

AIS-EX

AIS AtoN Ex ZN1 and ZN2



- **316L or Marine Grade Aluminiuim Options**
- **Messages 21 and 14 as standard**
- **Other messages available upon request**
- **Designed to withstand harsh marine environments**
- **Plug and play design**

OVERVIEW

The Pharos Marine Automatic Power AIS Ex is a plug and play Automatic Identification system especially designed for the Marine Oil and Gas industry.

Applications range from CALM Buoys to fixed offshore platforms.

Certification:

- ATEX Certificate No.: INERIS 13ATEX0022X
- IECEx Certificate No.: IECEx INE 13.0070X
- Coding: Ex II 2 G Ex d IIB + H2 T6...3 Tamb –60℃ to +60℃ Gb
- Ingress Protection: IP-66

- ATEX Certificate No: ITS-I24ATEX39219X
- IECEx Certificate No: IECEx ITS 24.0004X
- Coding: II 2 G Ex db IIB T3 -20°C TO +55°C
- Ingress Protection: IP-66

AIS AtoN ZN1 ALU

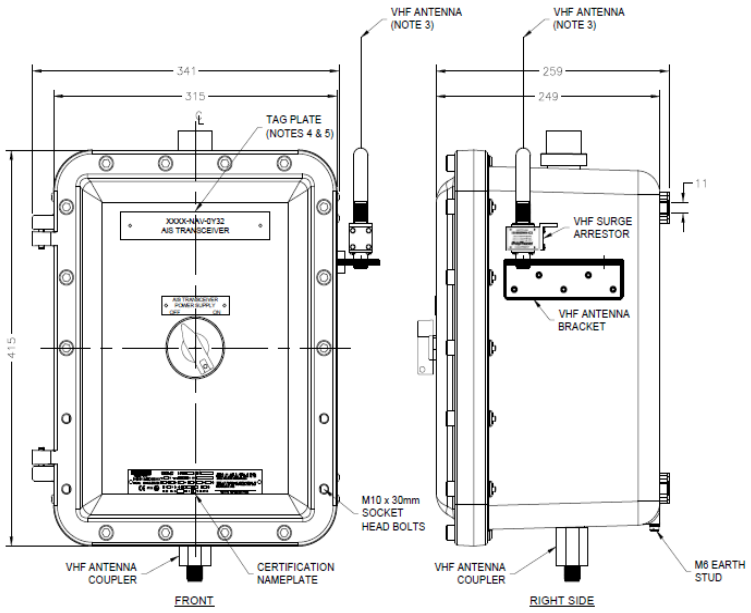
AIS AtoN ZN1 316L

Physical Characteristics

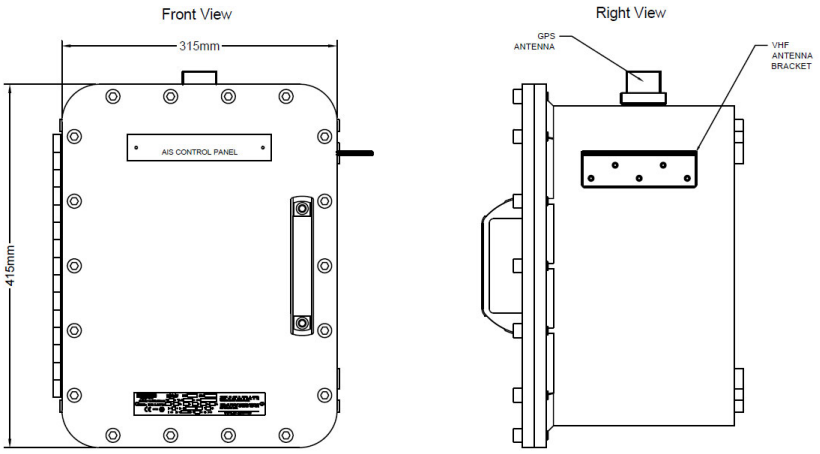
- Dimensions (LxWxH): 253x315X415mm
- Weight: 62kg (SS316) – 24.2kg (Marine Alu)
- Mounting: 4 x 11m slot holes

Performance Characteristics

- Ingress Protection: IP-66
- Operating Temperature: -20°C to +55°C



AIS AtoN ZN1 ALU



AIS AtoN ZN1 316L

**All values are subject to change without notice.*

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Pharos Marine Automatic Power

BROCHURE

AIS AtoN
Type 1 and Type 3

AIS AtoN
Type 1
Model **N321**

AIS AtoN
Type 3
Model **N323**

Sensor Box (option)
Model SB-305

NMEA 0183 USB

▸▸▸ *Specification P3*

The Widelink N321/N323 is an internationally type-approved AIS AtoN with the world's lowest power consumption. Building on the success of the Manda AIS AtoN system, the N321/N323 offers a full range of advanced features, including the broadcasting of virtual/synthetic AtoN targets, remote configuration, chaining and impact detection by built-in G sensor. N321/N323 can integrate lanterns and racons, and a variety of sensors directly. An optional sensor box as an accessory is also available to extend the connec-tivity.

The ruggedized enclosure is designed for reliable operation in even the most extreme environments from the equator to the Antarc-tic. Its small form factor ensures easy installation in even the tightest of compartments.

Features

- **Available as AIS AtoN Type 1 or Type 3**
  World's lowest power consumption in all operation modes
- **World's smallest form factor for easy installation**
  Best-in-Class receiving sensitivity (better than -112 dBm)
- **Best operational reliability and performance**
  IP68 waterproof with environmental robustness
  Versatile sensor interfaces with scalability through optional sensor box
  Built-in multi GNSS receiver

Versatile sensor interfaces

The N321/N323 incorporates 2*NMEA 0183 ports, 3*digital inputs and wake-up port to enable connectivity with lantern and sensors at minimum power consumption.

World's most power -saving AIS AtoN

N321 consumes <0.037 Ah/day under FATDMA mode, while N323 only needs <0.764 Ah/day under RATDMA mode

Technical Specifications

	AIS AtoN (Aids-to-Navigation)	
	N Series	
	Type 1 (N321)	Type 3 (N323)
STANDARDS		
	IEC 62320-2 Ed. 2.0: 2016 IEC 60945 Ed. 4.0: 2002 IEC 61108-1 Ed. 2.0: 2003 IEC 61162-1 Ed. 5.0: 2016 ITU-R M.1371-5: 2014	
Access Scheme	FATDMA only	Support FATDMA and RATDMA
VHF TRANSCEIVER		
Frequency Range	156.025 MHz ~ 162.025 MHz	
Tx Output Power	2 / 5 / 12.5 Watt (33 / 37 / 41 dBm +/- 1.5 dB), configurable	
AIS RECEIVER		
Receive Frequency	N.A.	156.025 MHz ~ 162.025 MHz
Rx Sensitivity	N.A.	better than -107 dBm @ 20% PER
GNSS RECEIVER		
Receiving Channels	72 channels	
Supported GNSS	GPS, GLONASS, BeiDou & Galileo	
Position Accuracy	< 2.5 m Autonomous, < 2.0 m SBAS	
CONNECTION INTERFACE		
Antenna Connector	GPS ant con: TNC (female); VHF ant con: SO-239 (female)	
Data & Control	18-pin connector: NMEA 0183 #1 (Tx/Rx); NMEA 0183 #2 (Rx only); Isolated digital input x 3; Wake up input; Wake up output	
Power	7 pins power cable	
ENVIRONMENTAL		
Operating Temperature	-25°C to +55°C	
Waterproof Rating	IP68	
POWER SUPPLY		
Power Input Requirement	12~24V DC (9.6 ~ 31.2V DC) / 3A at 12 V DC	
Power Consumption	< 0.037 Ah/day*	RATDMA <0.764 Ah/day*

Note: "*" At 12.5W, transmission scheduled every 3 minutes.

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