MARITEC TRUST

Safer Seas

Partner of SRT System Solutions Ltd

Product Data Sheet

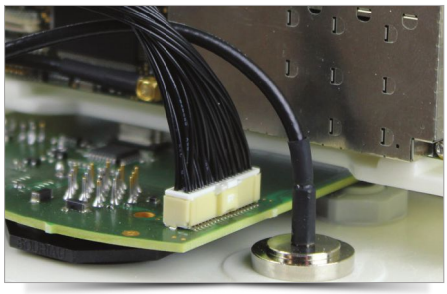
Product Code:
Type 3: 408-0001
Type 3: 418-0003 (optional sensors)
Type 1: 408-0009
Type 1: 418-0010 (optional sensors)

Carbon AIS Aid to Navigation (AtoN)

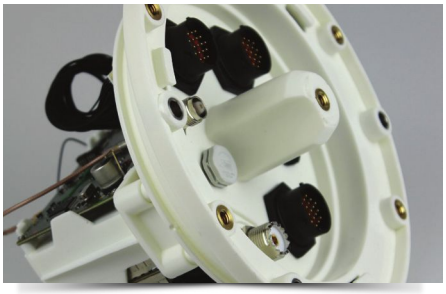
Product Type: Standard OEM

Carbon is an internationally certified Type 1 and Type 3 AIS AtoN with the world's lowest power consumption. Offering a full range of features, including transmission of virtual AtoN targets, simple integration with lanterns and external sensors, plus over the air configuration and chaining. The toughened enclosure is designed for continuous, long term use in the even the most extreme environments from the equator to the poles.

- Certified Type 1 and Type 3
- Ultra low power consumption in all operating modes
- Designed and manufactured for the toughest of environments
- Integrated GPS antenna with optional external input
- Multiple flexible sensor interfaces
- Proven operational reliability
- Full feature set



Ultra low power consumption minimises overall system installation costs



Multiple external interfaces facilitates easy integration with external devices

Designed for internal or external deployment in even the harshest marine environment

Branding

Our OEM products are supplied fully branded as per your specific requirements. This includes the product, all manuals and packaging such that upon arrival they are instantly ready for you to ship to your customers.

Customisation

SRT products offer unmatched capability to be customised for specific applications and markets. Additional features and functions can be specified and implemented and range from the simple to complex encryption and messaging features.

Certification

This product is fully tested and certified to the relevant international standards and product specifications. As part of the OEM customisation process into your brand, international certification can be transferred into your brand name within a matter of weeks.

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Physical Specification

Dimensions	284 x 188mm (H x D)
Weight	1.2Kg

Electrical Specification

Power supply	12 to 24VDC
Power consumption Type 1 AtoN (FATDMA)	Less than 0.09Ah/day (with 3 minute position reporting rate)
Power consumption Type 3 AtoN (RATDMA)	Less than 0.8 Ah/day (with 3 minute position reporting rate)

Interfaces - basic AtoN

USB	for configuration
IEC61162-1 ports	Two (NMEA0183) at 38400 baud
Logic level IO lines	5 configurable

Interfaces - via optional sensor interface

Five isolated digital inputs	✔
Two isolated analogue inputs – 0 to 36VDC	✔
Three non-isolated analogue inputs	✔
Two relay drive outputs	✔
Analogue current sense (up to 5A)	✔
Five non-isolated logic level input / output channels	✔
NMEA0183 (IEC61162-1/2) port	✔
Two RS232 ports – configurable baud rates	✔
SDI-12 interface	✔

Standards Compliance

AIS Standard	IEC62320-2:2008
Environmental	IEC60945:2002-08
GPS Performance Standard	IEC61108-1:2002-07
Safety	EN60950-1:2006 +A11:2009 +A1:2010 +A12:2011

VHF Transceiver

Transmitter	x 1
Receiver	x 2
Frequency	156.025 to 162.025MHz in 25KHz steps
Output power	1W, 2W, 5W or 12.5W
Channel bandwidth	25KHz
Channel step	25KHz
Modulation modes	25KHz GMSK (AIS, transmit and receive)
Bit rate	9600 b/s (GMSK)
Receiver sensitivity	< -110dBm @ 20% PER
Adjacent channel selectivity	70dB

GPS Receiver & Antenna

Channels	50
IEC 61108-1	Compliant
GPS antenna	Internal or external options
Glonass	Option available
Spurious response rejection	70dB

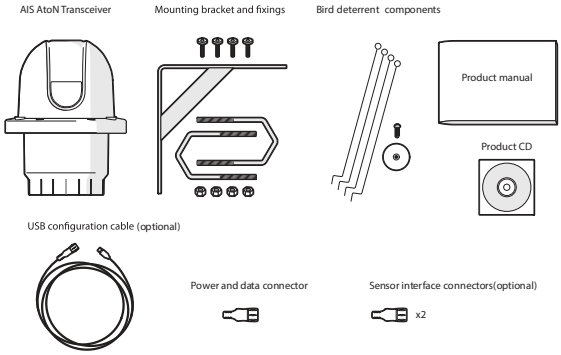
AtoN Functions

Type 1 and Type 3 options available	✔
Supports configuration by VDL command	✔
Chaining option available	✔
Customisable sensor interfacing	✔
Virtual AtoN support	✔

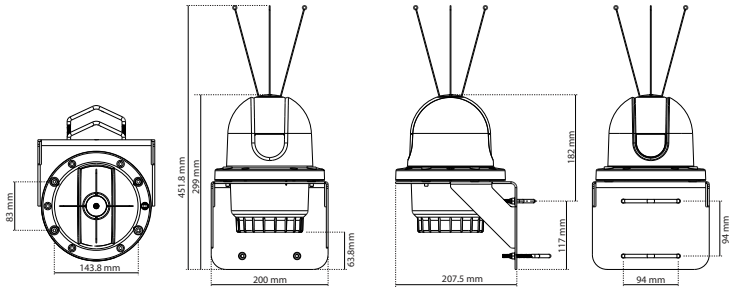
Environmental

Waterproof	IPx6 and IPx7 rated for water ingress
IEC 60945	'Exposed' category
Operating temperature	-25°C to +55°C

What's In The Box



Dimensions



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