

**AIS AtoN Transponder
Type 1 & 3**



The Kanaton AIS transponder is an aid to navigation AIS station, optimised for installation on floating or fixed Aids to navigation. It enables radar screens on boats, navigators and authorities, to obtain reliable data in any weather conditions regarding the identification of an AtoN, as well as AtoN status monitoring, real time warnings when buoys move off position, AtoN collision risk reduction, and the creation of virtual and synthetic aids to navigation.

- Very low power consumption, compatible with solar powered installation
- Compact, lightweight and watertight casing, easy to install and configure using a PC on a serial or USB port
- Complies with standards: IEC 62320-2, UN 60945, ITU-R M1371, IALA A-126
- Enables the transmission of meteorological and hydrological data
- Offshore structure marking and collision prevention
- Navigation study and analysis tool
- Economic optimisation tool for certain navigation routes



Main features

- KanAtoN type 1 (FATDMA): transmitter in the 160MHz band, configured according to the frequency dedicated locally to AtoN
- KanAtoN type 3 (RATDMA): transmitter-receiver, completely autonomous; without intervention, it can select the time slot in which it will transmit

KanAtoN AIS enables to send the following messages:

- **Message 21 - Identification of the Aid to Navigation:** MMSI identification, type, name, position, longitude, latitude, dimensions, off position indicator (off-position buoy), status, signalling light on off indicators
- **Message 8 - Meteorological and hydrological messages:** enables a network of sensors to be deployed to measure various parameters along the coast (suitable for the main sensors)
- **Message 6 - Monitoring of the AtoN:** status message (battery charge, lights, solar panel); possibility to program up to 4 virtual or synthetic AtoNs
- **Message 12 - Relaying of safety messages transmitted by a SART (type 3 only)**
- **Message 14 - Transmission of safety messages (type 3 only):** automatic transmission when a buoy moves off position or a light is faulty
- **Messages 7, 13 and 25: type 3 only**

Technical specifications

Operating temperature	-20 to -60° C
Polarity inversion protection	yes
Operating voltage	10 to 36V
Operating current	< 1mA in sleep / < 50mA in operation / < 2.5A in transmission
Consumption	(message 21 every 3min) type 1 : < 0.20Ah / day (message 21 every 3min) type 3 : < 0.70Ah / day
GPS receiver	GPS L1 C/A-code, SPS 12 channels
Acquisition time	Cold start: 36s / Hot start: 4s Sensitivity in acquisition (cold) -141dBm / (hot) -149dBm Sensitivity in tracking: -156dBm Supports WAAS/EGNOS
VHF antenna connector	N female
Power connector	Amphenol C16-1
AIS frequency	AIS 1: 161.975 MHz / AIS 2 162.025 MHz
Power	2W or 12.5W
Transmission mode	FATDMA (type 1 & 3) or RATDMA (type 3 only)
Inputs / outputs	4 inputs insulated by optocouplers (to read data relating to light faults, lights on and Racon fault information)
Characteristics	Insulation voltage: 5300Vrms Protection voltage: 16V 600W for 1ms Operating voltage: 3,3V to 30V
Communication ports	TX and RX in RS232 for configuration and reception of technical data RX in RS422 for reception of meteorological data
Power on indicator	By tri-colour LED (green/yellow/red)
Dimensions	Diameter: 165mm / Height: 135mm
Weight	1.1kg
Casing material	ASA plastic
Casing colour	White
Watertightness	IP 67
Accessories	1 VHF antenna 2x 7 strand shielded cables fitted with Amphenol C16-1 connector, length 5 m 1x RG213 coaxial cable fitted with an N male connector