V10 Informer™

V10 Informer™ V-Track™

V-Track™ V10 Informer™ is an AIS information provider and remote monitoring system for use on marine aids to navigation (AtoN) and other structures. The V10 Informer™ is available in two options: “Type 1” is a transmit only device, and “Type 3” is a transmit and receive device that can also be used as an AIS repeater. For most applications a transmit only device provides the ideal AIS AtoN solution. The V10 Informer™ is a compact unit housed in a rugged environmental enclosure for use on any AtoN. With a power consumption of less than 0.5 Ah/day, the V10 Informer™ is suitable for all solar installations, including buoys anywhere in the world. Tideland Signal has adopted the emerging IEC standards defining the functions and message structure contained within the AIS. AtoN message. The V10 Informer™ is designed to comply with IEC and ITU requirements and also IALA recommendations. It isBSH approved. In addition, both the V10 Informer™ "Type 1" and "Type 3" have optional remote monitoring capabilities. It is capable of remote monitoring almost any manufacturer’s AtoN. When monitoring a Tideland Signal lantern, the standard system provides lantern status, battery voltage (loaded and unloaded) and an extra available input. The V10 Informer™ broadcasts AtoN message 21 and also allows broadcasting of weather and sea data on message 6 or 8 as a Binary Message or as a Text Message on message 12 or 14. Remote monitoring information is broadcast on message 6.

CHARACTERISTICS

- PROGRAMMING SOFTWARE -The V10 Informer™ is supplied with a comprehensive software application that enables you to program the unit via an RS232 interface.
- REPEATER OPTION – The V10 Informer™ “Type 3” has the capability of repeating the standard supported AIS AtoN messages for predetermined MMSI numbers. In its “Type 3” option, the V10 informer™ can also be controlled over the VHF data link (VDL). This is all possible through the configuration software.
- VIRTUAL AND SYNTHETIC AtoN – There are situations that require the authorities in charge to create either virtual or synthetic aids to navigation using their existing AIS infrastructure. For these cases, the V10 Informer™ is ideal as it supports both virtual and synthetic AtoN.

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Technical Details	
IP Rating	IPx6 and IPx7
Designation	Automatic Identification System (AIS) for AtoN
Power Supply	12VDC nominal
Typer 1 Power Consumption	FATDMA < 0.288Ah/day*
Type 3 Power Consumption	FATDMA < 0.432Ah/day*
	RATMDA < 1.656Ah/day*
	*At 12.5W, reporting interval 3 minutes
Temperature Range	-25° C to +55° C
Message 21 Content	MMSIINNumber, Name of AtoN, Position, Position Accuracy, RAIM Indicator Type of Position Fixing Device,
	Time Stamp, Dimension of AtoN, Type of AtoN, Virtual AtoN Target Flag, 8 bits reserved for regional application.
Standard Compliance	IEC 60945 Ed. 4 (2002-05), IEC 61162-1 Ed. 3 (2007-04), IEC 62320-2 Ed. 1 (2008-03), IEC 61108-1 Ed. 2 (2003-07),
	IEC 61108-2 Ed. 1 (1998-06), ITU-R M. 1371-4 (2010-04), IALA A-126 Ed. 1.4 (2008-06)
Transmitter Performance	
TX Frequency Range	156.025MHz to 162.025MHz in 25kHz steps
Frequency Accuracy	±500Hz
Channel Space	25kHz
Channel Protection	1 sec max on air
Modulation	GMSK / FM
Data Rate	9,600 bps
TX Power Control	2/5/12.5W (programmable)
Carrier Power Error	± .5 dB (normal) 5
Nominal Impedance	50
Receiver Performance (Type 3 Only)	
Number of Receivers	2
RX Frequency Range	156.035MHz
Sensitivity	PER 20% at -107dBm
Data Rate	9,600 bps
PER	2% at -107dBm
CO-Channel Rejection	10dB at 1kHz offset
Adjacent Channel Rejection	70dB at 25kHz
Nominal Impedance	50
GPS Receiver	
Receiving Channels	50 channels
Tracking & Navigation Sensitivity	≥ -159dBm
Reacquisition Sensitivity	≥ -159dBm
Horizontal Position	< 2.5 m Autonomous
	< 2.0 m SBAS
Receiver Type	SBAS: WAS, GAGAN, EGNOS.MSAS
Environmental Product	
Category Operating	IEC 60945 "Protected"
Temperature Storage	-20° C – +550° C
Temperature Humidity	-20° – +700° C
	95% relative humidity at 400° C
Input/Output	1-One RS-232 port for configuration, 2-One RS232 port (optional), 3-One isolated control output-N.C. relay for
	alarm indication (default) or other control usages, 4-One isolated status input channel with 5 mA constant
	current sink for external device status input (e.g. read light fault, light on/off, etc). 5-Four ADC channels for
	external sensors, 6-1 pps from internal GPS.
Connector	1-VHF connector (M type)
	2-GPS connector (TNC type)
Physical	
Width	140mm
Height	155mm
Depth	60mm
Weight	≤ 1.5kg
Case Material	Aluminum Alloy

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