

## Technical data sheet HPL-2

AIS SART (MOB) with homing on 121.5 MHz

State of the Art personal locator beacon for integration in SeaAir. When mounted in antenna module in the suit, the unit activates when in contact with water. Once activated the HPL-2 will transmit an alert to all AIS receivers and AIS enabled plotters in the vicinity. The integrated GPS ensures precise location is sent to your vessel and any others that may be to assistance. The GPS transmitter utilize the Russian Glonass network of satellites in addition the US GPS-network. This ensures more accurate positioning.

As an extra safety the unit transmits on VHF 121.5 MHz for homing by SAR helicopters etc.



Item	Data	Comment
<b>General</b>		
Battery Type	Non replaceable, 4x SAFT LS-17.500/3,6V/3.600mAh	
Operating Time	>15.000 hours in deep sleep mode (placed in holder), >6 hours 121.5 MHz, >30hours AIS at -20°C, longer in warmer conditions	Maximum 6200 activations in antenna-module
Battery Service Life at +20°C	7 years	
Operating Temperature	-20° to +55°C (-4° to +131°F)	
Stowage Temperature	-30° to +70°C (-22° to +158°F)	
Dimensions	23 x 4.5 x 3cm excl. antenna-module	
Weight	206g	
Case	According to IEC 60945.	Drop on hard surface, sinusoidal vibration, oil resistance, solar radiation, damp heat, dry heat, thermal shock and depth rated to 10 meters for 10 minutes.
Case material	PC/ABS C110FR	
Durability	N/A	
Environmental Resistance	IPX8	
Mounting Options	In HPL antenna module mounted on personal equipment	
Compass Safe Distance	0.5m	
Accelerometer	N/A	



Power Saving Mode	<b>Deep sleep mode:</b> Senses for water every 10 second. <b>Low power mode:</b> Suspends 121.5 MHz transmission 6.5 hours after alarm activation, continues with AIS transmission until battery is empty >30 hours	
<b>GPS Receiver</b>		<b>Antenna directivity</b>
Channels	99 acquisition/33 tracking	
TTFF (Time To First Fix)	23 seconds ( all satellites at -130dBm)	
Antenna	Embedded chip antenna	
GPS Sensitivity	Cold start acquisition at -148 dBm; Tracking and navigation to -165 dBm	
Horizontal Position Accuracy	Position 2.5 m CEP, SBAS: 2.0 m CEP	
GPS Antenna Directivity	> -3dBi in ZY plane	
Bands	GPS 1.575 MHz and Glonass 1.598 MHz -1.606 MHz	
<b>Transmission Power Output</b>		
AIS	> 0.5 Watt EIRP (According to IEC 601097-14) - requires antenna module	
121.5 MHz	> 25 mW EIRP (According to ETSI EN 300 152 V1.2.1) - requires antenna module	
<b>VHF Transmitter Package</b>		
Carrier Frequency	121.5 MHz, 161.975 MHz and 162.025 MHz	
Carrier Frequency Error	<±0.2 kHz @ 162 MHz and <±0.15 kHz @121.5 MHz	
Maximum Power Output	N/A	
<b>Emergency Signalling</b>		
Alerting Radius	Up to 5NM surface to surface, up to 100NM surface to air (depending on weather conditions, reception equipment etc.)	Theoretical distances according to tests performed in IEC 61097-14. No data for 121.5 MHz surface to surface.
<b>AIS</b>		
Timing	One burst of 8 transmissions every minute	
Initial Alert	Within 60 seconds after activation. Activation takes >= 60 seconds	Detection of water takes place over a period of about 5 minutes. This is measured approx. every second after water is detected first time. 5 minutes equals 300 seconds or 296

		measurements.
Second Alert (GPS Positioning Data)	Once GPS lock is acquired, within 15 minutes	
Subsequent Alerts	Bursts once pr minute according to IEC 61097-14	
<b>121.5 MHz</b>		
Activation	Immediately after activation. Activation takes >= 60 seconds	Detection of water takes place over a period of about 5 minutes. This is measured approx. every second after water is detected first time. 5 minutes equals 300 seconds or 296 measurements.
<b>Compliances</b>		
AIS-SART	IEC 61097-14:2010	
121.5 MHz	ETSI EN 300 152 V1.2.1	
Safety	EN 60950-1:2006+A11:2009+A1:2010+A12:2011 EN 60945:2002	
Other	CE approved by Nemko	
<b>Compatibility</b>		
Integration	SeaAir1, SeaAir Barents	In integrated antenna module
Accepted Integration	EASA ETSO 2C504	



Integration in SeaAir1 Helicopter Passenger Suit