



Pharus Tech

Emergency Beacons

EPIRB
AIS-SART
ELT-AP/AF
ELT-AD

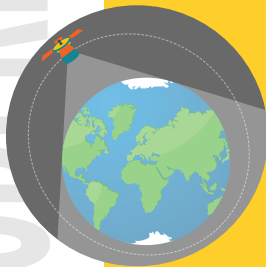


For a second chance

World's First Automatic Float Free EPIRB without HRU



Meet the world's first and only EPIRB with float-free activation, achieved without an external Hydrostatic Release Unit (HRU). Eliminate the need for an HRU, which requires frequent replacement and renewal. Fulfill your EPIRB supply needs quickly, without requiring additional accessories.



The technology we have developed enables distress calls worldwide, including in polar regions. Our Emergency Beacon device, designed in compliance with the latest maritime and environmental standards, promises to operate properly and save human lives, even in an electronic warfare environment.

Thanks to our patented solution, you will finally get rid of the external Hydrostatic Release Unit, which is frequently replaced during port inspections and repairs. You will be able to prevent potential delays and financial losses. The Pharus EPIRB w/AIS PH7001 features an integrated subsystem—based on an entirely electronic solution—that enables float-free activation. Furthermore, our product also possesses the following technical advantages:



- EPIRB programming via a mobile application using NFC (Completely free and adapter-less)
- A design that prevents unauthorized battery replacement
- A smart system capable of detecting Jamming and GPS Spoofing

RELIABLE, MODERN AND SIMPLE

Will your ship pass the mandatory in-port Radio Survey inspection on time?

To ensure you can successfully pass the initial and annual renewal surveys mandated by the International Maritime Organization (IMO) for maritime vessels without delay, we stand by you with our EPIRB product, which is designed according to the most current standard (Type Approval MED/5.6 Module B + D).

With our EPIRB, you will, for the first time, no longer need the Hydrostatic Release Unit (HRU)—an additional accessory that frequently causes problems during inspections. Our EPIRB achieves float-free activation through its patented subsystem, which is based on an entirely electronic solution.



Smart EPIRB technology capable of detecting Jamming and GPS Spoofing

In maritime areas with heavy military operations, Jamming and GPS Spoofing are among the most common warfare techniques today. An EPIRB providing false location data hinders search and rescue efforts. Our EPIRB, with its CVW/smart GNSS Receiver system feature, is capable of detecting Jamming and Spoofing attacks. Our EPIRB, which strives to provide resiliently accurate location data, guarantees that it will not provide false location data in the distress signal it transmits.

Would you like to program your EPIRB for free, anytime and anywhere, right from your mobile phone?

Unlike other products on the market, you don't need to waste time and money on EPIRB programming—a service that can often only be done by the manufacturer or requires a costly adapter. Our EPIRB can be programmed easily and for free using our licensed, NFC-based mobile application, which we have designed for Android and iOS smartphones.

Smart EPIRB that prevents unauthorized battery replacement

Battery replacements not performed by authorized dealers or manufacturer-approved services can cause EPIRBs to fail to operate as expected. Our EPIRB, with its smart design solution integrated with the mobile application, can detect unauthorized battery replacement and lock itself. Our EPIRB—which strives to prevent even the slightest human error and is capable of operating reliably for many years—is at your service.

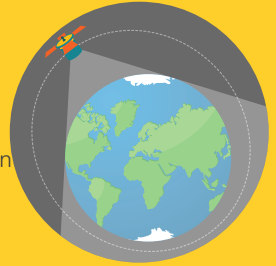
Frequency Channels	406.076MHz - Satellite Distress Signal 121.5 MHz - Homing Signal 161.975 MHz and 162.025 MHz - AIS
Transmission Power	5 W (38 dBm EIRP) - Distress Signal 50 mW (17 dBm EIRP) - Homing Signal 1 W (30 dBm EIRP) - AIS
Transmission Duration	48 hours
Gps Receiver?	Yes, multi-constellation receiver with anti-jamming and GPS spoofing detection features
AIS Feature?	Yes
Battery	LiFeS ₄ battery configuration
Battery Lifecycle	10 - years
Temperature	Operation: -20 to 55 °C Storage: -55 to 85 °C Class-II Emergency Beacon
Weight	800g
Dimensions	17.7x10.8x10.8 cm
Float Free?	Yes, Category - I EPIRB with hydrostatic release coverage

RELIABLE, DURABLE AND SIMPLE

GPS Spoofing-Resistant ELT: Reliable in the Toughest Environments



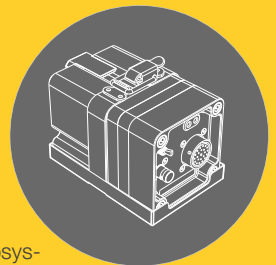
Meet our Emergency Locator Transmitter (ELT) equipment, capable of operating on an aircraft, helicopter, or UAV—in every environment, everywhere in the world without exception—and enabling a distress call via the Cospas-Sarsat satellite communication link: Pharus ELT *Didyma*.



Our ELT equipment can be activated automatically by providing crash detection both in the direction of flight and in non-flight directions (lateral, vertical). It makes a distress call possible via both satellite communication and terrestrial broadcast, even in the most challenging geographies and the most destructive environmental scenarios.

You will not experience the false alarm problem with our ELT product, which we have developed with innovative technology. With our 'Smart Crash/Impact Analyzer' subsystem, activated by the optional power supply from the aircraft, you will ensure safe flights with our ELT that does not provide false alarms even during the hardest landings and turbulence. The Pharus ELT Didyma also has the following technical advantages:

- ARINC429, RS232, and Discrete communication interfaces
- Ability to be programmed over the ARINC bus without using a special adapter
- Smart subsystem that prevents sending false locations by detecting Jamming / GPS Spoofing



Will your aircraft pass the mandatory Maintenance Checks on time?

To ensure you can successfully pass the A, B, C and D maintenance checks mandated by the International Maritime Organization (ICAO) for aircrafts without delay, we stand by you with our ELT product, which is designed according to the most current standard (ETSO C91a and C126a).

With our ELT, you will be able to perform battery replacements in the field without needing to send it back to the manufacturer, resolving a process that takes days with equivalent models in a matter of minutes. Additionally, you can program the ELT directly on the aircraft via the ARINC communication protocol without having to remove the ELT or use a special adapter, and you can view the ELT's Self Test logs.

Smart ELT technology capable of detecting Jamming and GPS Spoofing

In airspaces with heavy military operations, Jamming and GPS Spoofing are among the most common warfare techniques today. An ELT providing false location data hinders search and rescue efforts. Our ELT, with its smart GNSS Receiver system feature, is capable of detecting Jamming and Spoofing attacks. Our ELT, which strives to provide resiliently accurate location data, guarantees that it will not provide false location data in the distress signal it transmits.



Would you like our smart ELT that doesn't false-activate during hard landings or turbulence?

Some existing ELTs on the market can activate directly based on electromechanical G-Switches, which can cause time-consuming and confusing problems for aviation institutions and S&R organizations. With our Smart Crash/Impact Analyzer subsystem, which is automatically engaged by the optional external power supply from the aircraft, we offer an ELT equipment that prevents false activation, even during the most deceptive hard landings and turbulence.

Would you like to program your ELT directly over the ARINC bus, without removing it or needing a special adapter?

Unlike equivalent products on the market, the Pharus ELT Didyma product can be programmed with the Country Code and 24-bit Aircraft Tail ID information directly via the digital communication interface. Furthermore, all of the ELT's logs and default data can be accessed. With our product, it is possible to handle the disassembly, programming, and special adapter usage processes—which are time-consuming and require great care for technicians—in a matter of minutes.

Frequency Channels	406.076MHz - Satellite Distress Signal 121.5 MHz - Homing Signal 243.0 MHz - Optional Homing Signal
Transmission Power	5 W (36 dBm EIRP) - Distress Signal 50 mW (17 dBm EIRP) - Homing Signal
Transmission Duration	48 hours
Gps Receiver?	Yes, multi-constellation receiver with anti-jamming and GPS spoofing detection features
Battery	LMnO ₂ battery configuration
Battery Lifecycle	5 - years
Temperature	Operation: -40 to 55 °C Storage: -55 to 85 °C Class-I Emergency Beacon
Weight	1100g
Dimensions	130x80x80 mm
Automatic Activation	Flight: >2.3G / 6G acceleration Non-Flight: >12.5G acceleration
Altitude	<55.000 ft
Shock	500g for <8 ms
Vibration	10g for 5 - 2000 Hz
Crashworthiness	100g for <25 ms
Crush	450 kg

Automatic Deployable ELT: Operational In The Most Severe Crash Scenarios

RELIABLE, SOLID AND DEPLOYABLE

Are you looking for an ELT that you can use even in the most challenging mission areas?

We are by your side with our crash-resistant Pharos Emergency Locator Transmitter - Automatic Deployable (ELT-AD) equipment, which is mounted externally to the aircraft and is automatically deployable in water. The Pharos ELT-AD Demre is designed according to the most current standards (ETSO C91a and C126a) to withstand even the most severe crash scenarios.

With our ELT-AD, you can meet the distress call requirements for your aircraft, especially those used in firefighting, search and rescue, and operations in mountainous or glacial terrain. You can control our ELT-AD product via the ARINC communication protocol and easily program it while it is mounted on the aircraft.



Would you like our smart ELT-AD that doesn't false-activate during hard landings or turbulence?

Some existing ELT-ADs on the market can activate directly based on electromechanical G-Switches, which can cause time-consuming and confusing problems for aviation institutions and S&R organizations. With our Smart Crash/Impact Analyzer subsystem, which is automatically engaged by the optional external power supply from the aircraft, we offer an ELT-AD equipment that prevents false activation, even during the most deceptive hard landings and turbulence.

Frequency Channels	406.076MHz - Satellite Distress Signal 121.5 MHz - Homing Signal 243.0 MHz - Optional Homing Signal
Transmission Power	5 W (36 dBm EIRP) - Distress Signal 50 mW (17 dBm EIRP) - Homing Signal
Transmission Duration	48 hours
Gps Receiver?	Yes, multi-constellation receiver with anti-jamming and GPS spoofing detection features
Battery	LMnO ₂ battery configuration
Battery Lifecycle	5 - years
Temperature	Operation: -40 to 55 °C Storage: -55 to 65 °C Class-I Emergency Beacon
Weight	2000g
Dimensions	300x80 mm
Automatic Activation	Flight: >2.3G / 6G acceleration Non-Flight: >12.5G acceleration Water Immersion: Auto activation
Altitude	<55,000 ft
Shock	500g for <8 ms
Vibration	10g for 5 - 2000 Hz
Crashworthiness	100g for <25 ms
Crush	450 kg

Search and Rescue Transmitter with Automatic Identification System : Pharos AIS-SART

Will your ship pass the mandatory in-port Radio Survey inspection on time?

To ensure you can successfully pass the initial and annual renewal surveys mandated by the International Maritime Organization (IMO) for maritime vessels without delay, we stand by you with our AIS-SART product, which is designed according to the most current standard (Type Approval MED/4.55 Module B + D).

With our AIS-SART product, it is possible for your personnel and passengers to send a distress call, even in the most devastating maritime accident cases. Nearby maritime vessels, aircraft, and port radio stations are alerted with a distress call on the AIS channel and are informed about the location of the people awaiting rescue.

Would you like to program your AIS-SART for free, anytime and anywhere, right from your mobile phone?

Unlike other products on the market, you don't need to waste time and money on AIS-SART programming—a service that can often only be done by the manufacturer or requires a costly adapter. Our AIS-SART can be programmed easily and for free using our licensed, NFC-based mobile application, which we have designed for Android and iOS smartphones.

Smart AIS-SART that prevents unauthorized battery replacement

Battery replacements not performed by authorized dealers or manufacturer-approved services can cause AIS-SARTs to fail to operate as expected. Our AIS-SART, with its smart design solution integrated with the mobile application, can detect unauthorized battery replacement and lock itself. Our AIS-SART—which strives to prevent even the slightest human error with its smart design and is capable of operating reliably for many years— is at your service.

Smart AIS-SART technology capable of detecting Jamming and GPS Spoofing

In maritime areas with heavy military operations, Jamming and GPS Spoofing are among the most common warfare techniques today. An AIS-SART providing false location data hinders search and rescue efforts. Our AIS-SART, with its smart GNSS Receiver system feature, is capable of detecting Jamming and Spoofing attacks. Our AIS-SART, which strives to provide resiliently accurate location data, guarantees that it will not provide false location data in the distress signal it transmits.



Frequency Channels	161.975 MHz and 162.025 MHz -AIS
Transmission Power	1 W (30 dBm EIRP) - AIS
Transmission Duration	96 hours
Gps Receiver?	Yes, multi-constellation receiver with anti-jamming and GPS spoofing detection features
AIS Feature?	Yes
Battery	LiFeS2 battery configuration
Battery Lifecycle	10 - years
Temperature	Operation: -20 to 55 °C Storage: -35 to 85 °C
Weight	500g
Dimensions	22x8.4 cm

Who is Pharus Tech?

Pharus Tech is a technology company that designs and manufactures Emergency Beacon equipments with an experienced team and innovative solutions.

Founded in Ankara, Türkiye, under the name Pharus Tech Engineering and Technology Inc., the company specializes in life-saving, high-tech solutions. The company has a multidisciplinary and experienced Research & Development team for hardware, software, and RF design, focusing on Emergency Locator Transmitters (ELTs) for aircraft, as well as Emergency Position Indicating Radio Beacons (EPIRBs) and Search and Rescue Transmitters with Automatic Identification Systems (AIS-SARTs) for maritime vessels.

Pharus Tech's products are built with cutting-edge innovation and full compliance with international aviation and maritime standards, ensuring reliable and robust communication in the most challenging environments.

The word Pharus means "lighthouse", "torch", or "guide" in Latin — symbolizing the company's mission to deliver life-saving solutions for people in distress, anywhere in the world, under any circumstances. Both the company's name and logo were chosen to reflect this honorable purpose.

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