

# easyIPIRB





# Iridium® Position Indicating Radio Beacon

World wide coverage by Iridium® SAT system with AIS & DSC localized alert functionality

## Iridium® Position Indicating Radio Beacon (IPIRB)

The new Weatherdock easyIPIRB is the world first emergency beacon combining Iridium® distress call functionality (based on the state-of-the-art Iridium® satellite network) with the local alerting by AIS (Automatic Identification System) and the VHF radio based DSC distress call alert.

### **Function**

### **Iridium®**

The easyIPIRB uses the Iridium® satellite network with the 100% worldwide coverage to alert its location globally. In case of activation, an Iridium® SBD (short burst data) is transmitted into the Iridium® satellite system immediately containing current GPS position (accurate to within 5-15 meters) as well as Unit ID and safety message. The distress call is forwarded in real-time to ground station and from here to the MRCC (→Iridium® GMDSS system).

### Iridium® handshake

By means of bi-directional satellite communication every time an Iridium® SBD is transmitted, the beacon receives a handshake from the satellite that the message is transmitted well and forwarded immediately.

### AIS

After the unit is activated and the GPS fix is established the easyIPIRB starts transmitting an AIS safety related message containing the text "SART active". This AIS transmission can be received by every AIS system within the range of up to 15nm and the position is displayed on every ECDIS with a red circle and a red cross inside it. The current position of the device is updated every minute and transmitted into the AIS system. First responders of the GMDSS rescue chain will get an updated pinpoint and can easily navigate directly to the AIS target and the IPIRB location.

### **DSC**

Within seconds after the easyIPIRB is activated, a DSC distress call is sent out to the motherships DSC radio. The MMSI number of the mothership and up to 8 different vessel MMSI can be programmed into the unit by an app via Bluetooth. For the first 10 minutes, the DSC distress call stays local in "closed loop" and is transmitted only to the programmed MMSI numbers. If there is no acknowledgement within 10 Minutes, the device switches automatically into DSC "open loop" transmitting an "all ships call" to all vessels within the receiving. This "all ships call" can be forwarded to reach a MRCC and to start the official GMDSS rescue chain.

### Mobile connectivity

By using a free app for Apple & Android the device can be programmed and managed from your smartphone via Bluetooth.

### **Highlights**

- ☑ Iridium® satellite network functionality
- ☑ No latency for satellite availability
- ☑ AIS local alerting
- ☑ DSC distress call
- ☑ Iridium® handshake as transmission confirmation
- ☑ AIS position update every minute by GNSS
- ☑ Automatic switch from DSC closed loop to DSC open loop
- ☑ SOLAS certification

### **Technical Data**

### Functional:

- ☑ Iridium® network
  - ☑ Iridium 9603 SBD Modem with global coverage and latency < 1 Minute
- ☑ Iridium frequency: 1616 1626 MHz
- ☑ GPS receiver:
  - up to 3 GNSS constellations (config), -167dBm sensitivity, internal antenna, typical time to first fix (TFF) < 30 seconds
- ☑ Data transmitted:
  - ☑ Time, Position, Status
  - ☑ "I am Safe"

### **Controls & Indicators**

- ☑ Push buttons: ALERT / I am SAFE / TEST
- ☑ LEDs: GPS / Test / Iridium® / POS

### Messages sent

- ☑ Iridium® distress signal
- ☑ AIS SART message 8
- ☑ DSC distress call Class M





