



Accelerated  
Location Detection  
with GPS & Galileo  
receivers

# SmartFind G8 AIS EPIRB

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MEOSAR Compatible® for enhanced detection and location performance, the G8 AIS EPIRB is the world's first EPIRB to combine the global 406 MHz professional search and rescue alert, with the localised locating and tracking power of AIS.

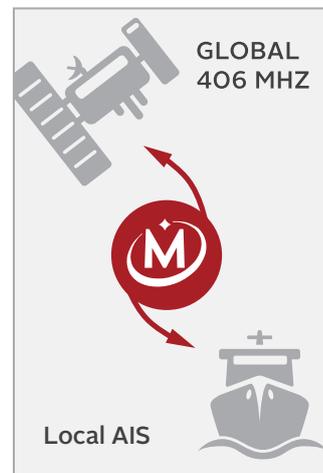
## New Legal Requirement for AIS:

The SmartFind G8 AIS EPIRB is the only beacon on the market that meets the new global requirement to include AIS signals in EPIRBs deployed in SOLAS vessels from 2022.

## SmartFind G8 EPIRB Range

The world's most powerful EPIRBs, driving accelerated rescue times via:

- Faster alert detection on the 406 MHz frequency through our MEOSAR compatibility
- The world's first QUADROTECH® EPIRB, with four search and rescue frequencies, the SmartFind G8 AIS supports the Alert, Locate, Tracking and Recovery elements of search and rescue
- Greater location detection speed and accuracy, as the multi-constellation GNSS receivers work with a wider range of satellites including Galileo and GPS.
- World's first convergence of 406 and AIS, combining the global alerting of 406 MHz with the localised locating and tracking power of AIS



McMurdo SmartFind EPIRBs include innovation as standard; with ruggedized base, easy service battery, MEOSAR compatibility, compliance with the United States emergency hands free transport and the new GNSS requirement which raises the minimum requirements for new EPIRBs being sold in the US. The additional false activation protection and multiple self-tests also offer total user confidence. Coupled with an unparalleled marine heritage, commitment to quality and a history of innovation, customers know they can trust McMurdo when their lives are at risk.

The G8 AIS is the first EPIRB to have standard 406MHz, 121MHz & GNSS capabilities AND include AIS for localised rescue. This combination is a result of new technology but also new attitudes to AIS as a search and rescue tool, plus the realisation that accelerated alert detection and location accuracy will save even more lives. This technology partnership will also help reduce demands on the Search & Rescue authorities as it should help vessel owners detect and resolve accidental activations through visibility of AIS signals.

## SmartFind G8 Auto-Housing

A fully protective, spring loaded enclosure, the auto-housing automatically deploys and activates the EPIRB when it is submerged between 1 - 4m. The SmartFind G8 auto-housing incorporates fixing points which ensure previous McMurdo auto-housing units can be retrofitted with minimum impact, when upgrading your vessels EPIRB.

Each of the models (G8 and G8 AIS) detailed on the comparison table opposite are available as either a category 1 or category 2 EPIRBs:

### Category 1 EPIRB models

Supplied inside an auto-housing and automatically deployed and activated when in contact with water (although they can also be manually activated).

### Category 2 EPIRB models

Supplied with a unique SmartTransfer bracket to prevent accidental activation, once manually removed from the bracket the EPIRB is activated manually or via water contact.



# SmartFind G8 EPIRB Range Features Comparison

Feature	Description	SmartFind G8	SmartFind G8 AIS
Optimised for MEOSAR	Enhanced detection capability for accelerated rescue	✓	✓
VHF homer	121.5MHz swept tone	✓	✓
406 frequency	International rescue frequency	✓	✓
GNSS receiver	72 channels multi-constellation	✓	✓
AIS capability	AIS for localized rescue		✓
SmartTransfer	Manual bracket allowing transport without activating water switch	✓	✓
Auto-housing option	Automatic deployment when submerged 1 - 4m	✓	✓
Activation method	Manual or water activation	✓	✓
SmartCarry	Concealed hands-free easy carry strap	✓	✓
SmartBase	Impact protection	✓	✓
SmartLight	3 lights, 360 degree coverage	✓	✓
SmartSwitch	Reusable ON power button cover, to prevent accidental activation	✓	✓
Battery storage life	10 years (Lithium Iron Disulphide) (see Note 3)	✓	✓
SmartChange	Easy service battery	✓	✓
Global service network	200+ service centres across 80+ countries	✓	✓
Multiple self tests	120 short tests for system check and 20 Long tests which include testing of the GNSS receivers (see Note 1)	✓	✓
Warranty	1 + 4 years with 1 year extension on safety check (see Note 2)	✓	✓
Part of McMurdo Ecosystem	Developed with McMurdo's unique understanding of the technical requirements to fully utilise the Cospas-Sarsat infrastructure	✓	✓

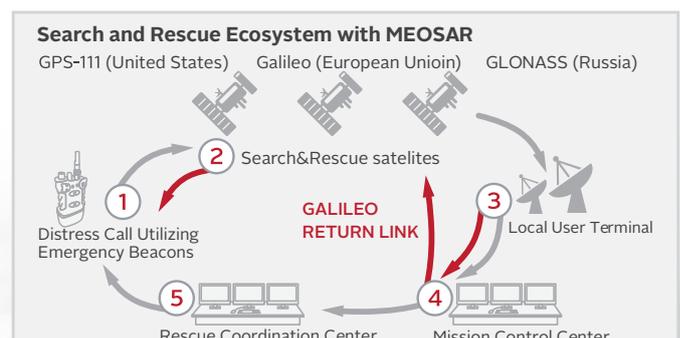
- NOTE 1** Recommendation — 1 test a month over a period of 10 years. Long tests twice a year over a 10 year period. Long tests to be conducted in full view of sky. Obstacles will increase time taken for GPS lock, reducing the battery life. Long Tests can also only be performed if GNSS receiver workability seems suspect.
- NOTE 2** Warranty is 1 year from date of purchase, an additional 4 years upon registration with McMurdo group. On 5 year health check, an additional year will be put in place.
- NOTE 3** As a responsible manufacturer, McMurdo recommends a 5 year health check. Shore-based maintenance mandated vessels, battery health check or replacements should be carried out in accordance with flag Administration requirements and not exceeding 5 years

## Understanding the MEOSAR Ecosystem

MEOSAR Improvements Better Accuracy, Timeliness and Reliability

In the next few years Cospas Sarsat will be rolling out a new search and rescue infrastructure known as MEOSAR. When fully deployed the aim is: Determine beacon location within 5km, 95% of the time, within 10 minutes.

- 72 MEOSAR satellites positioned at Medium Earth Orbit altitude
- Near instantaneous beacon signal detection using bent pipe technology — average 46 minutes faster compared to LEOSAR
- Reduced response times with multiple signal bursts to improve speed and accuracy of location calculation
- Close to 100% reliability due to multiple antenna systems and MEOLUT networking
- When fully operational next generation beacons will become available for sale that also have a return link signal through Galileo satellites
  - Acknowledge signal receipt
- Lives are already being saved with the early operational MEOSAR through faster alerts and greater accuracy, for example in Australia where McMurdo has just finished MEOSAR ground infrastructure installation.



**406 MHZ TRANSMITTER**

Frequency 406.040 MHz + 1kHz  
Power output 5 W nominal  
Modulation Phase (16KOG1D)

**121.5 MHZ TRANSMITTER**

Frequency 121.5 MHz + 3 kHz  
Power output 100 mW nominal  
Modulation Swept tone AM (3K20A3X)

**AIS TRANSMITTER (SEE NOTE 1)**

Frequencies 161.975 MHz (AIS1); 162.025 MHz (AIS2)  
Power output 1 W nominal  
Modulation Phase (16KOGXW)

**GNSS RECEIVER (SEE NOTE 2)**

Constellations GPS, GLONASS, Galileo  
Frequencies 1575.42 MHz (GPS, Galileo); 1602.00 MHz (GLONASS)  
Sensitivity -167 dBm minimum  
Satellites tracked 72 channel

**STROBE LIGHT**

Type 3 high intensity LEDs  
Light output 0.2 cd minimum  
Flash rate 23 flashes per minute

**BATTERY**

Type Lithium iron disulphide  
Operating life 48 hours minimum  
Shelf life (in-service life) 10 years typical in service (see Note3)

**ENVIRONMENT**

Operating temperature -20 °C to +55 °C (-4° F to +131° F)  
Storage temperature -30 °C to +70 °C (-22° F to +158° F)  
Automatic release depth 4 m maximum

**DIMENSIONS (EPIRB)**

Weight 710 g  
Height/Width/Depth 423x104x103 mm (incl. antenna)  
Length of antenna 206 mm

**DIMENSIONS (MANUAL BRACKET)**

Weight 110 g  
Height/Width/Depth 270x125x121 mm

**DIMENSIONS (FLOAT FREE ENCLOSURE)**

Weight 1075 g  
Height/Width/Depth 416x126x132 mm

**STANDARDS APPLIED (SEE NOTE 4)**

COSPAS-SARSAT C/S 1.001 C/S T.007  
USA MED (wheelmark)  
USA USCG & FCC; FCC ID; TBA; 4  
7 CFR Parts 80, 2;  
Europe Dependant on variant  
USA IEC 61097-2; IEC 60945 incl.  
Corrigendum1; Industry Canada  
RSS-287; AS/NZS 4280.1; IMO MSC/  
Circ. 862  
A.662(16); A.694(17); A.810(19);  
A.814(19)

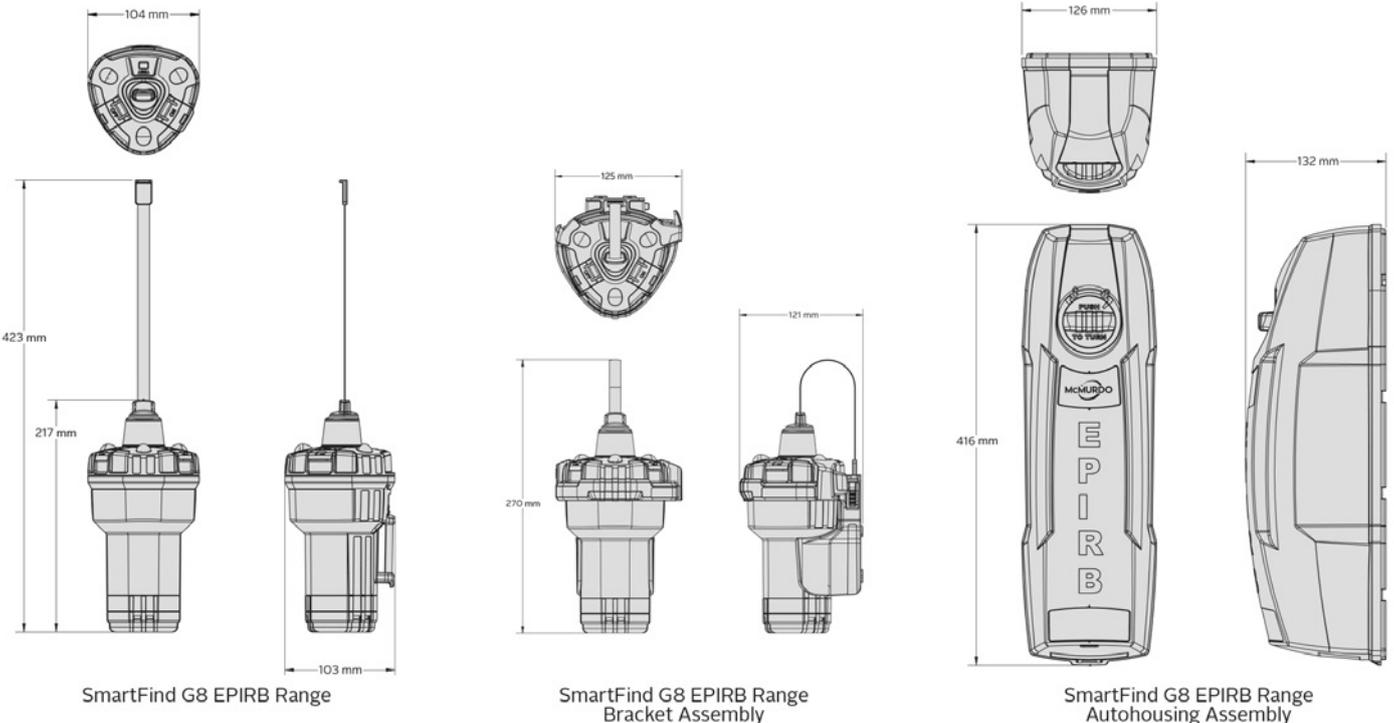
International standards

MO regulations

**PART NUMBERS**

SmartFind G8 Manual EPIRB 23-001-002A  
SmartFind G8 Auto EPIRB 23-001-502A  
SmartFind G8 AIS Manual EPIRB 23-001-001A  
SmartFind G8 AIS Auto EPIRB 23-001-501A

- NOTE 1:** AIS is available on the G8-AIS model only  
**NOTE 2:** GNSS is available on the G8 and G8-AIS models  
**NOTE 3:** As a responsible manufacturer, McMurdo recommends a 5-year health check at the nearest McMurdo approved service agent. Shore-based maintenance mandated vessels, battery health check or replacements should be carried out in accordance with flag Administration requirements and not exceeding 5 years.  
**NOTE 4:** Approvals for the various standards is pending



For service and support, please contact your local distributor or service agent by visiting <https://www.oroliamaritime.com/support/mcmurdo/where-to-buy/> or email [sales-om@orolia.com](mailto:sales-om@orolia.com)