

AU11-X

**5 NRT** ((

**OFF** 

ON

1.5 MHz AIS & VHE DS

# SNAT AU11-X

The sMRT AU11-X is an ATEX Zone 2 certified Man-Overboard Locating device which automatically alerts on 121.5MHz and tracks casualties via AIS and DSC to within 10 metres.

With GPS position updated every minute via AIS, your and every nearby vessel becomes an instant SAR asset. Automatic activation will alert you of every MOB incident within 2 – 5 seconds, track casualties up to 75 miles away and ensure that YOU SAVE LIVES.

121.5 ∜- MHz

# 121.5 MHz

Features a low power homing signal to assist local rescue efforts



### VHF DSC

All nearby vessels are automatically alerted of the man overboard situation via DSC

ΔIS

# AIS

The live location of the man overboard is regularly updated and displayed via AIS



# Dual GNSS

Combines both GPS & Galileo GNSS receivers for accelerated detection

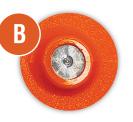


### Class-M

Compliant to European regulation ECC/DEC/ (22)02 relevant to the usage of MOB devices



**STROBE LIGHT** Antenna can be unscrewed and detached for easy storage



WATER SENSOR The AIS & 121.5 MHz transmission will automatically activate in water



MANUAL ACTIVATION Easy push button allows the MSLD to be manually activated



ARMING SWITCH Arming switch, locks in and clearly displays if the MSLD is ON or OFF





Audible Alarm Highlight activation to both aid location and raise awareness of false activation

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**Clipping System** Rugged clipping system allows easy attachment options for life jackets





providing a health check on power and functionality

**Test Functionality** 

Manual device safety,

Dual GNSS Receivers Dual GPS and Galileo GNSS receivers for accelerated location detection



#### **Dual Activation Methods**

Device can be activated manually or after immersion in water meaning it will still work if user is incapacitated

### Water Proof

The device is designed to withstand submersion up to 10 meters, ensuring its protection against water damage

# WHAT IS A Class-M MAN OVERBOARD DEVICE?

To protect AIS from overloads caused by irrelevant off-ship devices, a new regulation, ECC/DEC/(22)02, has been approved and is scheduled to be implemented from December 2024. Under this regulation, in countries that adopt the Class-M standard, AMRDs (autonomous maritime radio devices, such as AIS MOBs), will no longer be permitted to use AIS channels 1 and 2. Instead, they will be required to switch to channel 2006, which is not designated as an emergency channel.

Where ECC/DEC/(22)02 is adopted, non-compliant MOBs will be prohibited to use/license.



BATTERY TYPEAVII MAC2BATTERY LIFEMaintan of 12 hours ar -20°C.BATTERY LIFE-5 yearsOPERATING THAPEDATURE-5 yearsOPERATING THAPEDATURE-50° to -50°C.OPERATING THAPEDATURE50° to -50°C.OPERATING THAPEDATURE50° to -50°C.PURATURATINGEnacles F104BUDYONCYBusyane (ndm: +70)BUDSDING CARD20° to -50°C.BUNGKINTAL50° to -50°C.BUNGKINTAL20° to -50°C.BUNGKINTAL20° to -50°C.BUNGKINTAL10° to -50°C.BUNGKINTAL10° to -50°C.BUNGKINTAL10° to -50°C.BUNGKINTAL10° to -50°C.BUNGKINTAL10° to -50°C.BUNGKINTAL10° to -50°C.SURGATION12° to	GENERAL	
RATERY SHEFLE JPE AT-207C     -3 years       OPERATING TEMPERATURE     -20° to -55°C       STORAGE TEMPERATURE     44° to -70°C       OPERATING TEMPERATURE     44° to -70°C       OPERATING TEMPERATURE     10 95% inconsidening:       STORAGE TEMPERATURE     10 95% inconsidening:       VIERATIONS     EuroCAE ED-44°       PLAMMABILITY RATING     ED 148° 26.33 Category C:       BUOVIKY     Booran (index-7%)       TRANSPORTATION     Af cargo UI 30°1 not huardow       DIMENSION (SCAE)     Somo PL 35° som VL 35° so	BATTERY TYPE	6V Li-MnO2
-0° to 155°C       STORAGE TEMPERATURE     -0° to 155°C       STORAGE TEMPERATURE     -45° to 10°C       OPERATING HUMIDITY     15.05% non-condensing       SHOCK     200 nin       VIBRATONS     DuroCAE DE JAF       FLAMMABILITY PATTING     ED 247 25.3 Category C       BUOYANCY     Booynt lindso-77,1       TRANSPORTATION     Africarry UN 3093 not hazardos       DIMENSIONS (CASE)     60 min 10 × 50 min (VI x 30 min (D)       WEIGHT     230 p       ENVIRONMENTAL     IN 30 312       STROBE LIGHT     15 Caroles       ENVIRONMENTAL EEDSTANCE     IPS/10       MOUTING OPTIONS     Designed to integrate with 30LAS seproved life jakket       STROBE LIGHT     15 Caroles       COMMASS SERE INSTANCE     IPS/10       AGUITING OPTIONS     Designed to integrate with 30LAS seproved life jakket       STROBE LIGHT     15 Caroles       ELEVINONMENTAL EEDSTANCE     IPS/10       ADUITING OPTIONS     Designed to integrate with 30LAS seproved life jakket       STROBE LIGHT     110 R MSS compliant factory programmed free/town Minitim Montiny with 92 perfix       ADUIS SEROFENCONTON	BATTERY LIFE	Minimum of 12 hours at -20°C
-45* to -70°C       OPENATING HUMIDITY     10.95% non-condensing       SHOCK     200 min       VIBRATING HUMIDITY     200 min       VIBRATING HUMIDITY     200 min       VIBRATING HUMIDITY     Enro-CALED-14F       FLAMMABILITY RATING     Enro-CALED-14F       ELAMANDARY     Roward finder-9%)       TRANSPORTATION     Afra cargo UR 300 to thazardosa       DIMENSIONS (CASE)     Elorra 0(4 v 95mm (W) v 25mm (D)       VIERATION     Afra cargo UR 300 to thazardosa       DIMENSIONS (CASE)     Elorra 0(4 v 95mm (W) v 25mm (D)       VIERATION     Afra cargo UR 300 to thazardosa       DIMENSIONS (CASE)     Elorra 0(4 v 95mm (W) v 25mm (D)       VIERATION     Afra cargo UR 300 to thazardosa       DIMENSIONS (CASE)     Elorra 0(4 v 95mm (W) v 25mm (D)       VIERATION     IN 55 Candida       MURINTIA LEBISTANCE     PM410       MOUNTING OPTONS     Delegined to integrate with a SOLAS approved life jacket       SELFID     TUV M 55% Compliant to traversaw       ALERTING RADUUS     UP to 55M 400 pending on hight of antensal?       ALERTING RADUUS     UP to 51M 400 pending on hight of antensal?	BATTERY SHELF LIFE AT +20°C	>3 years
DPERATINC HUMIDITY     Tu 95% non-candeming       SHOCK     200 min       VIRRATIONS     EuroCAE ED-14F       FLAMMABLITY RATING     ED 147 6.0.3 Catrgory C:       BUOYINCY     Buoyani (ndue-7%)       TRANSPORTATION     Air crup U03020 nd Lacardous       DIMENSIONS (CASE)     Bitme (H4 × 5em (VX) × 35mm (D)       WEISONS (CASE)     Bitme (H4 × 5em (VX) × 35mm (D)       WEISONS (CASE)     Bitme (H4 × 5em (VX) × 35mm (D)       WEISONS (CASE)     Bitme (H4 × 5em (VX) × 35mm (D)       WEISONS (CASE)     Bitme (H4 × 5em (VX) × 35mm (D)       WEISONS (CASE)     Bitme (H4 × 5em (VX) × 35mm (D)       WEISONS (CASE)     Bitme (H4 × 5em (VX) × 35mm (D)       WEISONS (CASE)     Bitme (H4 × 5em (VX) × 35mm (D)       WEISONS (CASE)     Bitme (H4 × 5em (VX) × 35mm (D)       WEISONS (CASE)     Designed to integrate with > 5OLAS approved life jacket       SUMONNTAL (ESISTANCE     Designed to integrate with > 5OLAS approved life jacket       SUM (DV + 2 × 54M × 2 ×	OPERATING TEMPERATURE	-20° to +55°C
SHOCK     20G min       VIBRATIONS     EuroCAE ED-4AF       FLAMMABILITY RATING     ED 14F 26.33 Category C:       BUOYANCY     BUOYANCY       BUOYANCY     Shard INC # Sacorapitant Exacorapitant Ex	STORAGE TEMPERATURE	-45° to +70°C
VIRATIONSEuroCAE ED-14FFLAMMABILITY RATINGELD 14F 26.3.3 Category C:BUOYANCYBuoyani (ndiex-7%)TAMASPORTATIONAir cargo UN 3021 not haardousDIMENSINS (CASE)990m (H1 x 95mm (VX a 35mm (D)WEIGHT230gENNROMENTALEN 303 122STROBE LIGHT15 CandelaENNROMENTALEN 303 123STROBE LIGHT15 CandelaENNROMENTAL RESISTANCEIP49210MOUNTING OPTIONSDenigned in infegrate with a SOLAS approved life jecketSELF IDITU-8 M 583 compliant factory regrammed freeInstite identity with 972 performCOMPASS SAFE DISTANCEJ90m (H2 4 9 mills) di antennol*ALERTING RADUSUp to SM (Jegerafing on height of antennol*ALERTING RADUS121 SOD MH2ALERTING RADUSVHF DSC Channel 70.156 S22 MH2. AIS Channel 1: 161.975 MH2. AIS Channel 2: 162.025 MH2VIFF DSC TA POWER OUTPUTNominal 11V EIRPVIFF DSC TA POWER OUTPUTAIS and VHF DSCVIFF DSC TA POWER OUTPUTAIS and VHF DSCDISTERSS MOULUTIONAIX cargo turb (IIS 1, AIS2) VHF DSC Channel 7: 156.525 MH2. AIS Channel 2: 156.255 MH2MARINE BAND FREQUENCIES10.01 VF EIRPVIFF DSC TA POWER OUTPUTNominal 11V EIRPVIFF DSC TA POWER OUTPUTAIS and VHF DSCDISTERSS MOULUTIONAIX cargo turb (IIS 1, AIS2) VHF DSC Channel 7: 156.525 MH2MARINE BAND PROQUENCIES10.01 VF EIRPMARINE BAND PROQUENCIES10.01 VF EIRPCHART NAACerter-fed dipole, comprising coadal cable and 1/8 coll vhilpGISTERSS MOULUTION	OPERATING HUMIDITY	To 95% non-condensing
FLAMMABILITY RATING     ED 14F 26.3.3 Category C:       BLOVANCY     Blazynfi (nelsc-7%)       TRANSPORTATION     Air cargo UN 3091 not hazardoas       DIMENSIONS EGSE]     80mm Bil x 95mm (W) x 35mm (D)       WEIGHT     250g       ENVIRONMENTAL     EN 303 132       STROBE LIGHT     15 Candela       MOUNTING OFTIONS     Designed to integrate with a SOLAS approved life jacket       SELFID     17U-R M 585 compliant factory programmed freeform Maritime identify with 972 perfox       COMPASS SAFE DISTANCE     20m for -11* deflection]       ALEETING RADUS     Up to SNM (depending on height of antenna)*       ALEETING RADUS     Up to SNM (depending on height of antenna)*       ALEETING RADUS     Up to SNM (depending on height of antenna)*       ALEETING RADUS     Up to SNM (depending on height of antenna)*       ALEETING RADUS     121.500 M/r       ALEETING RADUNCES     121.500 M/r       AS to POWER OUTPUT     Nominal 1W EIPP       VIF DSC T: POWER OUTPUT     Nominal 1W EIPP       SIGNALLING TYPE     AlS and VFF DSC       DISTRESS MODULATION     AM compliant to TU-R M.490-3       AIR AND POWER     Cincure polarised wide angle bub	SHOCK	20G min
BUOYANCY     Buoyant (index-7x)       TKANSPORTATION     Air cargo UN 3091 not hazerbous       DIMENSIONS (CASE)     BIDmm (H) x 95mm (M) x 35mm (D)       WEIGHT     250g.       ENVIRONMENTAL     EN 303 132       STROBE LIGHT     13 Candels       ENVIRONMENTAL     EN 303 12       STROBE LIGHT     13 Candels       ENVIRONMENTAL     EN 4910       MOUNTING OPTIONS     Designed to integrate with a SOLAS approved life jacket       SELF ID     ITU-R MSBS compliant factory programmed freeform Maritime Identity with 972 perfs       COMPASS SAFE DISTANCE     30cm (for x1° deflection)       ALEETING RADIUS     Up to 5NM (depending on height of antenna)*       ALEETING RADIUS     Up to 5NM (depending on height of antenna)*       ATEX CLASSIFICATION     Exic T4 Ge       TRANSMITTER PACKAGES     121.500 M4/c       AIR BAND FREQUENCIES     VIIF DEX Channel 70: 156.525 M1/L, AIS Channel 1: 161.975 M1/L, AIS Channel 2: 162.025 M1/L       VIEF TRANSMESSION FREQUENCIES     VIIF DEX Channel 70: 156.525 M1/L       SIGNALLING TYPE     AIS and VIAF DSC       JOST POWER OUTPUT     Nominal 1W EIRP       MARINE-BAND FREQUENCIES     161.975, 162.025 M1/L (AI	VIBRATIONS	EuroCAE ED-14F
TAANSPORTATION     Air carge UN 3091 not huxanduus       DimEnsions (CASE)     80mm (Hi x 99mm (W) x 35mm (D)       WEIGHT     250g       ENVIRONMENTAL     EN 303 132       STROBE LIGHT     15 Candela       ENVIRONMENTAL     EN 303 132       STROBE LIGHT     15 Candela       ENVIRONMENTAL RESISTANCE     IP68:10       MOUNTING OPTIONS     Designed to integrate with a SOLAS approved life jacket       SELF ID     17U-R M X85 compliant factory programmed freeform Maritime Identity with 972 prefix       COMPASS SAPE DISTANCE     300m (for -1 <sup>4</sup> deflection)       ALETTING RADIUS     Uto Is SMM (depending on height of antenna) <sup>4</sup> ATEX CLASSIFICATION     Ex is 14 Ge       THANSMONE CUTPUT     Nominal 1W EIRP       AIR BAND FREQUENCIES     VIFP DSC Channel 70: 156:525 MHz, AIS Channel 1: 161:975 MHz, AIS Channel 2: 162:025 MHz       VIFF DSC TA POWER OUTPUT     Nominal 1W EIRP       SIGNALLING TYPE     AIS and VIF-DSC       IDISTRES MODULATION     AM compliant to TIV.R A690-3       AIR BAND PREQUENCIES     161: 975, 162:025 MHz (AIS1, AIS2, VIF DSC Channel 70: 156:525 MHz       MARINE-BAND PREQUENCIES     161: 975, 162:025 MHz (AIS1, AIS2, VIF DSC Channel 70: 156:525 MHz	FLAMMABILITY RATING	ED 14F 26.3.3 Category C:
DMENSIONS (CASE)     BOmm (H) x 95mm (W) x 35mm (D)       WEIGHT     250g       ENVIRONMENTAL     EN 303 122       STROBE LIGHT     15 Candela       ENVIRONMENTAL RESISTANCE     IP68:10       MOUNTING OPTIONS     Designed to integrate with a SOLAS approved life jacket       SELF ID     ITU-E M 395 compliant factory programmed freeform Maritime Identity with 972 prefix       COMPASS SAFE DISTANCE     30cm (for 12° deflection)       ALERTING RADIUS     Up to SNM (depending on height of anterna)*       ATEX CASSIFICATION     Ex is 74 Ge       TRANSMITTER PACKAGES     121:500 MHz       AIR BAND FREQUENCIES     121:500 MHz       AIR BAND FREQUENCIES     121:500 MHz       IS TA POWER OUTPUT     Nominal 1W EIRP       VIF DCX TO POWER OUTPUT     Nominal 1W EIRP       VIF DCX POWER OUTPUT     Als and VIF-DSC       DISTRESS MODULATION     AM compliant to ITU-R M 690 3       AIR BAND POWER     100mW PERP       MARINE BAND POWER     Circular polarised wide-angle bulb       GPS plus Galleo     Circular polarised wide-angle bulb       GNSS RECEIVER TYPE     GPS plus Galleo       TIFUT MET OF FIRST FDD)     <	BUOYANCY	Buoyant (index=9%)
VEIGHT     25%       ENVIRONMENTAL     EN 303 132       STROBE LIGHT     15 Candela       ENVIRONMENTAL RESISTANCE     IP68:10       MOUNTING OPTIONS     Designed to integrate with a SOLAS approved life jacket       SELF ID     ITU-R M 585 complant factory programmed freeform Maritime identity with 972 prefix       COMPASS SAFE DISTANCE     30cm (for 42° deflection)       ALERTING RADIUS     Up to SNM (depending on height of antenna)"       ALERTING RADIUS     Up to SNM (depending on height of antenna)"       ALERTING RADIUS     Up to SNM (depending on height of antenna)"       ALERTING RADIUS     Up to SNM (depending on height of antenna)"       ALERTING RADIUS     Up to SNM (depending on height of antenna)"       ALERTING RADIUS     Up to SNM (depending on height of antenna)"       ALERTING RADIUS     Up to SNM (depending on height of antenna)"       ALERTING RADIUS     Up to SNM (depending on height of antenna)"       ALERTING RADIUS     Vert SNM (DEPENDENCIES       ALERTING PROVER     VHF DSC Channel 70: 156.525 MHz, AIS Channel 2: 161.075 MHz, AIS Channel 2: 162.025 MHz       MARINE-BAND FREQUENCIES     100mV PERP       MARINE-BAND POWER     Contrel dipole, comprising coasial cable and 1/8 coil whip <td>TRANSPORTATION</td> <td>Air cargo UN 3091 not hazardous</td>	TRANSPORTATION	Air cargo UN 3091 not hazardous
ENVIRONMENTAL     EN 303 132       STROBE LIGHT     15 Candela       ENVIRONMENTAL RESISTANCE     IP68:10       MOUNTING OPTIONS     Designed to integrate with a SOLAS approved life jacket       SELF ID     ITU-R M 585 compliant factory programmed freeform Maritime Identity with 972 prefix       COMPASS SAFE DISTANCE     30cm (for <1° definection)	DIMENSIONS (CASE)	80mm (H) x 95mm (W) x 35mm (D)
STROBE LIGHT     15 Candela       ENVIRONMENTAL RESISTANCE     IP68:10       MOUNTING OPTIONS     Designed to integrate with a SOLAS approved life jacket       SELF ID     ITU-R M.S85 compliant factory programmed treeform Maritime Identity with 972 prefix       COMPASS SAFE DISTANCE     30cm (for <1° deflection)	WEIGHT	250g
IP68:10       MOUNTING OPTIONS     Designed to integrate with a SOLAS approved life jacket       SELF ID     ITU-R MS85 compliant factory programmed freeform Maritime identity with 972 prefix       COMPASS SAFE DISTANCE     30cm (for <1º deflection)	ENVIRONMENTAL	EN 303 132
MOUNTING OPTIONS     Designed to integrate with a SOLAS approved life jacket       SELF ID     ITU-R MS85 compliant factory programmed freeform Maritime Identity with 972 prefix       COMPASS SAFE DISTANCE     30cm for <1° deflection)	STROBE LIGHT	15 Candela
SELF ID     ITU-R MS85 compliant factory programmed freeform Maritime klentity with 972 prefix       COMPASS SAFE DISTANCE     30cm (for <1° deflection)	ENVIRONMENTAL RESISTANCE	IP68:10
COMPASS SAFE DISTANCE     30cm (for <1* deflection)	MOUNTING OPTIONS	Designed to integrate with a SOLAS approved life jacket
ALERTING RADIUS     Up to SNM (depending on height of antenna)*       ATEX CLASSIFICATION     Ex is T4 Ge       TRANSMITTER PACKAGES     121.500 MHz       AIR BAND FREQUENCIES     121.500 MHz       AIS Tx POWER OUTPUT     Nominal 1W EIRP       VHF TRANSMISSION FREQUENCIES     VHF DSC Channel 70: 156.525 MHz, AIS Channel 1: 161.975 MHz, AIS Channel 2: 162.025 MHz       VHF DSC Tx POWER OUTPUT     Nominal 1W EIRP       SIGNALLING TYPE     AIS and VHF-DSC       DISTRESS MODULATION     AM compliant to ITU-R M.690·3       AIR BAND POWER     160mW PERP       MARINE-BAND PREQUENCIES     161.975, 162.025 MHz (AIS1, AIS2), VHF DSC Channel 70: 156.525 MHz       MARINE-BAND POWER     160mW PERP       MARINE-BAND POWER     Centre-fed dipole, comprising coaxial cable and 1/8 coll whip       GPS ANTEINNA     Centre-fed dipole, comprising coaxial cable and 1/8 coll whip       GNSS RECEIVER TYPE     GPS plus Gailleo       TIFF (TIME TO FIRST FIX)     30 seconds (typical) with nominal GPS signal levels - 130dBm       GNSS UPDATE RATE     Every minute       VHF DSC AND AIS ALERTS     JU seconds of GNSS position acquisition	SELF ID	ITU-R M.585 compliant factory programmed freeform Maritime Identity with 972 prefix
ATEX CLASSIFICATION   Ex ic T4 Gc     TRANSMITTER PACKAGES   121.500 MHz     AIR BAND FREQUENCIES   121.500 MHz     AIS Tx POWER OUTPUT   Nominal 1W EIRP     VHF TRANSMISSION FREQUENCIES   VHF DSC Channel 70: 156.525 MHz, AIS Channel 1: 161.975 MHz, AIS Channel 2: 162.025 MHz     VHF DSC Tx POWER OUTPUT   Nominal 1W EIRP     SIGNALLING TYPE   AIS and VHF-DSC     DISTRESS MODULATION   AM compliant to ITU-R M.690-3     AIR BAND POWER   100mW PERP     MARINE-BAND FREQUENCIES   161.975, 162.025 MHz (AIS1, AIS2), VHF DSC Channel 70: 156.525 MHz     MARINE-BAND POWER   Nominal 1W EIRP     VHF ANTENNA   Centre-fed dipole, comprising coaxial cable and 1/8 coll whip     GPS ANTENNA   Circular-polarised wide-angle bulb     GNSS RECEIVER   GPS plus Galileo     TTFF (TIME TO FIRST FIX)   30 seconds (typical) with nominal GPS signal levels -130dBm     GNSS UPDATE RATE   Every minute     VHF DSC AND AIS ALERTS   Within 30 seconds of GNSS position acquisition	COMPASS SAFE DISTANCE	30cm (for <1° deflection)
TRANSMITTER PACKAGES     AIR BAND FREQUENCIES   121.500 MHz     AIS TX POWER OUTPUT   Nominal 1W EIRP     VHF TRANSMISSION FREQUENCIES   VHF DSC Channel 70: 156.525 MHz, AIS Channel 1: 161.975 MHz, AIS Channel 2: 162.025 MHz     VHF DSC TX POWER OUTPUT   Nominal 1W EIRP     SIGNALLING TYPE   AIS and VHF-DSC     DISTRESS MODULATION   AM compliant to ITU-R M.690-3     AIR BAND POWER   100mW PERP     MARINE-BAND FREQUENCIES   161.975, 162.025 MHz (AIS1, AIS2), VHF DSC Channel 70: 156.525 MHz     MARINE-BAND FREQUENCIES   161.975, 162.025 MHz (AIS1, AIS2), VHF DSC Channel 70: 156.525 MHz     MARINE-BAND POWER   Nominal 1W EIRP     VHF ANTENNA   Centre-fed dipole, comprising coaxial cable and 1/8 coil whip     GPS ANTENNA   Circular-polarised wide-angle bulb     GNSS RECEIVER   GPS plus Galileo     TTFF (TIME TO FIRST FIX)   30 seconds (typical) with nominal GPS signal levels -130dBm     GNSS UPDATE RATE   Every minute     VHF DSC AND AIS ALERTS   AIS	ALERTING RADIUS	Up to 5NM (depending on height of antenna)*
AIR BAND FREQUENCIES   121.500 MHz     AIS Tx POWER OUTPUT   Nominal 1W EIRP     VHF TRANSMISSION FREQUENCIES   VHF DSC Channel 70: 156.525 MHz, AIS Channel 1: 161.975 MHz, AIS Channel 2: 162.025 MHz     VHF DSC Tx POWER OUTPUT   Nominal 1W EIRP     SIGNALLING TYPE   AIS and VHF-DSC     DISTRESS MODULATION   AM compliant to ITU-R M.690-3     AIR BAND POWER   100mW PERP     MARINE-BAND FREQUENCIES   161.975, 162.025 MHz (AIS1, AIS2), VHF DSC Channel 70: 156.525 MHz     MARINE-BAND FREQUENCIES   161.975, 162.025 MHz (AIS1, AIS2), VHF DSC Channel 70: 156.525 MHz     MARINE-BAND POWER   Nominal 1W EIRP     VHF ANTENNA   Centre-fed dipole, comprising coaxial cable and 1/8 coil whip     GPS ANTENNA   Circular-polarised wide-angle bulb     GNSS RECEIVER   GPS plus Galileo     TTFF (TIME TO FIRST FIX)   30 seconds (typical) with nominal GPS signal levels -130dBm     GNSS UPDATE RATE   Every minute     VHF DSC AND AIS ALERTS   Within 30 seconds of GNSS position acquisition	ATEX CLASSIFICATION	Ex ic T4 Gc
AIS TX POWER OUTPUT   Nominal 1W EIRP     YHF TRANSMISSION FREQUENCIES   YHF DSC Channel 70: 156.525 MHz, AIS Channel 1: 161.975 MHz, AIS Channel 2: 162.025 MHz     YHF DSC TX POWER OUTPUT   Nominal 1W EIRP     SIGNALLING TYPE   AIS and YHF-DSC     DISTRESS MODULATION   AM compliant to ITU-R M.690-3     AIR BAND POWER   100mW PERP     MARINE-BAND FREQUENCIES   161.975, 162.025 MHz (AIS1, AIS2), VHF DSC Channel 70: 156.525 MHz     MARINE-BAND POWER   Nominal 1W EIRP     VHF ANTENNA   Centre-fed dipole, comprising coaxial cable and 1/8 coil whip     GPS ANTENNA   Circular-polarised wide-angle bulb     GNSS RECEIVER   GPS plus Galileo     TIFF (TIME TO FIRST FIX)   30 seconds (typical) with nominal GPS signal levels -130dBm     GNSS UPDATE RATE   Every minute     VHF DSC AND AIS ALERTS   AIS on Subjection acquisition	TRANSMITTER PACKAGES	
VHF TRANSMISSION FREQUENCIES   VHF DSC Channel 70: 156.525 MHz, AIS Channel 1: 161.975 MHz, AIS Channel 2: 162.025 MHz     VHF DSC Tx POWER OUTPUT   Nominal 1W EIRP     SIGNALLING TYPE   AIS and VHF-DSC     DISTRESS MODULATION   AM compliant to ITU-R M.690-3     AIR BAND POWER   100mW PERP     MARINE-BAND FREQUENCIES   161.975, 162.025 MHz (AIS1, AIS2), VHF DSC Channel 70: 156.525 MHz     MARINE-BAND POWER   Nominal 1W EIRP     VHF ANTENNA   Centre-fed dipole, comprising coaxial cable and 1/8 coil whip     GPS ANTENNA   Circular-polarised wide-angle bulb     GNSS RECEIVER   GPS plus Galileo     TTFF (TIME TO FIRST FIX)   30 seconds (typical) with nominal GPS signal levels -130dBm     GNSS UPDATE RATE   Every minute     VHF DSC AND AIS ALERTS   Within 30 seconds of GNSS position acquisition	AIR BAND FREQUENCIES	121.500 MHz
VHF DSC Tx POWER OUTPUT   Nominal 1W EIRP     SIGNALLING TYPE   AIS and VHF-DSC     DISTRESS MODULATION   AM compliant to ITU-R M.690-3     AIR BAND POWER   100mW PERP     MARINE-BAND FREQUENCIES   161.975, 162.025 MHz (AIS1, AIS2), VHF DSC Channel 70: 156.525 MHz     MARINE-BAND POWER   Nominal 1W EIRP     VHF ANTENNA   Centre-fed dipole, comprising coaxial cable and 1/8 coil whip     GPS ANTENNA   Circular-polarised wide-angle bulb     GNSS RECEIVER   GPS plus Galileo     TTFF (TIME TO FIRST FIX)   30 seconds (typical) with nominal GPS signal levels -130dBm     GNSS UPDATE RATE   Every minute     VHF DSC AND AIS ALERTS   Within 30 seconds of GNSS position acquisition	AIS TX POWER OUTPUT	Nominal 1W EIRP
SIGNALLING TYPE   AIS and VHF-DSC     DISTRESS MODULATION   AM compliant to ITU-R M.690-3     AIR BAND POWER   100mW PERP     MARINE-BAND FREQUENCIES   161.975, 162.025 MHz (AIS1, AIS2), VHF DSC Channel 70: 156.525 MHz     MARINE-BAND POWER   Nominal 1W EIRP     VHF ANTENNA   Centre-fed dipole, comprising coaxial cable and 1/8 coil whip     GPS ANTENNA   Circular-polarised wide-angle bulb     GNSS RECEIVER   GPS plus Galileo     TTFF (TIME TO FIRST FIX)   30 seconds (typical) with nominal GPS signal levels -130dBm     GNSS UPDATE RATE   Every minute     VHF DSC AND AIS ALERTS   Within 30 seconds of GNSS position acquisition	VHF TRANSMISSION FREQUENCIES	VHF DSC Channel 70: 156.525 MHz, AIS Channel 1: 161.975 MHz , AIS Channel 2: 162.025 MHz
DISTRESS MODULATION   AM compliant to ITU-R M.690-3     AIR BAND POWER   100mW PERP     MARINE-BAND FREQUENCIES   161.975, 162.025 MHz (AIS1, AIS2), VHF DSC Channel 70: 156.525 MHz     MARINE-BAND POWER   Nominal 1W EIRP     VHF ANTENNA   Centre-fed dipole, comprising coaxial cable and 1/8 coil whip     GPS ANTENNA   Circular-polarised wide-angle bulb     GNSS RECEIVER   GPS plus Galileo     TTFF (TIME TO FIRST FIX)   30 seconds (typical) with nominal GPS signal levels -130dBm     GNSS UPDATE RATE   Every minute     VHF DSC AND ALSERTS   Within 30 seconds of GNSS position acquisition	VHF DSC Tx POWER OUTPUT	Nominal 1W EIRP
AIR BAND POWER   100mW PERP     MARINE-BAND FREQUENCIES   161.975, 162.025 MHz (AIS1, AIS2), VHF DSC Channel 70: 156.525 MHz     MARINE-BAND POWER   Nominal 1W EIRP     VHF ANTENNA   Centre-fed dipole, comprising coaxial cable and 1/8 coil whip     GPS ANTENNA   Circular-polarised wide-angle bulb     GNSS RECEIVER   GPS plus Galileo     TIFF (TIME TO FIRST FIX)   30 seconds (typical) with nominal GPS signal levels -130dBm     GNSS UPDATE RATE   Every minute     VHF DSC AND ALS ALERTS   Within 30 seconds of GNSS position acquisition	SIGNALLING TYPE	AIS and VHF-DSC
MARINE-BAND FREQUENCIES   161.975, 162.025 MHz (AIS1, AIS2), VHF DSC Channel 70: 156.525 MHz     MARINE-BAND POWER   Nominal 1W EIRP     VHF ANTENNA   Centre-fed dipole, comprising coaxial cable and 1/8 coil whip     GPS ANTENNA   Circular-polarised wide-angle bulb     GNSS RECEIVER   GPS plus Galileo     TTFF (TIME TO FIRST FIX)   30 seconds (typical) with nominal GPS signal levels -130dBm     GNSS UPDATE RATE   Every minute     VHF DSC AND AIS ALERTS   Within 30 seconds of GNSS position acquisition	DISTRESS MODULATION	AM compliant to ITU-R M.690-3
MARINE-BAND POWER   Nominal 1W EIRP     VHF ANTENNA   Centre-fed dipole, comprising coaxial cable and 1/8 coil whip     GPS ANTENNA   Circular-polarised wide-angle bulb     GNSS RECEIVER   Circular-polarised wide-angle bulb     GNSS RECEIVER TYPE   GPS plus Galileo     TTFF (TIME TO FIRST FIX)   30 seconds (typical) with nominal GPS signal levels -130dBm     GNSS UPDATE RATE   Every minute     VHF DSC AND AIS ALERTS   Within 30 seconds of GNSS position acquisition	AIR BAND POWER	100mW PERP
VHF ANTENNA Centre-fed dipole, comprising coaxial cable and 1/8 coil whip   GPS ANTENNA Circular-polarised wide-angle bulb   GNSS RECEIVER GPS plus Galileo   TTFF (TIME TO FIRST FIX) 30 seconds (typical) with nominal GPS signal levels -130dBm   GNSS UPDATE RATE Every minute   VHF DSC AND AIS ALERTS Within 30 seconds of GNSS position acquisition	MARINE-BAND FREQUENCIES	161.975, 162.025 MHz (AIS1, AIS2), VHF DSC Channel 70: 156.525 MHz
GPS ANTENNA   Circular-polarised wide-angle bulb     GNSS RECEIVER   GPS plus Galileo     GNSS RECEIVER TYPE   GPS plus Galileo     TTFF (TIME TO FIRST FIX)   30 seconds (typical) with nominal GPS signal levels -130dBm     GNSS UPDATE RATE   Every minute     VHF DSC AND AIS ALERTS   Within 30 seconds of GNSS position acquisition	MARINE-BAND POWER	Nominal 1W EIRP
GNSS RECEIVER   GNSS RECEIVER TYPE GPS plus Galileo   TTFF (TIME TO FIRST FIX) 30 seconds (typical) with nominal GPS signal levels -130dBm   GNSS UPDATE RATE Every minute   VHF DSC AND AIS ALERTS Within 30 seconds of GNSS position acquisition	VHFANTENNA	Centre-fed dipole, comprising coaxial cable and 1/8 coil whip
GNSS RECEIVER TYPE   GPS plus Galileo     TTFF (TIME TO FIRST FIX)   30 seconds (typical) with nominal GPS signal levels -130dBm     GNSS UPDATE RATE   Every minute     VHF DSC AND AIS ALERTS   Vithin 30 seconds of GNSS position acquisition	GPS ANTENNA	Circular-polarised wide-angle bulb
TTFF (TIME TO FIRST FIX) 30 seconds (typical) with nominal GPS signal levels -130dBm   GNSS UPDATE RATE Every minute   VHF DSC AND AIS ALERTS Within 30 seconds of GNSS position acquisition	GNSS RECEIVER	
GNSS UPDATE RATE Every minute   VHF DSC AND AIS ALERTS Within 30 seconds of GNSS position acquisition	GNSS RECEIVER TYPE	GPS plus Galileo
VHF DSC AND AIS ALERTS     AIS   Within 30 seconds of GNSS position acquisition	TTFF (TIME TO FIRST FIX)	30 seconds (typical) with nominal GPS signal levels -130dBm
AIS Within 30 seconds of GNSS position acquisition	GNSS UPDATE RATE	Every minute
	VHF DSC AND AIS ALERTS	
INITIAL OPEN LOOP DSC ALERT Within 30 seconds after activation	AIS	Within 30 seconds of GNSS position acquisition
	INITIAL OPEN LOOP DSC ALERT	Within 30 seconds after activation

Every 5 minutes for the first 30 minutes, every 10 minutes thereafter until VHF-DSC acknowledgement or the battery expires

FIRST DSC GPS DATA ALERT SENT	Immediately after GNSS position acquired
CONTROLS AND OPERATION	
AUTOMATIC WATER ACTIVATION	After 2 seconds of water sensor immersion
MANUAL ACTIVATION	Once armed, press Activation Button
OPERATING TIME	>12 hours continuous
STANDBY BATTERY LIFE	>3 years
PERMANENTLY ARMED	12 hours operation if armed for 12 months
GPS POSITION UPDATE	Minimum of 6 per minute
GPS TIME TO FIRST LOCK	Typically <1 minute under normal operating conditions
ALERT INDICATION	Audible and visible
APPROVALS	
EUROPEAN APPROVALS	EN 303 132 V2.1.1
EMC	EN 301 489-3 EN 301 489-19
SAFETY	EN 63268-1: 2018 IEC 62368-1:2018 CSA/UL 62368-1:2019 AS/NZS 62368.1:2022
RADIO (121.5 MHZ)	EN 302 961 V1.2.1
RADIO (AIS)	EN 303 098 V1.2.1
ΑΤΕΧ	IEC 60079-0:2012 IEC 60079-11:2012

\* Expected range derived from sea trials. Actual alerting range dependent on sea state, atmospheric conditions and height/altitude of receiving antenna.

