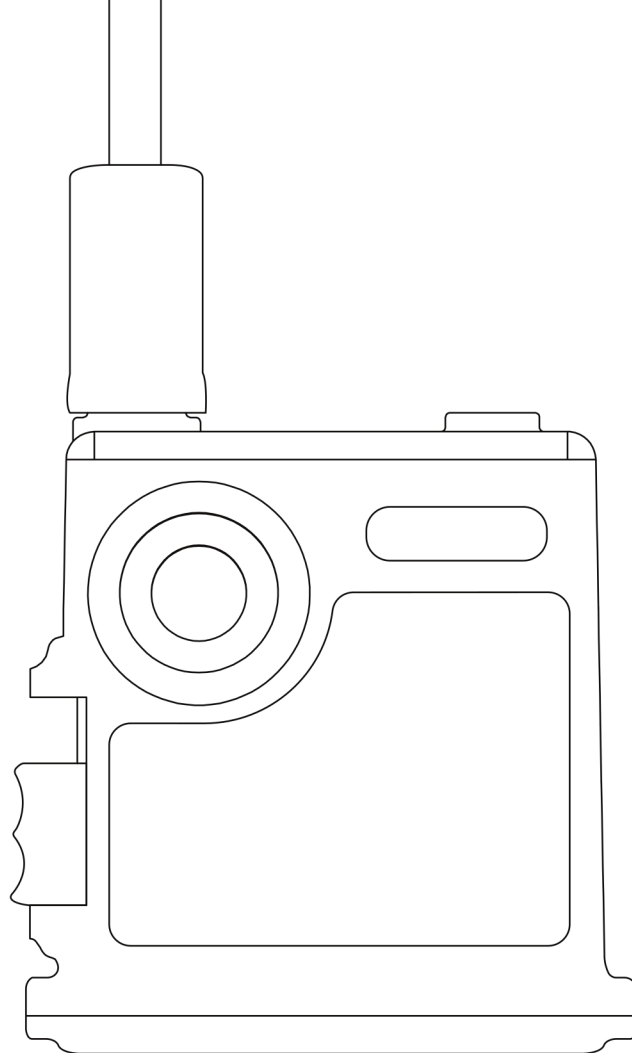


# **sMRT AU10-M**

## **TECHNICAL DATA SHEET**



## **IDENTIFICATION**

|                           |                                                                                                                                                                                                                                                                                                                                      |
|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>PRODUCT NAME</b>       | sMRT AU10-M                                                                                                                                                                                                                                                                                                                          |
| <b>MANUFACTURERS NAME</b> | Marine Rescue Technologies Ltd                                                                                                                                                                                                                                                                                                       |
| <b>ADDRESS</b>            | Wescom Group, Unit J1, Anlaby Trade Park, Springfield Way, Anlaby, Hull, HU10 6RJ, United Kingdom                                                                                                                                                                                                                                    |
| <b>TELEPHONE NUMBER</b>   | +44 (0)1482 679 300                                                                                                                                                                                                                                                                                                                  |
| <b>FAX NUMBER</b>         | +44 (0)1482 679145                                                                                                                                                                                                                                                                                                                   |
| <b>EMAIL ADDRESS</b>      | smrt@wescom-group.com                                                                                                                                                                                                                                                                                                                |
| <b>DATE OF ISSUE</b>      | April 2025                                                                                                                                                                                                                                                                                                                           |
| <b>ISSUE NUMBER</b>       | 3                                                                                                                                                                                                                                                                                                                                    |
| <b>DESCRIPTION</b>        | The sMRT AU10-M is a DSC Class M Maritime Survivor Locating Device (MSLD). Once armed, the device is designed to activate automatically in the event of a man overboard incident. Following activation, the sMRT AU10-M transmits a 121.5 MHz and VHF DSC distress alert whilst continuously updating location information, via AIS. |



**BATTERY SHIPPING INFORMATION: UN3091 LITHIUM METAL BATTERIES CONTAINED IN EQUIPMENT IN COMPLIANCE WITH IATA PI: 970 SECTION II.**



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| GENERAL                      |                                                                                          |
|------------------------------|------------------------------------------------------------------------------------------|
| BATTERY TYPE                 | 6V Li-MnO <sub>2</sub>                                                                   |
| BATTERY LIFE                 | Minimum of 12 hours at -20°C                                                             |
| BATTERY SHELF LIFE AT +20°C  | >3 years                                                                                 |
| OPERATING TEMPERATURE        | -20° to +55°C                                                                            |
| STORAGE TEMPERATURE          | -45° to +70°C                                                                            |
| OPERATING HUMIDITY           | To 95% non-condensing                                                                    |
| SHOCK                        | 20G min                                                                                  |
| VIBRATIONS                   | EuroCAE ED-14F                                                                           |
| FLAMMABILITY RATING          | ED 14F 26.3.3 Category C:                                                                |
| BUOYANCY                     | Buoyant (index=9%)                                                                       |
| TRANSPORTATION               | Air cargo UN 3091 not hazardous                                                          |
| DIMENSIONS (CASE)            | 80mm (H) x 95mm (W) x 35mm (D)                                                           |
| WEIGHT                       | 250g                                                                                     |
| 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° deflection)                                                                |
| ALERTING RADIUS              | Up to 5NM (depending on height of antenna)*                                              |
| 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 POWER            | Nominal 1W EIRP                                                                          |
| VHF ANTENNA                  | Centre-fed dipole, comprising coaxial cable and lambda/8 coil whip                       |
| 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                                                                             |



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| VHF DSC AND AIS ALERTS          |                                                                                                                            |
|---------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| AIS                             | Within 30 seconds of GNSS position acquisition                                                                             |
| INITIAL OPEN LOOP DSC ALERT     | Within 30 seconds after activation                                                                                         |
| SUBSEQUENT OPEN LOOP DSC ALERTS | 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 301 489-22 V1.3.1<br>EN 301 489-1 V1.8.1                                                                                |
| SAFETY                          | EN 60950-1:2006                                                                                                            |
| MARINE                          | IEC 60945:2002                                                                                                             |
| RADIO (121.5 MHz)               | EN 300 152-2 V1.1.1<br>EN 302 961-2 V1.2.2                                                                                 |
| RADIO (AIS)                     | ETS 303 098-1 V1.2.1<br>RTCM 11901.1:2012                                                                                  |

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



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