

sMRT SHIELD

TECHNICAL DATA SHEET



TAKING THE SEARCH OUT OF SEARCH AND RESCUE

SECTION 1: IDENTIFICATION

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|---------------------------|--|
| Product Name | sMRT SHIELD |
| Manufacturers Name | Marine Rescue Technologies Ltd |
| Address | Marshall House, Zarya Court, Grovehill Road, Beverley, HU17 0JG, United Kingdom. |
| Telephone Number | +44 (0)1482 679 300 |
| Fax Number | +44 (0)1482 679145 |
| Email Address | sales@mrtsos.com |
| Date of Issue | June 2021 |
| Issue Number | 2 |
| Description | The sMRT Shield is a personal Locating device. |

Once armed the device is designed to activate automatically in the event of a man overboard incident.

Following activation, the sMRT Shield transmits distress alerts on 406MHz and continuously updates AIS position information for pinpoint tracking.

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

SECTION 2: SPECIFICATION

GENERAL

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|------------------------------------|---|
| Battery Type | 9.0V 1650mAh Lithium Manganese Dioxide (LiMnO ₂) |
| Battery Life | Minimum of 24 hours at -20°C. |
| Battery Shelf Life at +20°C | 5 years |
| Operating Temperature | -20° to +55°C (-4° to +131°F) as per IEC 60945 |
| Storage Temperature | -30° to +70°C (-22° to +158°F) as per IEC 60945 |
| Dimensions | W:60mm H:111mm D:38mm |
| Weight | 250g |
| Durability | IEC Standard 60945 |
| Strobe Light | 20 candela, 170 degree dispersion, flash rate once-per-sec |
| Environmental Resistance | IP68 |
| Mounting Options | Designed to integrate with a MRT sMRT SOLAS approved life jacket |
| Self ID | ITU-R M.585 Compliant factory programmed freeform Maritime Identity with 972 prefix |
| Compass Safe Distance | 0.5m (1.5ft) |
| Alerting Radius | Worldwide coverage |

AIS/VHF TRANSMITTER PACKAGES

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|-------------------------------------|---|
| Antenna type | Vertically polarised |
| AIS Tx Power Output | Nominal 1W EIRP |
| 121.5MHz Power Output | 25-100mW PEP |
| VHF Transmission Frequencies | 121.5MHz 406.040 MHz ±1KHz AIS Channel 1: 161.975MHz AIS Channel 2: 162.025MHz 5W Typical AIS, 406MHz and 121.5MHz |

CONTROLS AND OPERATION

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| Automatic Activation | On PFD inflation |
| Automatic Water Activation | After 2 seconds of water sensor immersion |
| Manual Activation | 3 stage activation |

GPS RECEIVER

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| GPS Receiver Type | 66 Channel |
| TTFB (Time to First Fix) | 30 seconds (typical) with nominal GPS signal levels -130dBm |
| Subsequent GPS fixes | Minimum of 6 per minute |

AIS ALERTS

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| AIS | Within 30 seconds of GPS position acquisition |
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APPROVALS

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| European | CE approved EN 303 098 V1.2.1 & draft EN 303 132 |
| US APPROVALS | FCC ***** RTCM STANDARD 1190.1 COSPAS-SARSAT T.001/T.007 class2, RTCM SC110 STD |