WESCOM GROUP

sMRT V300-X1

The sMRT V300-X1 is an ATEX Zone 1, commercial grade, man overboard (MOB) device incorporating AIS, VHF DSC, and 121.5MHz technologies. It features water activation technology, audible and visual indicators, and offers multiple fixing options for life jacket integration.

With an increased signaling range and Class M compliance, the sMRT V300-X1 ensures accelerated alerting and reliable location tracking over extended distances, improving the effectiveness and efficiency of rescue efforts during a man overboard incident.

VHF DSC

VHF DSC

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

121.5 MHz

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Features a low power homing signal to assist local and aerial rescue efforts

AIS

AIS

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

DUAL GNSS

Dual GNSS

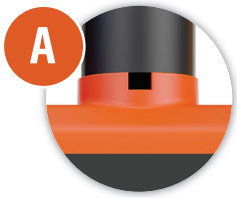
Combines both GPS & Galileo GNSS receivers for accelerated detection

Class-M

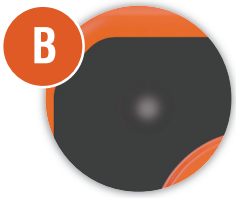
Class-M

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

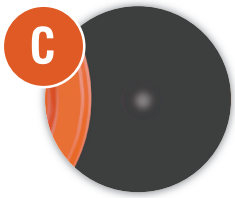
PRODUCT FEATURES



WATER ACTIVATION
Device will activate when immersed in water for 2 seconds



STROBE LIGHT
High powered strobe light to aid visual identification



COLOURED LEDS
LEDs change colour dependent on status of beacon

ARMING DOOR
Swing door to prevent false arming and activations

GNSS ZONE
Equipped with dual GNSS for accurate location

WATER SENSOR
Weighted water sensor lead ensures immersion in water

Zone 1 Approved
Approved for compliant use in hazardous ATEX Zone 1 environments

Water Sensor Lead
A weighted water sensor lead ensures that the device will automatically activate when worn inside a life jacket

Five Year Battery Life
A five year battery life with optional annual recertification available. 1 year warranty from date of purchase

Test Functionality
Manual based testing provides a status check on power and functionality

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

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

Clipping System
Multiple fixing systems allows easy attachment and integration with life jackets

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

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.

GENERAL

BATTERY TYPE	9V Lithium battery
MINIMUM ALERTING PERIOD	Minimum of 12 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 60945:2002
STORAGE TEMPERATURE	-30° to +70°C (-22° to +158°F) as per IEC 60945:2002
DIMENSIONS	207mm (H) (including antenna) x 59mm (W) x 23mm (D)
WEIGHT	275g
ENVIRONMENTAL	EN 303 132 V2.1.1 clause 7, IEC 60945:2002
STROBE LIGHT	30 candela, 170 degree dispersion, flash rate 12 /minute
ENVIRONMENTAL RATING	IP68 to 10 metres depth
MOUNTING OPTIONS	Designed to integrate with a SOLAS approved life jacket
SELF ID	ITU-R M.585-9 Compliant factory programmed freeform Maritime Identity with 972 prefix
COMPASS SAFE DISTANCE	0.5m (1.5ft)
ALERTING RADIUS	Typically 5NM

AIS/VHF TRANSMITTER PACKAGES

AIR BAND FREQUENCIES	121.500 MHz
ANTENNA TYPE	Vertically polarised
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

CONTROLS AND OPERATION

AUTOMATIC WATER ACTIVATION	After 2 seconds of water sensor immersion
MANUAL ACTIVATION	Once armed, press and hold the activate button

GPS RECEIVER

GNSS RECEIVER TYPE	GPS and Galileo
TTFF (TIME TO FIRST FIX)	25 seconds (typical) with nominal GPS signal levels -130dBm
GNSS UPDATE RATE	Every minute

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 received or the battery expires
FIRST DSC GPS DATA ALERT SENT	Immediately after GNSS position acquired

APPROVALS

RED ARTICLE 3.1 (A)	IEC 62368-1:2018 EN IEC 62368-1:2020+ A11:2020 CSA/UL 62368-1:2019 AS/NZS 62368-1:2022
RED ARTICLE 3.1 (B)	EN 301 843-8 Draft: V1.1.1_0.0.5 EN 301 843-1 Draft: V2.3.1_0.0.8 EN 60945:2022
RED ARTICLE 3.2	EN 303 132 V2.1.1 IEC 63269:2022 IEC 61108-1:2003 EN 302 152-1 V1.1.1 EN 303 098 V2.2.1
RED ARTICLE 3.3 (G)	RTCM 11901.2:2022
ATEX	IECEx: IEC 60079-0:2017; IEC 60079-11:2023; IEC 60079-18:2014+AMD1:2017 ATEX: EN IEC 60079-0:2018; EN IEC 60079-11:2024; EN 60079-18:2015+A1:2017