Pharos Marine Automatic Power

BROCHURE

PMB1800RM

1.80m Navigation Buoy

OVERVIEW

PMB1800RM is an outstanding mid-range buoy suitable for near shore/estuary locations. Consisting of 2 piece virgin MDPE, UV stable float sections filled with closed cell, water resistant polyurethane foam and built around an integral steel core incorporating both 2 x lifting and mooring eyes for optimum strength and reliability. The Modular superstructure is manufactured from 'twin skin' design virgin, UV stabilized MDPE offering strength and lightweight characteristics. The 'flat' base of the buoy makes it easy to handle and store both on land and on deck prior to installation and the modular, flexible design is adaptable to a wide range of Navigation Lights, Day/Top marks and solar panels etc.

The standard range is augmented by bespoke products meeting your exact specifications or specialist needs. The flat base design of all products in the range ensures buoys stay upright in low-tide situations, are easily stored on vessel deck prior to installation and the galvanized steel core ensures absolute stability in rough seas and product integrity.

The buoys are built to last in extreme conditions. Even if the skin is punctured, the close cell foam filled polyethylene hull sections negate water absorption and keep it fully operational. This makes the range especially good for housing and protecting technical equipment such as monitoring technology.

The range has been designed for ease of installation and transportation. They can be shipped in sections and assembled or dissembled quickly on-site.

The design of our Rotationally Moulded Polyethylene Buoys is meant to give customers the best of both worlds. They are lighter than steel, provide excellent performance, longevity and cost less. Maintenance is easy and a lower overall cost and a wide range of competitively priced accessories are available.

KEY FEATURES

- Two piece float section
- Outstanding mid-range buoy
- Excellent stability
- Does not require painting
- Low maintenance
- Modular system
- Wide range of navigation lights accepted
- Each section can be colored to suit IALA specifications

OPTIONAL FEATURES

- Mould in Graphics
- Day marks
- Racon
- Monitoring Systems (AIS, GSM, GPS)
- Solar panels, Batteries

PHYSICAL SPECIFICATIONS

Diameter (mm / inches)	1800 / 70 7/8"
Overall Weight (kg / lbs)	400-800 / 881-1763
Adjustable Ballast (kg / lbs)	160 / 352
Overall Height (mm / inches)	4850 / 190 15/16"
Maximum Focal Plane Height (mm / inches)	1800 to 3200 / 71 to 126
Nominal Freeboard (mm / inches)	370 / 14 9/16"
Nominal Draft (mm / inches)	940 / 37 0/0"
Minimum Freeboard (mm / inches)	150 / 5 7/8"
Maximum Draft (mm / inches)	1160 / 45 11/16"
Gross Buoyancy (kg / lbs)	1720 / 3792
Reserve Buoyancy (kg / lbs)	860 / 1896
Submergence (kg / cm, lbs/ inch)	24.0 / 134.4
Visual Area (Without Day mark) (m^2 / ft^2)	2.30 / 25.75
Visual Area (With Day mark – CAN Shape) (m^2 / ft^2)	2.72 / 29.27
Visual Area (With Day mark – CON Shape) (m^2 / ft^2)	2.68 / 28.84
Minimum Mooring Weight (kg / lbs)	145 / 320
Maximum Mooring Weight (kg / lbs) (To Maintain Minimum Freeboard)	510 / 1125

CONSTRUCTION

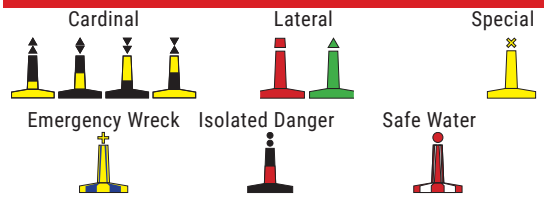
Float	Rotationally moulded UV stabilized virgin polyethylene, MDPE, 11mm thick filled with closed cell polyurethane foam.
Super structure material	Rotationally moulded twin skin design MDPE, virgin polyethylene 9mm thick
Mooring Assembly	Galvanized Steel
Radar Reflector	Echomax
Colours	As specified per IALA recommendations

SUGGESTED MOORING

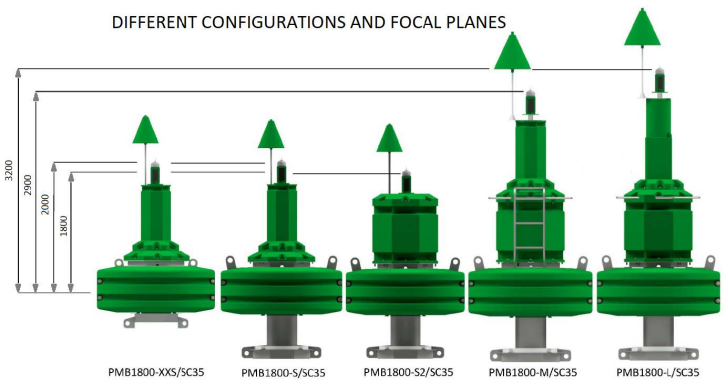
Current speed up to 2 knots		
Water Depth (m)	**Chain Length (m)**	**Chain Size (mm)**
8 - 12		28
13 - 20		22
21 - 30	2x Water Depth	19
31 - 40		16
41 - 60		16
Current speed 2 - 4 knots		
Water Depth (m)	**Chain Length (m)**	**Chain Size (mm)**
8 - 12		28
13 - 20		22
21 - 30	2.5x Water Depth	19
31 - 40		16
Current speed 4 - 6 knots		
Water Depth (m)	**Chain Length (m)**	**Chain Size (mm)**
8 -12		28
13 - 20		22
21 - 30	3x Water Depth	19
31 - 40		16
Sinker Weight		
Concreate	900 kg - 2600 kg	
Cast Iron	600 kg - 1730 kg	

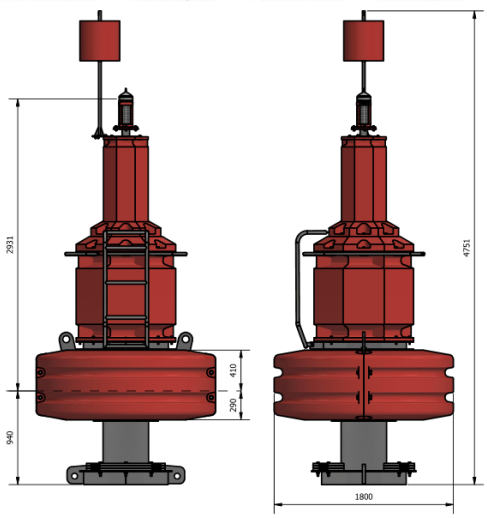
**All values are subject to change without notice.*

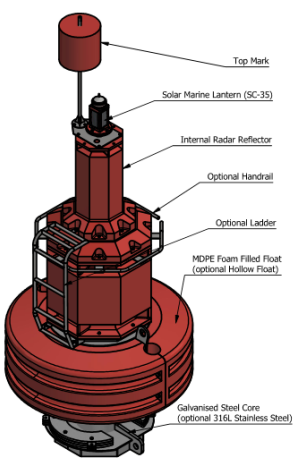
BUOY CONFIGURATIONS



DIFFERENT CONFIGURATIONS AND FOCAL PLANES







Note :

- Wind speed considered maximum 50 knots
- When ordering mooring specify the site conditions
- Shallow water installation may require heavier chain that suggested for required Stability, depending upon site conditions
- Please note that this is a guide only as the mooring arrangement is an integral part of the system which an affect the overall performance and reliability of the buoy

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