



# SmartDock® Display Board



## Main Jetty Display Board

The Docking Aid System (DAS) Main Jetty Display Board provides speed and distance, and optional angle, information to vessels. The Display Board can be viewed from the bridge of the vessel during day or night conditions.

The display board provides the pilot & vessel master with direct feedback of speed and distance (relative to the fender/berthing line) computed by the SmartDock® system from fixed lasers.

The Display Board can be installed on jetties using a variety of mounting options including fixed or rotating configurations. The fixed mounting options are available in 3 standard heights of 1500mm, 2000mm, and 6000mm. Electric or manually rotating mounting options allow the display board to be positioned for optimal viewing from the vessels' bridge.

**Docking Aid Systems provide essential feedback and event recording for operators to enhance terminal and vessel operational safety and efficiency. Reliability of the SmartDock® System is field proven through its installation and use in hundreds of marine terminals world wide.**



# Display Board

SPECIFICATIONS	
Size (HxWxD)	1800 x 3000 x 500mm
Weight	~600kg without pedestal
Construction	Display Board Enclosure: 304 stainless steel Windows: Toughened Safety Glass Surface Treatment: Powder Coated to APO Grey Scylla or equivalent
Display Details	Bow and Stern distance 3.0 digits (displays 0.0 to 19.9m, 20 to 200m) – Metric 3.0 digits (displays 0.0 to 31.9ft, 32 to 660ft) – Imperial Bow and Stern speed 2 digit (displays 0 – 99cm/s) – Metric 2 digit (displays 0 – 99ft/min) – Imperial
Warning Lights (Bow & Stern)	2 Red, 2 Amber, 2 Green Red – exceeding high high speed limit Amber – exceeding high speed limit Green – below high speed limit
Display Type	Digit type 7 segment electro mechanical flapper vane, flouresent yellow.
Digit Size (HxW)	450 x 250mm
Digit viewing angle	+/- 35° (Horizontal & Vertical)
Illumination	LED or Fluroscent
Update rate	1Hz
Display Resolution	Distance: 0.1m up to 20m & 1m thereafter Speed: 1cm/s
Visibility	> than 200m in normal weather conditions, day or night.
Environmental Protection	Suitable for installation in an outdoor marine environment. Electrical equipment inside cabinet: IP66
Design Wind Speed	Upto 30m/s. For higher wind speed see options.
Power Requirements	110VAC or 220VAC 50/60Hz, <0.5KW.
Area Classification	Suitable for outdoor non hazardous areas. (Hazardous area - see options)
Operating Temperature	-15° to +55°C
Relative Humidity	95%
OPTIONS	
Vessel Angle Display	Additional Display for displaying vessel angle relative to the Fender (Berthing) Line Display Range: +/- 90° Display Resolution: 1°
High Wind Protection	For wind speeds exceeding 30m/s, up to a design maximum of 90m/s (175knots), Display Board tie down and window shutters are available for the various mounting options.
Hazardous Area Operation	Suitable for outdoor Zone 1 IIB + H <sub>2</sub> T4 area classification

## DISPLAY BOARD PEDESTALS

Pedestal 1500	Fixed 1500mm height Display Board Pedestal. [Base $\phi$ 825mm; Weigh 375 kg]
Pedestal 2000	Fixed 2000mm height Display Board Pedestal. [Base $\phi$ 825mm; Weigh 450 kg]
Pedestal 6000	Fixed 6000mm height Display Board Pedestal. [Base $\phi$ 825mm; Weigh 1000 kg]
Manual Rotator 2000 (Optional)	The pedestal is equipped with a sealed slew-bearing which, once positioning bolts are removed, allows the Display Board to be manually rotated (by user) into a new orientation relative to the vessel bridge. Rotation Range: +/- 90deg
Electric Rotator 2000 (Optional)	A D.O.L. motor, gearbox and sealed slew-bearing configuration allows the user to rotate the Display Board into a new orientation relative to the vessel bridge using local push- buttons or via the SmartDock® software. Suitable for installation in an outdoor marine environment. Where hazardous area operation is required, the rotator will be manufactured to comply with International hazardous area norms. Rotation Range: +/- 90deg Power Requirement : 380/415 - 440/480 VAC 50/60 Hz <1.5 kw
Construction	Structural: Mild Steel Construction (ASTM A572 Gr50) Surface Treatment: Painted to Lightbox Grey (AS2700 N33) or equivalent Hold Down Bolts: Chemset anchor, M20X260. Included.

In order to maximize the effectiveness of the display board(s), at the facility;

- The display board(s) should be located such that it can be clearly viewed from the bridge, with no obstructions from loading arms, fire hose towers and lighting.
- When selecting mounting options, maintenance safety should be assessed. Maintenance access to the display board is via four doors in the rear of the display board behind each panel.
- The angle of elevation (Azimuth) from the face of the display board to the vessels bridge is within +/- 35°. The position of the bridge can change with different sized vessels and should be considered over the full tidal range.



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