



Strainstall large digit displays have been designed for integration with berth management systems (BMS), to provide pilots with information on distance, speed and berthing angle (optional), and speed alarms as a vessel approaches its mooring. The numbers are displayed in an ergonomic heads-up manner and are visible at distances in excess of 300 metres. They have been specifically designed for high visibility under all light conditions.

Available for both safe and hazardous areas, the units can be customised to site requirements (e.g. distance display only, speed display only, enclosure material etc) and can be shared between berths if required, subject to location suitability and integration with Strainstall BMS.

- **Standard 450mm digits**
- **Indicates increasing/decreasing approach speed**
- **Integrated illumination for low light viewing**
- **Protected for exposed installations**
- **Can be supplied on plinth with manual or electric remote control**
- **Can be supplied with access platform**
- **Rugged and reliable**
- **Certified for hazardous area use (optional)**
- **RS485 2 wire data connection**



5 Parameter Display



4 Parameter Display

## Typical Specification

Parameter	Data
Displayed Data	Distance - 0-200m
	Speed - 0-99cm/s
	Berthing Angle - +/-15°
	Speed Alarm - Red/Amber/Green Indicators
	Approach Rate - Up/Down Arrows
Digit Type	Reflective Flipper
Digit Size	450mm
Data Protocol	RS485 (2 conductor)
Supply Voltage	110/220VAC 1 phase
Display Certification (Optional)	II2G EExsm IIT6 T <sub>amb</sub> -20 to +60 °C
Light Certification (optional)	To site requirements
Mounting (optional)	Pedestal or platform
Rotation (optional)	+/- 90° (or to site requirements)
Rotation Method	Manual (remote electric option)
Display Size - 4 Parameter	3000(w) x 1400(h) x 550(d) mm
Display Size - 5 Parameter	3000(w) x 2500(h) x 550(d) mm
Sealing	IP66
Display Material	Stainless steel or marine grade aluminium alloy options
Painting Option	Front - black powder coated, Rear - white powder coated (or to site requirements)
Plinth Height	To site requirements (typically 1.5m)
Platform Size	To site requirements

## Siting Considerations

The display location must be chosen in consideration with a number of factors:

- Height to ensure visibility from the ship bridge
- Vessel approach route
- Moored port to, starboard to or either
- Obstructions which may block the line of sight

Apart from the height, the rotational position of the display must also be considered to get the best visibility possible during docking approach. The display itself may be rotated over +/- 90 degrees (or to site requirements). If however, the ship is moored alongside the jetty and the display is close to the jetty fenders, then the optimal visibility can be achieved with the display at 70-80 degrees. It will also still be visible if the ship approaches from the side of the jetty, but if the ship approaches at right angles, then this angle may be too acute, even when taking into account the ship length. Conversely, if the display is set too far back from the fenders, it may be obstructed by other high structures, such as loading arms. Careful consideration to the display position is therefore required.

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