

EMIS - Dual Axis Digital Inclinometer

IN ACCORDANCE WITH IMO 363(92)



➤ Digital Inclinometer

- IMO 362(92)
- ISO 19697(2016)
- Roll peak hold value

➤ Dual Axis (Roll & Pitch)

➤ Support for performance analyses

➤ Optional trim measurement for loading operations

Dual Axis Digital Inclinometer (EMIS) allows measurement of ship motions along her longitudinal (roll) and transverse (pitch) axes. EMIS can be used as stand-alone system with a help of dedicated HMI (Human Machine Interface) or integrated with parent system (e.g. SeaPerformer for performance analyses). EMIS provides separate roll signal for external systems (e.g. VDR system).

FUNCTIONS

Roll motion:

Full compliance with IMO 362(92) & ISO 19697(2016)

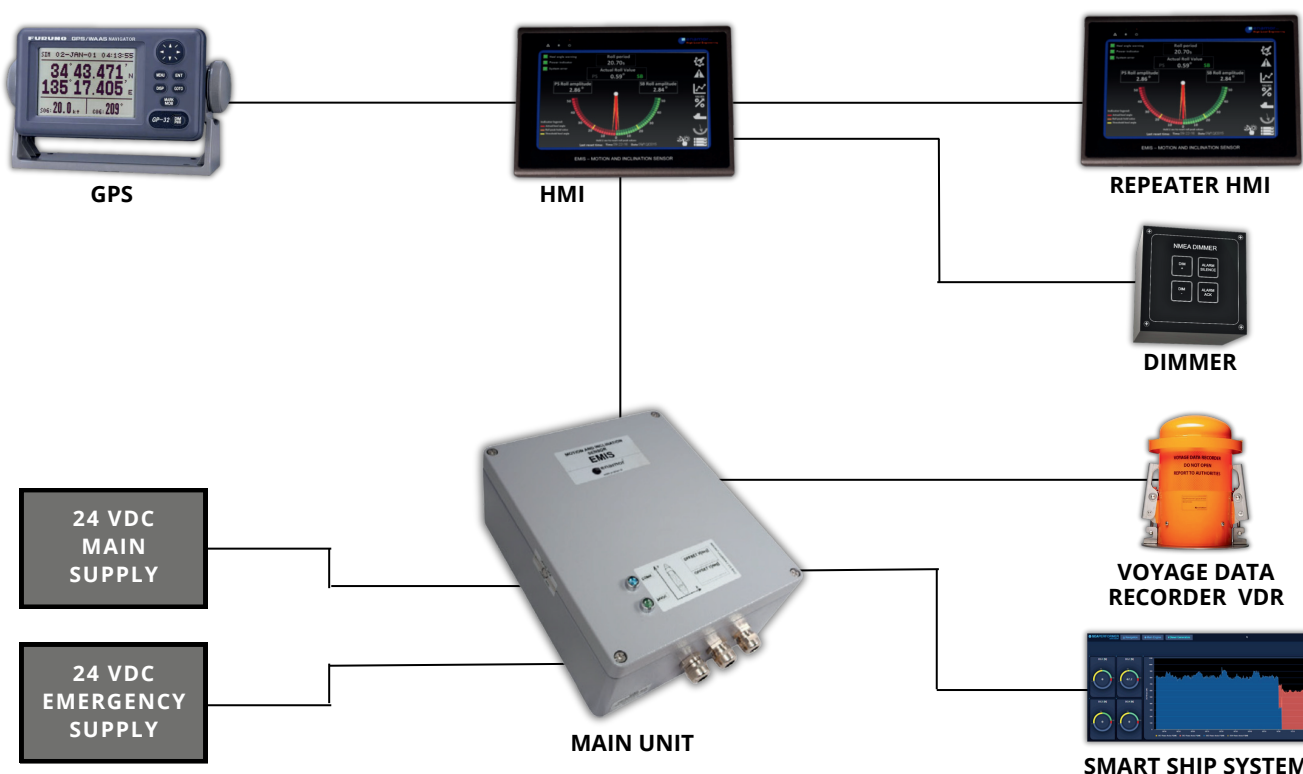
- Actual heel angle
- Roll amplitude
- Roll peak hold value
- Dedicated display
- Operational & functional alerts
- Interface to VDR and parent system
- Redundant power supply

Pitch motion:

- Actual pitch angle
- Pitch peak hold value

Additional functions:

- Remote dimmer & alert acknowledgement
- Time synchronization to GPS



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NOTES

Digital Inclinometers become mandatory equipment according IMO resolution MSC.532(107) – Solas Ch. V

Roll motion input provided to Voyage Data Recorder (VDR)

EMIS can be used for performance analyses with respect to roll and pitch motions

EMIS can be expanded by optional high accuracy trim sensor for precise loading condition measurement

Alerts generated by EMIS can be integrated with Smart Ship Solutions (e.g. SeaPerformer) and Bridge Alert Management System

TECHNICAL SPECIFICATION

SIGNALS:

➤ Roll angle

- Momentary
- Average
- RMS
- Extreme values
- Range $\pm 90^\circ$
- Resolution 0.01°
- Roll amplitude
- Range 4-40s
- Resolution 0.5s

➤ Pitch angle

- Momentary
- Average
- RMS
- Extreme values
- Range $\pm 30^\circ$
- Resolution 0.01°

➤ Optional trim measurement

- Momentary
- Range $\pm 10^\circ$
- Resolution 0.001°

MAIN UNIT:

- Dimensions: 230x280x150mm
- Weight: ~5kg
- Power supply: 24VDC
- Power consumption: 400mA

HMI OPERATING PANEL:

- 7" TFT Contrast ratio 500:1
- Resolution: 800x480px
- Weight: ~1kg
- Backlight: LED (on/off)
- Flush mount or adjustable enclosure
- Power supply: 24VDC (via Main Unit)
- Power consumption: 400mA