

## Inclinometer Sestrel

IMO performance standard MSC.363(92) fully approved by Germanischer Lloyd (DNV GL)

Sestrel Electronic Pitch & Roll (EPR) Inclinometer is a heel and pitch measuring system. It is a robust and accurate instrument and fully compliant with IMO recommendations.

Hence it displays true heel and roll period in high accuracy. The standard display screen shows the actual heel angles at port and starboard side in red & green. A second display screen is available for Escort Tug operations. The Tug Master is able to monitor heel angles. In the event of exceeding preset safe levels, will visual and audible alarm be signalled for corrective action to be taken.

The heel angle zones are: Green (safe) Amber (action required) and Red (immediate action required).

All zones are Tug Master adjustable.

The Escort Tug operating mode is designed to meet BV rules NR 467 - July 2017.

Sestrel Inclinometer measures and displays:

- » Pitch angle
- » Roll period
- » Amplitude (port and starboard)
- » Acceleration indication
- » Trend plots display the heel angle for the last 3 minutes and the roll amplitude for last the 30 minutes

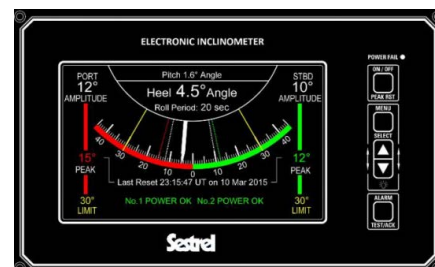
All inclinometer units are identical (Master/Slave) and provide selectable standard and reverse display formats as well as several configuration options.

Sestrel Inclinometer is supplied with all necessary components and can be easily installed and commissioned by the ship's personnel.

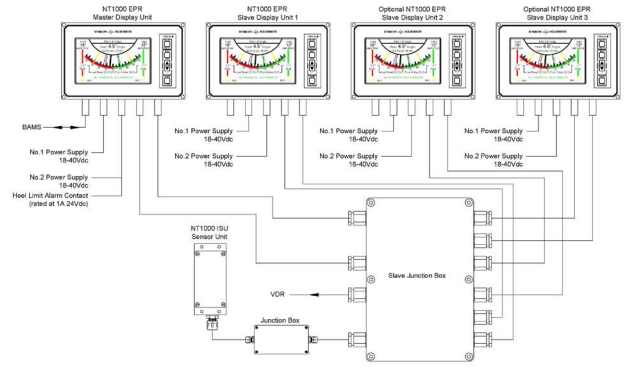
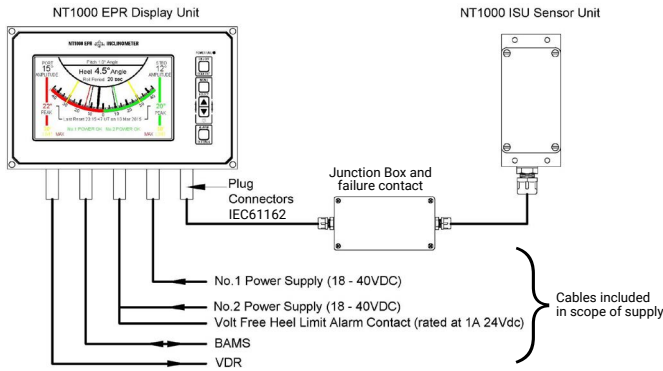
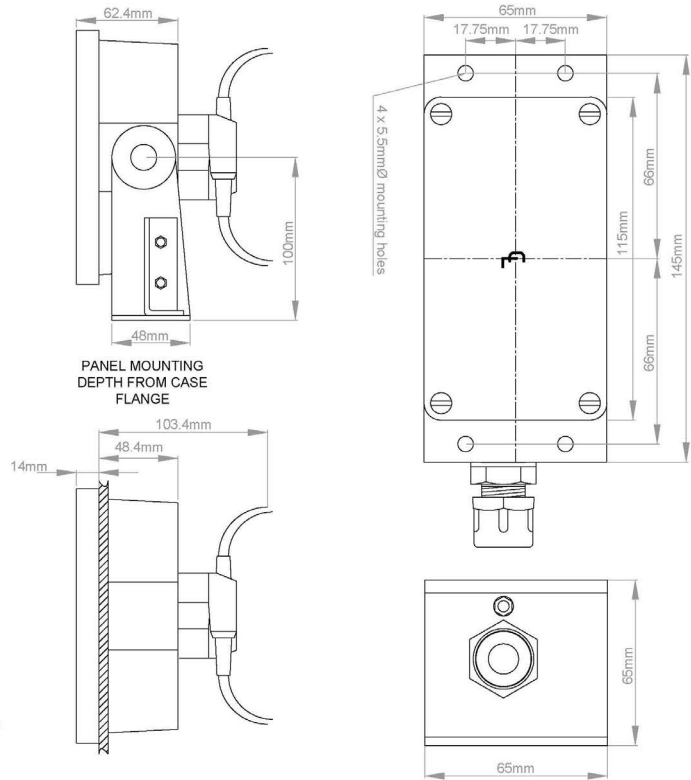
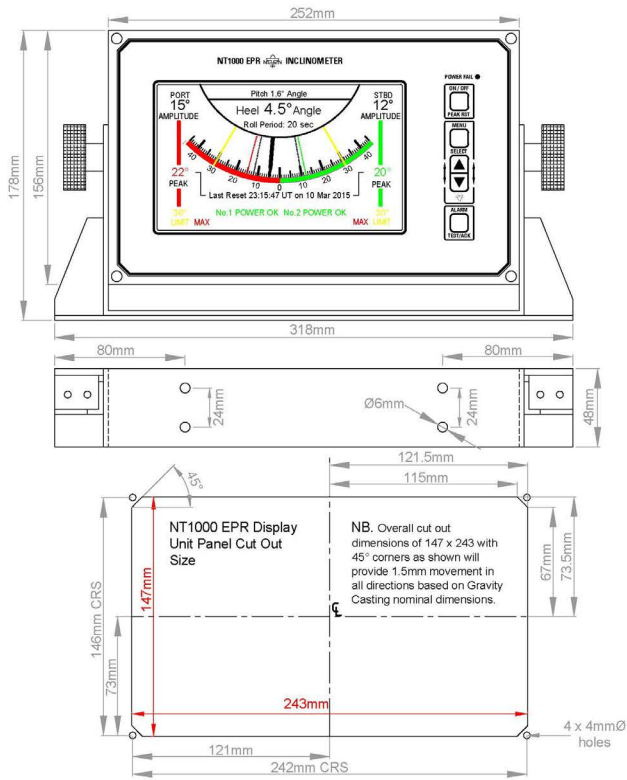
Measuring range	±180° for heel, ±90° for pitch angle
Digital display resolution	0.01° for angle, 0.1 s for time measurements
Analog display range for heel	±45°
Roll period display range	4...40 s
Angular accuracy	±5% of measured value or ±1°
Time accuracy	±5% of measured value or ±1 s

Trend plot	3 min for heel angle and 30min for roll amplitude
Display	7 inch color LCD with 800x480 resolution
Communication interface	IEC61162-1/-2 4800 Baud 38400 Baud

Supported sentences	ALF, ALC, HBT, TXT ACN, TXT
Main/emergency supply voltage	24 V DC, 1 A max (12 VA max)
Operating temperature	-15...+55°C
Net weight	2.2 kg (display unit), 0.35 kg (sensor unit)



Current heel angle current pitch angle, max port and starboard heel for standard screen and tug boat screen.



Optional: support of max. 3 slave displays

SCOPE OF SUPPLY

- EPR display unit
- desktop mounting kit and flush mount frame
- sensor unit with 3 m cable
- All cables are provided with 3 m.

APPROVALS

- IMO Resolution MSC.363(92) Performance standards for electronic inclinometers - maritime navigation and radio communication equipment and systems:
- IEC 60945, environmental tests
- IEC 61162-1, -2 data interchange
- protection class
- control unit (display NT1000 EPR): IP 61
- sensor unit (NT1000 ISU): IP 62