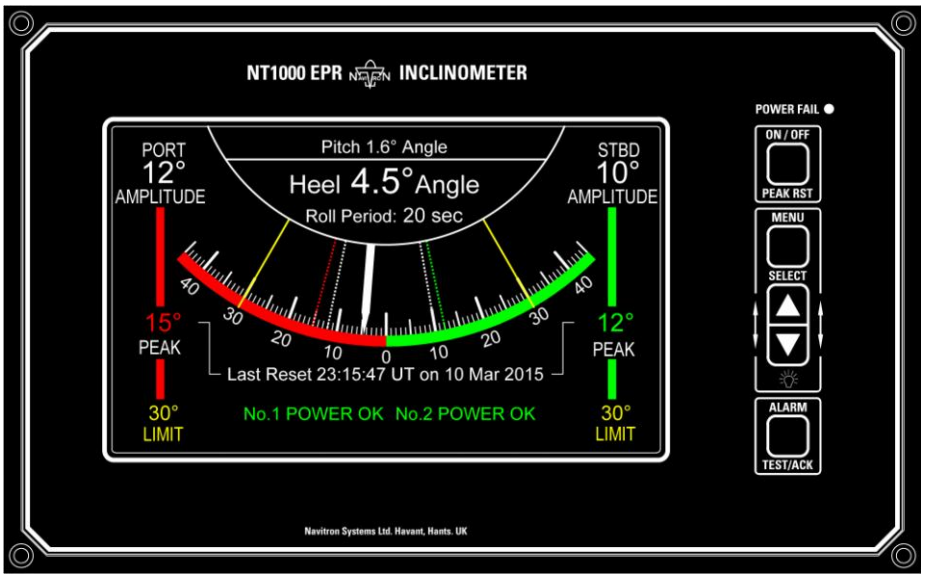
NAVITRON SYSTEMS LTD

NT1000 EPR Inclinometer

Designed and developed by Navitron Systems Ltd. to meet the requirements of MSC. 363(92) the NT1000 Electronic Pitch & Roll (EPR) Inclinometer is a robust and accurate instrument which is fully compliant with IMO recommendations to all Governments that Inclinometers not inferior to this specification should be installed to SOLAS vessels with effect from 1st July 2015.



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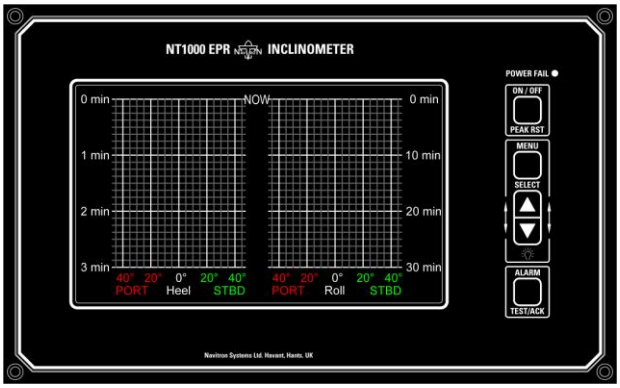
Dims 252mm x 156mm x 104mm (depth)

[The traditional mechanical "pendulum" type of heel measuring devices can provide reasonably accurate indications of angle, but this is largely confined to static situations whereas in a seaway, pendulum mass and inertia will invariably result in significant errors.

In addition to the mechanical limitations, further constraints include the inability to communicate with VDRs and BAMS (Bridge Alert Management Systems) etc.

Finally, the mechanical pendulum offers no simple solution for alerting watch personnel to the development of potentially dangerous situations geared to instability based on increasingly adverse heel angles and roll periods.]

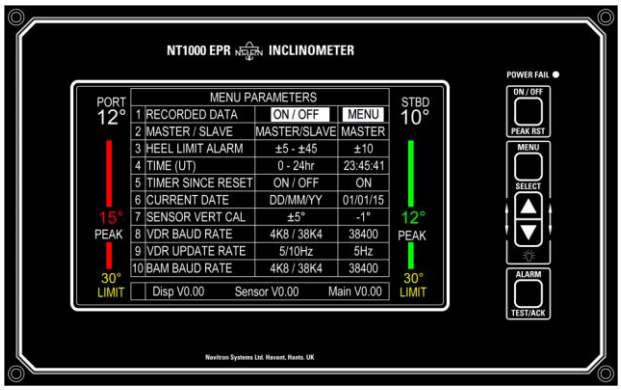
Accordingly, the NT1000 EPR is fully Type Approved by Germanischer Lloyd (DNV GL) and may be installed with single or multiple colour display unit(s) to provide real time Pitch and Roll monitors for watch personnel in addition to recorded graphical displays or roll behavior over the last 3 minute and 30 minute periods.



Serial Data input/output facilities enable the NT1000 EPR Inclinometer to send data to VDR and to communicate bi-directionally with BAMS etc.

Operator adjustable alarm levels are available via the simple to use Set Up Menu and the Heel Limit Alarm can be visually and / or audibly signalled to remote locations (Masters Cabin etc.) by volt free contacts provided within a Navitron Junction Box.

Other Set Up Parameters include Time (UT) Date and Sensor Calibration.



The Inclinometer System operates on 24Vdc supplies (Main and Back Up) and, whether installed as a single (Master) or multi display head configuration (3 x Slave heads maximum) all interconnecting cables are supplied in 3m lengths with factory fitted plugs for simple connection to the Display Unit sockets.

The Sensor Unit is a sealed, factory calibrated unit fitted with 3m of cable for connection to the Display Unit(s) via a 2 Entry Junction Box also supplied.

All Inclinometer Units are simple to mount with all display heads identical and supplied ready for foot bracket or panel mounting as required.

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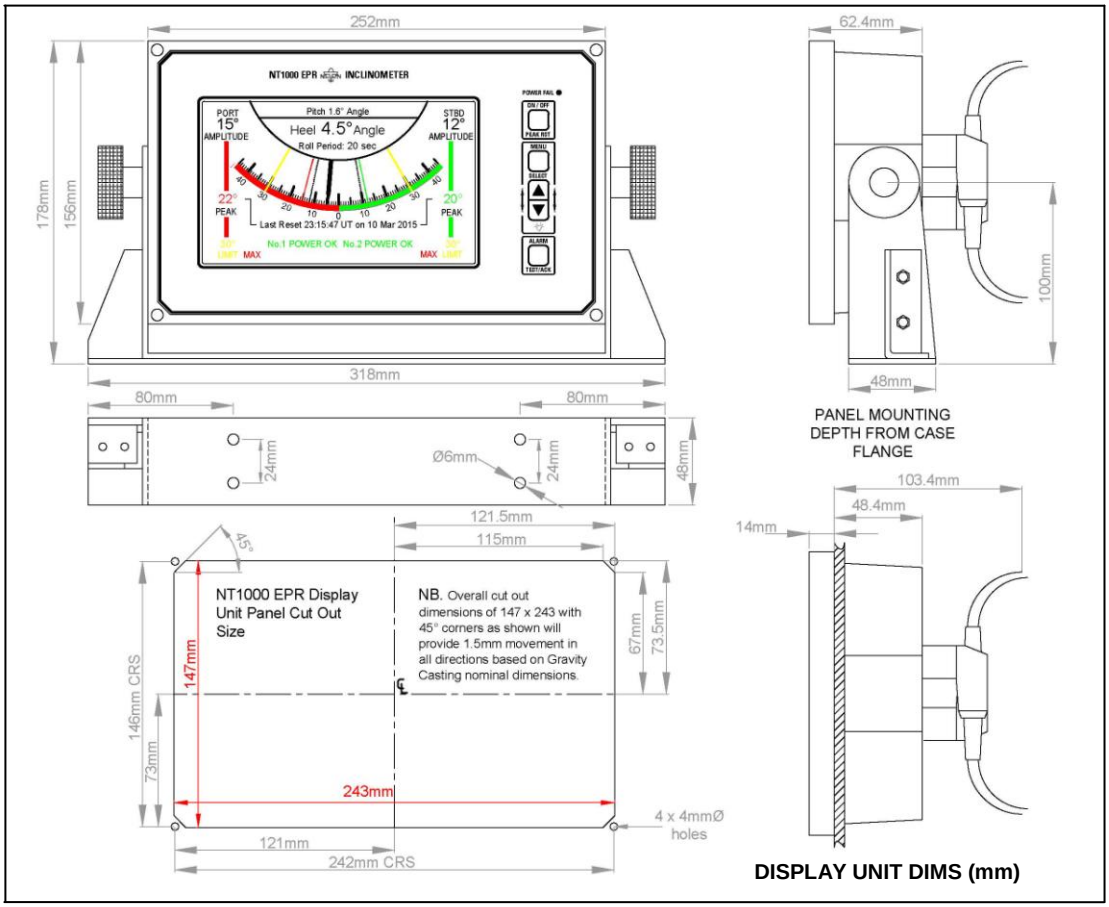
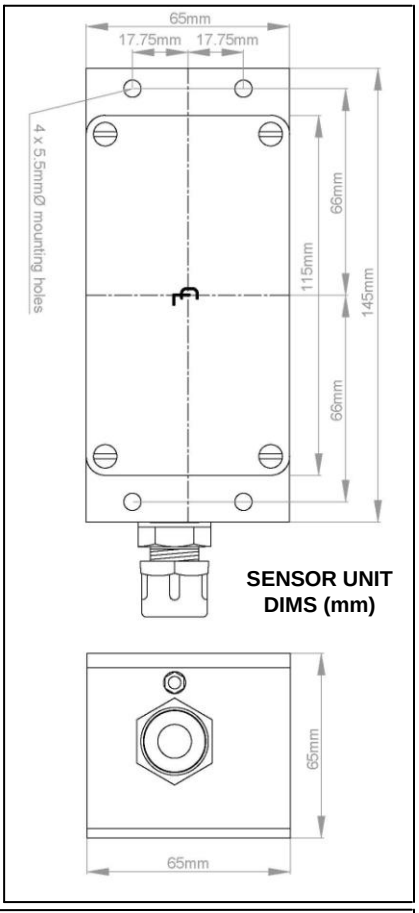
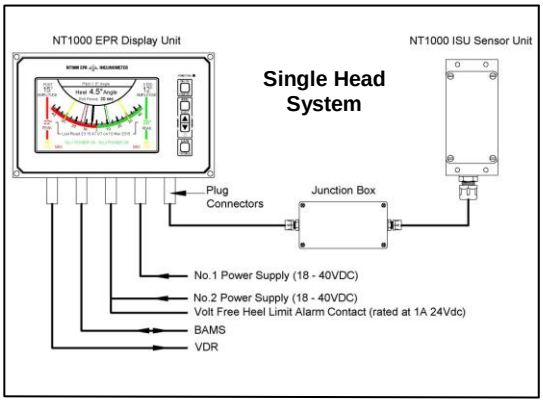
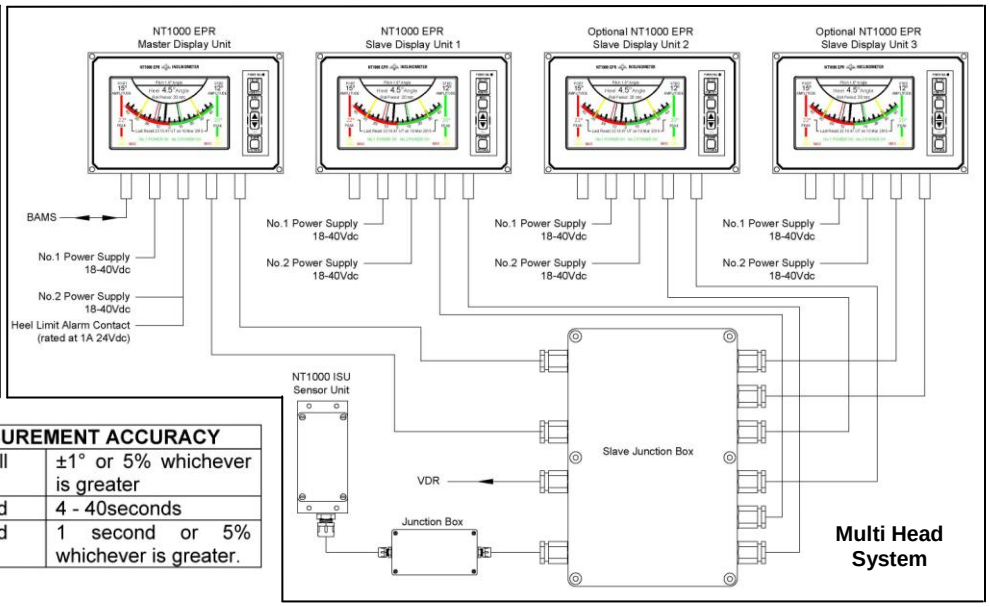


DISPLAY UNIT DIMS (mm)



SENSOR UNIT DIMS (mm)





POWER SUPPLY	
Main Power	18-40Vdc
Backup Power	18-40Vdc
Power consumption	12W max

MEASUREMENT ACCURACY	
Pitch / Roll Accuracy	±1° or 5% whichever is greater
Roll period	4 - 40seconds
Roll period accuracy	1 second or 5% whichever is greater.

BAMS SERIAL DATA INTERFACE	
IEC61162/1 OR IEC61162/2	4800 Baud
	38400 Baud
Output sentences	$IIALF $IIALC $IIHBT
Input sentences	$IIACN

VDR SERIAL DATA INTERFACE	
IEC61162/1 OR IEC61162/2	4800 Baud
	38400 Baud
Output sentences	$IIHRM $IIHBT

MECHANICAL DATA	CONTROL UNIT	SENSOR UNIT
Width	252mm	110mm
Height	156mm	65mm
Depth	50mm	55mm
Weight	2.2kg	0.3kg

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