



# NDR Nav Data Repeater



**Performance Characteristics:**

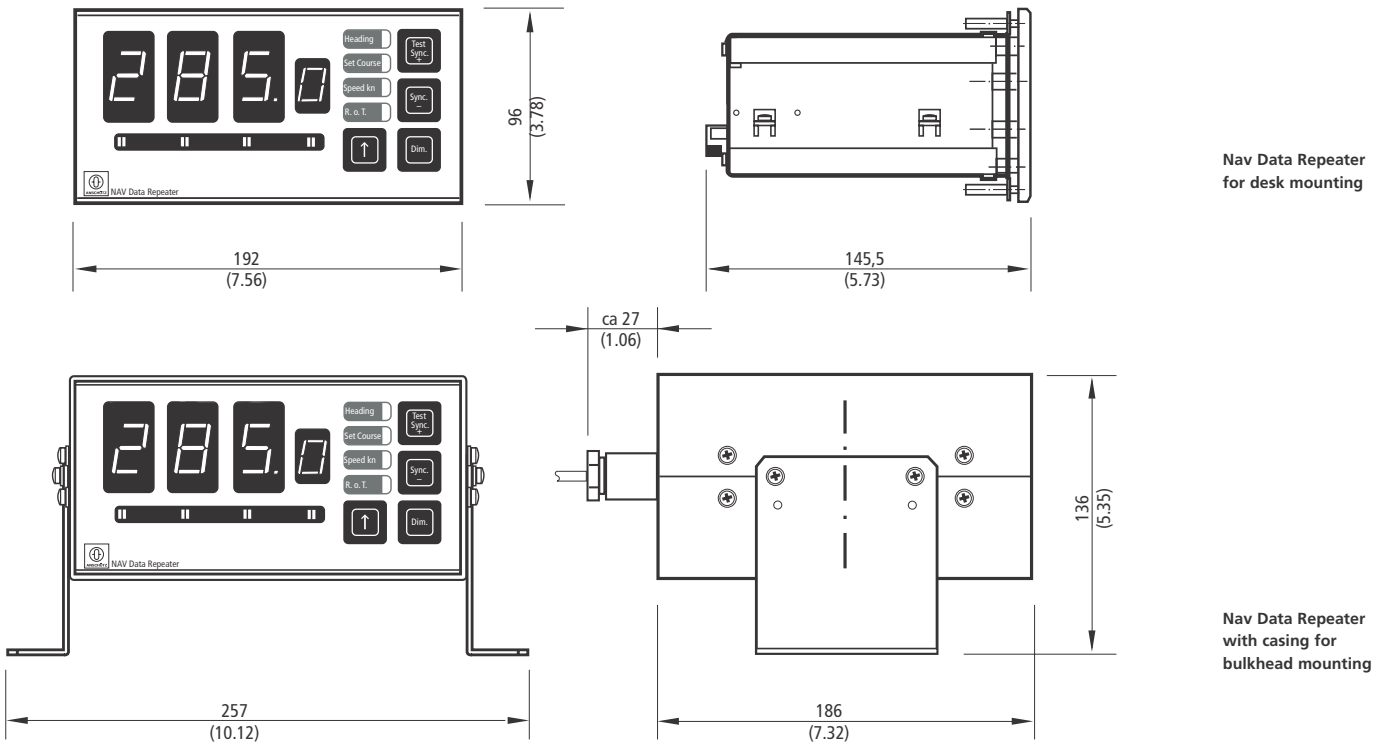
The Gyro Interface, type NDR (Nav Data Repeater) converts heading signals into synchro or step format from older gyro compasses in the NMEA 0183 standard.

For all AIS (Automatic Identification Systems) and VDRs (Voyage Data Recorders) that will not accept directly input of synchro or step signals, the gyro interface NDR is the optimal signal converter.

The gyro interface converts also speed log signals, 200pulses/nm in NMEA 0183 data. The NMEA telegrams (output) for bottom track or water track are selectable. The status input for forward and reverse vessel speed is also possible.

Supported via a serial input (NMEA 0183), the Nav Data Repeater indicates also Heading, Set Course, Speed or Rate-of-Turn. Data selection will be done by using the arrow key. Relay contacts for system failure and de-synchronisation are available. A bar graph shows the direction (port/starboard) of the Rate-of-Turn.

## Technical Data



<b>Power supply:</b>	15 - 36V DC
<b>Power consumption:</b>	12W
<b>complaint acc. to:</b>	IEC/EN 60945, IEC/EN 61162-1
<b>Type of enclosure:</b>	IP 23
<b>Weight:</b>	1.2kg
<b>Gyro input interface, analogue:</b>	
Synchro transmissions:	360:1, 180:1, or 90:1
Step transmission:	180:1 (6step/1, common plus or minus) or Anschütz-Step
Reference voltage:	7 - 120 V/ 50-500 Hz or 7 - 70 V DC
Line to line voltage:	7 - 120 V/ 50-500 Hz or 7 - 70 V DC
<b>Log input interface, analogue:</b>	200p/nm, 15 - 36 V DC or dry contacts (internal power supply for 15 - 36 V DC available)

### Input interfaces, serial:

RS 422/RS232C,  
acc. to IEC/EN 61162-1 NMEA 0183  
and older versions (1.5 - 2.0)  
Acceptable telegrams for indication only:  
Heading: \$HEHDT, \$HCHDT, \$--HDM,  
\$--HDT  
Rate of turn: \$TIROT, \$HNROT  
Speed: \$--VTG, \$--VHW, \$GPVTG  
Set Course: \$--CTS, \$--HSC

### Outputs

by using analogue input signals:

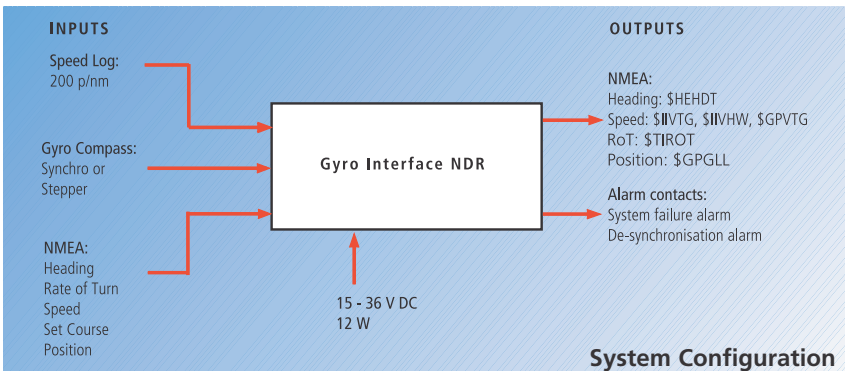
Heading: \$HEHDT  
RoT: \$TIROT  
Speed: \$IIVTG or \$IIVHW (selectable)  
Heading, Set Course, Speed or RoT

### Indication on LED

### Alarm indication

### by using serial data

Relais contact for de-synchronisation,  
acoustic alarm and power failure  
Speed: \$GPVTG  
Position: \$ GPGLL



Dimensions in mm (inch)  
Subject to alteration due to technical  
developments without notice.

**Raytheon Marine**

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