## **Raytheon** Anschütz



## Nav Data Repeater

NDR





# Nav Data Repeater

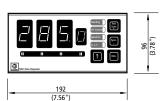
## The Nav Data Repeater is a multi functional display and converter unit

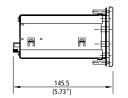
Data for heading, set heading, speed and rate-of-turn is displayed. The selection for display can easily be done with the arrow key. Heading changes are indicated by a bar graph. The speed of the indication is proportional to the rate-of-turn of the ship – a helpful indication.

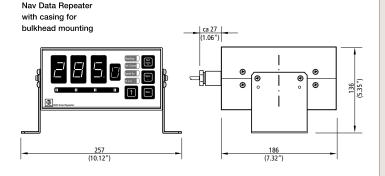
The Nav Data Repeater as converter is often required, when new equipment as AIS, VDR or also new autopilots is installed in existing system environments. Synchro and step signals from old gyro compasses are converted into serial NMEA telegrams. Synchronisation is also done directly at the Nav Data Repeater.

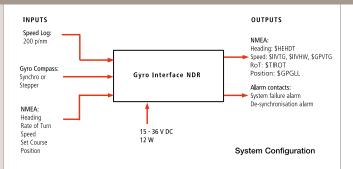
Speed log data with 200 pulses/nm including the status input for forward and reverse speed can also be converted into NMEA telegrams. The type of telegram for bottom or water track are configurable. In addition NMEA telegrams from older GPS receivers are converted into current NMEA telegrams.

## Nav Data Repeater for desk mounting









#### **Technical Data**

#### Reading accuracy

0.1°

## Supply voltage

24 V DC (15-36 V DC)

## Power consumption

max. 12 W

## Serial inputs for indication [RS232C/RS422, acc. To EN/IEC 61162-1 and versions 1.5-2.0 of NMEA 0183]

Heading: \$HEHDT, \$HCHDT, \$--HDT, \$--HDM

Rate-of-turn: \$TIROT, \$HNROT Speed: \$GPVTG, \$--VTG, \$--VHW Set heading: \$--CTS, \$--HSC

Indication of coursebus data: Heading (gyro, magnetic - if available

in coursebus) and ROT

#### Analog gyro signals for conversion and indication

Synchro transmission: 360:1, 180:1 or 90:1 Reference voltage: 7-120 V, 50-500 Hz Signal voltage: 7-120 V, 50-500 Hz Step transmission: 180:1 (6 step/degree)

Reference voltage: 7-70 V DC

Signal voltage: 7-70 V DC (common plus or minus)

Serial output as: Heading: \$HEHDT RoT: \$TIROT

## Analog log signals for conversion and indication

200 pulses/nm, 15-36 V DC or dry contacts (internal power supply for 15-36 V DC available)

Serial output as:

Speed: \$IIVTG or \$IIVHW (selectable)

## Conversion of GPS receiver telegrams

Input (NMEA versions older than version 2.3): Position \$GPGGA and

course over ground and ground speed \$GPVTG

Output (NMEA version 2.3 and newer): \$GPGLL, \$GPVTG

## Conversion of other serial telegrams

Coursebus into NMEA \$HEHDT and \$TIROT (if available in

course bus)

NMEA \$HEHDT 4800 Bd into \$HEHDT 9600 Bd

## Alarms

Relais contact for de-synchronisation, system failure alarm

### General data

Permissible ambient temperature Operation: -15°C to +55°C Storage: -25°C to +75°C

## Type of enclosure acc. to EN/IEC 60529

IP23

#### In accordance with

EN/IEC 60945 EN/IEC 61162-1