

# Nav Data Repeater



# 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. On the display a selection of the required data can easily be done with the arrow key. Heading changes are indicated by a bar graph. The ship's rate-of-turn is displayed in real-time – a helpful indication. As a converter the Nav Data Repeater 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 is configurable. In addition NMEA telegrams from older GPS receivers are converted into current NMEA telegrams.

## TECHNICAL DATA

### Reading accuracy

- 0.1°

### Supply voltage & power consumption

- 24 V DC (15-36 V DC)
- 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 \$GPGGGA and course over ground and ground speed \$GPVTG
- Output (NMEA version 2.3 and newer): \$GPGLL, \$GPVTG

### Conversion of other serial telegrams

- Course Bus 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

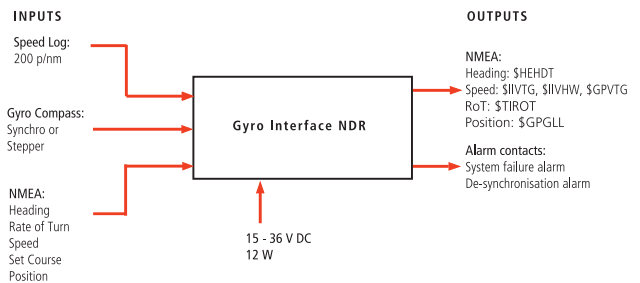
### Type of enclosure acc. to EN/IEC 60529

- IP23

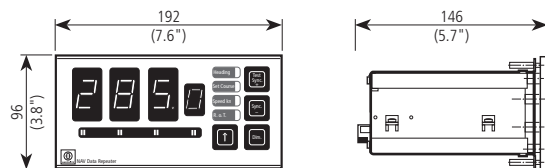
### In accordance with

- EN/IEC 60945
- EN/IEC 61162-1

### System configuration



### Nav Data Repeater for desk mounting



### Nav Data Repeater with casing for bulkhead mounting

