

# Standard 30 MF

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# Maintenance-free gyro compass

## Standard 30 MF

Standard 30 MF is a maintenance-free gyro compass and attitude reference system based on Hemispherical Resonator Gyros for superior reliability and accuracy over lifetime.

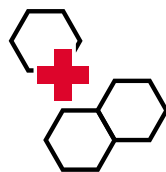
### Key Benefits



#### High accuracy and reliability

Standard 30 MF uses superior hemispherical resonator gyro technology, known in the maritime market for more than 10 years.

- Ultra-robust design, high accuracy over lifetime without drift
- Settling time of only one hour, settles at rough sea states
- Provides heading output even if speed and latitude input fails – a significant advantage over other compass systems



#### Advanced functional range

Standard 30 MF provides a multitude of features and is easy to integrate into the most varied system environments.

- Heading sensor and MRU in one (roll and pitch output), thus reduction in investment and maintenance cost
- Webserver functionality for configuration, software update and diagnosis – no need of proprietary tools
- Approved as gyro compass for high-speed craft and rate-of-turn indicator



#### Worry-free operation

State-of-the-art design and maintenance-free operation make Standard 30 MF perfect for demanding newbuilding and retrofit projects.

- Superior and durable HRG technology (MTBF >100,000 h)
- High cost-effectiveness over lifetime, free of maintenance
- Less complex than other strap-down compasses (such as FOGs), resulting in long lifetime and high long-term stability

### Learn more



Steering repeater



Bearing repeater



Digital repeater



### Modular Anschütz gyro compass portfolio

Visit the website to learn more about our modular range of gyro compasses, typical system configurations and related accessories such as repeaters.

[www.raytheon-anschuetz.com/gyro-compasses](http://www.raytheon-anschuetz.com/gyro-compasses)

## HRG technology for long-term stability

Standard 30 MF uses Hemispherical Resonator Gyros (HRGs) as angular rate sensors. HRGs are vibrating resonator gyros consisting of only a few elementary pieces: a single resonator and electronics for resonator control and vibration sensing, assembled in a miniature hemisphere and decoupled from the outside equipment. This simple design makes the gyro extremely reliable with no wear and tear and no need for maintenance.



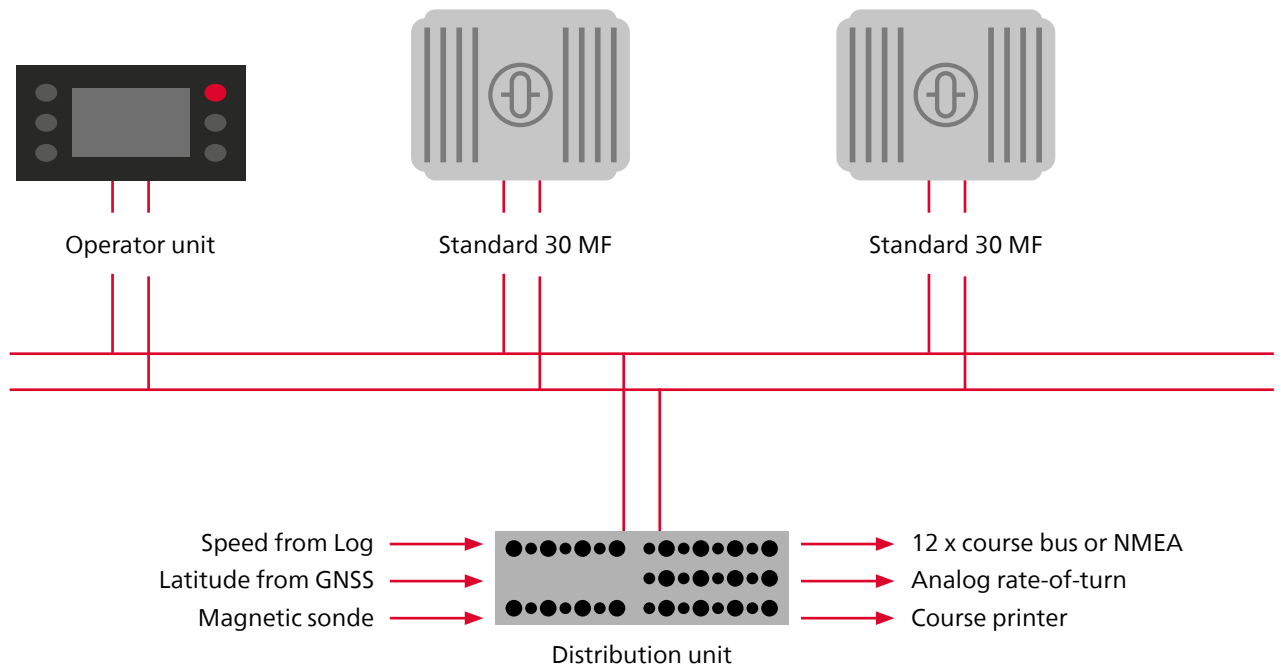
Visit our website for Standard 30 MF gyro compass and learn more about how we can offer you the perfect technical solution.

[www.raytheon-anschuetz.com/standard30-mf](http://www.raytheon-anschuetz.com/standard30-mf)

## Standard 30 MF - from a single gyro compass to a heading management system

Standard 30 MF can be used standalone and as part of a heading management system. The heading management system allows to connect up to 3 gyro compasses (any combination between Standard 22 NX and Standard 30 MF is possible) and integrates a magnetic com-

pass or GNSS compass. With full redundancy in distribution compliance to demanding class notations such as DNV NAUT-OSV/OC/AW, LR IBS or ABS NIBS is achieved. Standard 30 MF can also be integrated in many existing gyro compass systems.



## Main Features

- Integration of up to four compasses (up to three gyro compasses, or two gyros and a GNSS THD, plus a magnetic compass)
- Integration of existing third party compasses
- CAN bus based real time network with up to 400m cable length
- Heading monitor
- Manual or automatic switch over of compasses
- Automatic correction of magnetic heading by deviation and variation (if the GNSS receiver provides magnetic variation)

## Accuracy

- Heading 0.25° secLat, RMS
- Roll & pitch 0.2° RMS
- Rate-of-turn 0.5°/min plus 5% of the indicated rate-of-turn
- secLat.=1/cosLatitude

## Supply voltage & power consumption

- 24 V DC (10 – 36 V DC)
- 24 W

## General data

Permissible ambient temperature

- Operation -20° C to +60° C
- Storage -30° C to +70° C
- Settling time 1h
- Permissible roll and pitch angle for full accuracy ±60°

## Data interfaces

Standard 30 MF

- 3x RS422 serial inputs
- 4x RS422 serial outputs (NMEA or Anschütz Course Bus)
- Analog +/- 10 V output for rate-of-turn
- 2x Ethernet
- 2x CAN bus

Distribution unit

- 2x RS422 serial inputs (for speed and latitude)
- 2x RS422 serial inputs (for other heading sensors, option)
- 12x RS422 serial outputs (NMEA or Anschütz Course Bus)

## Alerts

- System failure with potential-free relay contact
- ALR/ACK NMEA alert communication via RS422 interfaces (acc. to IEC 61162-1)
- Bridge Alert Management communication via Ethernet (acc. to IEC 62923-1/-2)

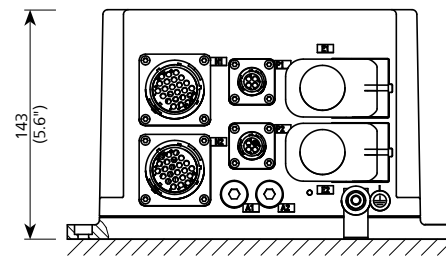
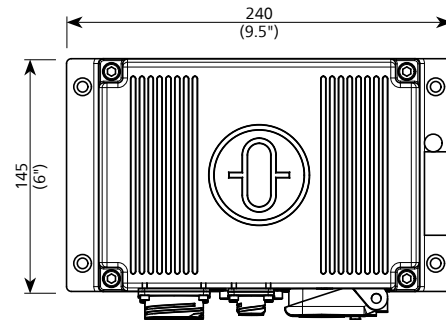
## Weight

- Standard 30 MF: 3,3 kg (without cables)

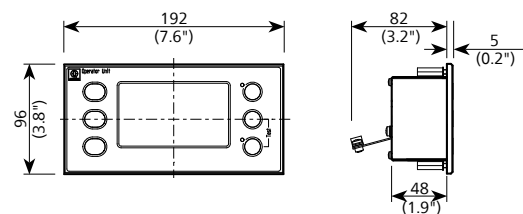
## Type of enclosure acc. to IEC/EN 60529

- Gyro compass IP 44
- Operator unit IP 23/IP 56 front sided
- Distribution unit IP 22

## Standard 30 MF



## Operator unit



## Distribution unit (option)

