

# Standard 22

Anschütz Gyro Compass System



Proven Gyro Compass Technology For More Than 100 Years

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Standard 22 is the most popular gyro compass in the market – due to its performance and reliability.

Since its market introduction more than 15,000 Standard 22 have been sold. Standard 22 uses sophisticated gyro compass technology based on 100 years of experience. Operational safety was dramatically increased due to a patented data transmission technology that completely replaces the use of slip rings.

The new Standard 22 Gyro Compass combines proven technology and long maintenance periods with most advanced features. A secure investment in your ship – for a long time.

## Features

In addition to acting as main heading sensor, the Standard 22 Gyro Compass system offers many features that provide additional value and make the day-to-day work easier. The Standard 22 Gyro Compass is equipped with automatic speed / latitude error correction. Speed and latitude data are provided by sensors or entered manually via the operator unit.

By using the «quick settling» mode, the heading information is provided within just one hour after start up.

The integrated heading monitor compares the heading information from up to four different compasses. An alarm is given if a user-defined threshold is exceeded.

In case of a gyro compass system alarm, the system switches automatically to another compass as defined by the user. The central alarm reset function allows a remote acknowledgment of audible alarms meaning that an audible alarm of the Standard 22 can be muted directly at the operator unit or remotely via a central alarm panel.

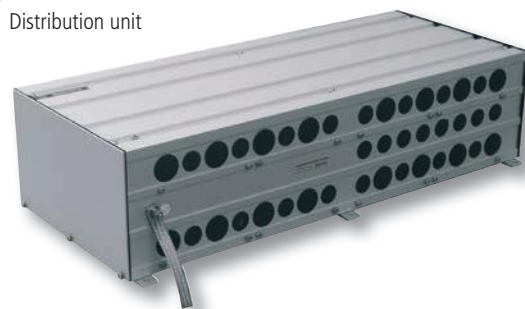
## Your Benefit®

- High accuracy
- Independent transmitting magnetic compass (TMC) path
- Individual speed error correction
- Quick settling reduces the settling time to 1 hour
- Manual and automatic speed / latitude error correction
- Compass monitor and selector with automatic switch-over (configurable)
- Central alarm reset
- Integration of magnetic compass, satellite compass and external rate-of-turn gyro
- Short installation time and long maintenance periods
- Rate-of-turn gyro with an accuracy acc. to IMO-standards
- IMO approved for standard and high-speed crafts
- Modular product range to meet individual requirements – from a single gyro compass to the fully redundant gyro compass system
- Integrates seamlessly into your system environment due to a multitude of interfaces and formats

Operator unit



Distribution unit



Standard 22 contains an independent transmitting magnetic compass (TMC) path. A failure in the compass system does not affect the processing of the magnetic heading. With this function, various flag state authorities do no longer require an optical bypass for the magnetic compass on board of the vessel resulting in cost savings for the ship yard and the ship owner. The new individual speed error correction function ensures that a failure in a log or GPS receiver only affects the heading of one gyro compass. Thus, subsequent systems such as dynamic positioning systems are able to detect a heading error caused by an incorrect latitude or speed information. Operators can quickly determine the root cause of the incorrect heading information. As an option Standard 22 allows to integrate gyro and satellite compasses from 3rd party manufacturers. This is an interesting solution also for retrofits as existing compasses can be integrated into the new Standard 22 gyro compass system.

Standard 22 Gyro Compass



**Approved technology**

The Standard 22 Gyro Compass is type approved in accordance to the International Maritime Organisation (IMO) standards. In addition the Standard 22 system is approved to the high-speed craft code and as a rate-of-turn sensor with an accuracy according to IMO-standards.

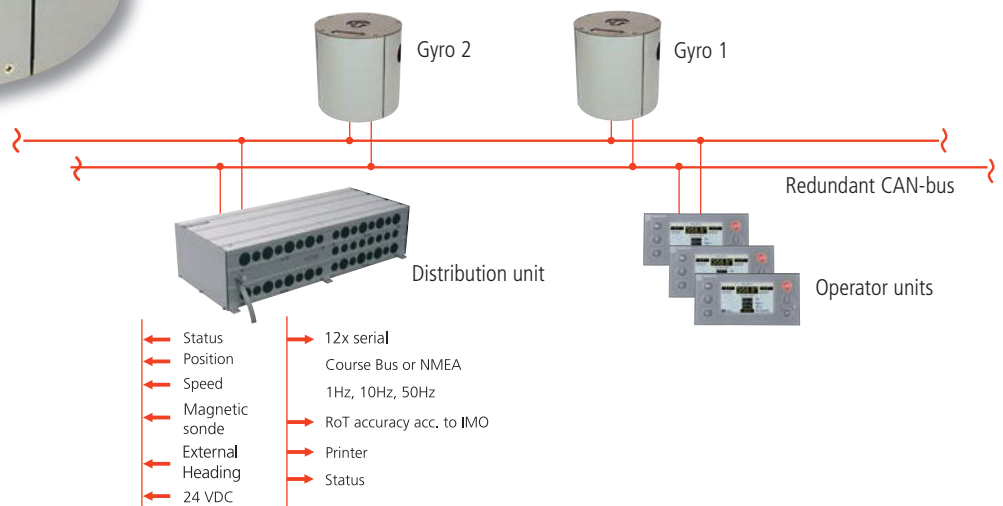
**Products**

The Standard 22 Gyro Compass is a modular system that was designed to meet the demanding requirements of our customers. The system consists of the gyro compass, an operator unit and a distribution unit. Up to three gyro compasses can be connected to the system. A magnetic compass, a satellite compass and an external rate-of-turn can be integrated as additional sensors. Raytheon Anschutz also offers a fully redundant gyro compass system compliant to DNV NAUT-AW, NAUT-OC, and NAUT-OSV. This system consists of 2 gyro compasses, 2 operator units, 2 distribution units and one change-over unit. No single failure in this system will cause loss of heading information to the connected equipment.

**Accessories**

- Self aligning steering repeater with source indication
- Self aligning bearing repeater with source indication
- Digital repeater
- Repeaters can be configured for 180° turned heading output, e.g. for use on double-end ferries
- Multi display
- Different casings for IP44 and IP56
- Course and rudder angle printer
- Course transducers for retrofit solutions (please refer to Standard 22 compact and retrofit solutions brochure)

Steering repeater compass



## Technical Data

### Accuracy

Settle point error	0.1°secLat., RMS
Static error	0.1°secLat., RMS
Dynamic error (periodic roll and pitch+horizontal acceleration)	0.4°secLat., RMS
secLat.=1/cosLatitude	

### Supply voltage

24 V DC (18 – 36 V DC)

### Power consumption

80 W to 140 W (start-up) sensor unit
36 W distribution unit
6 W operator unit
7 W per analogue repeater

### General data

Permissible ambient temperature	
Operation	-10° C to +55° C
Storage	-25° C to +70° C without supporting liquid
Settling time	1h (< 3°) with «Quick settling»
Max. rate of follow-up	100 °/s
Permissible periodic roll and pitch angle	±45°

### Signal outputs

- 12x RS 422 individually configurable  
as Course Bus or NMEA
- 1x RS 232C for course printer
- Rate-of-turn ±10 V DC  
for 30°/min, 100°/min or 300°/min

### Alarms

Built-in alarms	power failure, gyro failure, system failure
Alarm outputs	potential-free relay contacts, bi-directional central alarm reset

### In accordance with

IMO A.424(XI), A.694(17), A.526(13), A.821(19),  
MSC.97(73), MSC.36(63), EN/IEC 60945,  
EN/ISO 8728, ISO 16328, EN/IEC 62288,  
EN/IEC 61162

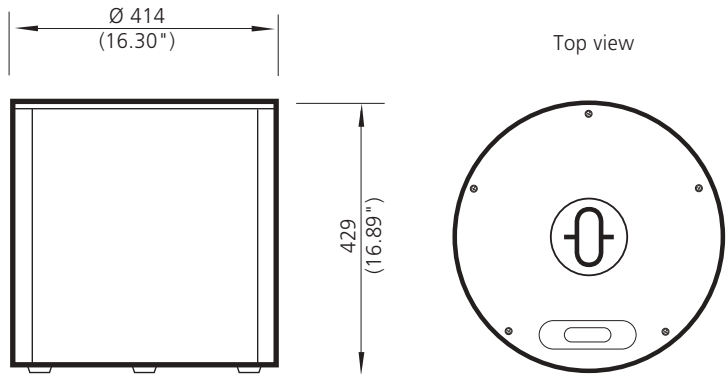
### Weight

Master compass	17.5 kg
Distribution unit	7.5 kg
Operator unit	1.5 kg

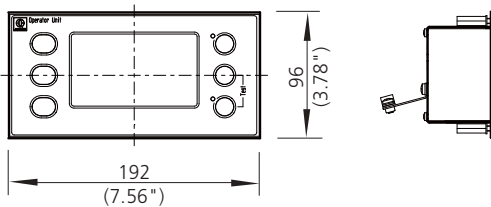
### Type of enclosure acc. to IEC/EN 60529

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

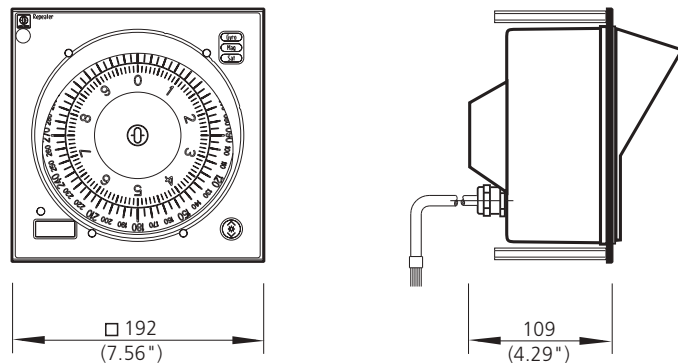
### Standard 22 Gyro Compass



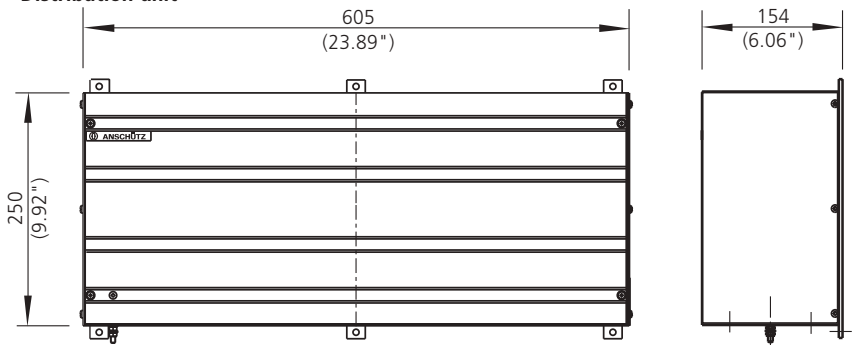
### Operator unit




### Steering repeater compass



### Distribution unit



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developments without notice.

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