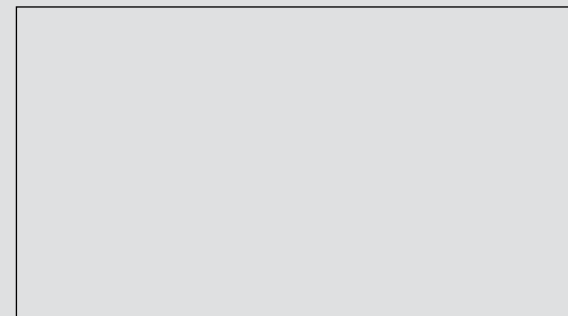


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ALPHATRON
Alpatron Marine

The human touch in technology

*Maintenance free
Gyro compass ALPHAMINICOURSE*

ALPHAMINICOURSE GYRO COMPASS

SMALL IN SIZE - GREAT IN PERFORMANCE

Over 700 Alphaminicourse gyro's are in operation since its introduction

APPLICATION

The Alphaminicourse is designed to meet the needs of the marine market. Highly accurate performance derived from the aerospace industry, combined with a rugged construction in order to cope with the most severe circumstances at sea.

The Alphaminicourse provides the following data:

- Heading against the geographical meridian at the vessel speed up to 90 knots, latitude up to 80 degrees and roll and pitch angles up to maximum 50 degrees
- Rate of turn indicator
- Information on operation mode and failure indication



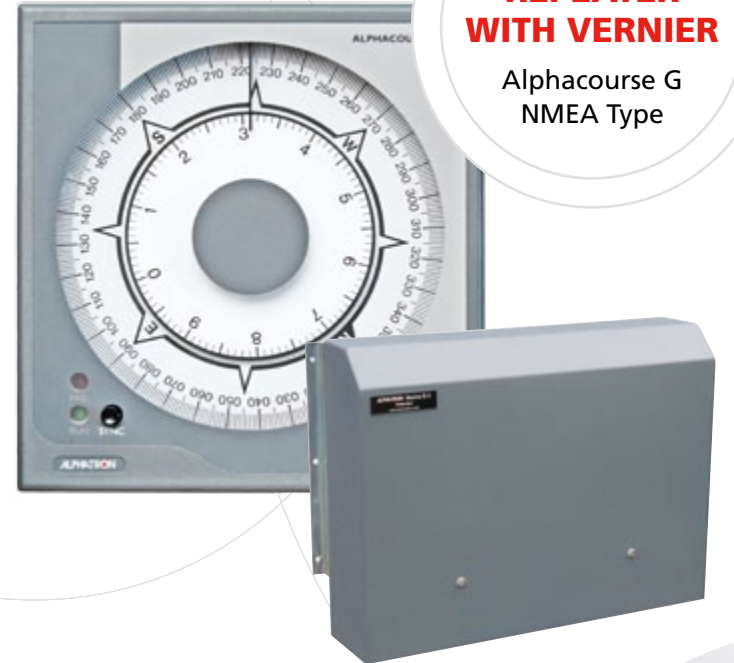
BEARING REPEATER WITH VERNIER ON BRACKET
Alphacourse B
NMEA Type



FEATURES

- Maintenance free
- Fast settling time < 45 minutes
- Low power consumption
- Small size 288x240x329 mm
- World wide support
- Wheelmark MED approved
- Suitable for all kinds of vessels
- Automatic start up and alignment
- Automatic speed and latitude correction
- High follow up rate > 200° sec
- Light weight 12.5 kg
- Shock resistant up to 5G
- One unit design
- Low cost of ownership
- Complies with high speed HSC code
- Built-in test function
- Quadriple gyro configuration
- Full range of serial repeaters available

STEERING REPEATER WITH VERNIER
Alphacourse G
NMEA Type



CONFIGURATION

The Alphaminicourse has a monoblock design, the compass outer casing has a window on top. For easy compass reading and if required, the control unit can be mounted at maximum 100 meters from the main gyro.



DRY GYRO ELEMENT

The high precision dynamically tuned gyroscope and gimbal suspension. Derived from aerospace technology, now available to the marine industry.

- No liquid used
- No heating or cooling
- No annual service

Complies with EU rules for ecological safety.

ALSO AVAILABLE

- NMEA Booster
- Stepper Booster
- Gyro interswitch
- Horizontal stand
- Tilting bracket
- Rate of turn indicator



MULTI-FUNCTIONAL DIGITAL GYRO REPEATER

- Alphacourse MFD
- NMEA Type
 - Digital gyro course
 - Rate of turn trend
 - Audible stepper clicks



ANALOGUE/DIGITAL MULTIFUNCTIONAL GYRO REPEATER

- Alphacourse MF
- NMEA Type
 - Analogue gyro course
 - Digital gyro course
 - Rate of turn trend
 - Audible stepper clicks



TECHNICAL DATA

Dynamic accuracy	<+/- 0,6° sec
Settle point error	<+/- 0,2° sec
Follow up speed	>200° sec
Settling time	< 45 minutes within 0,7°
Operation temperature	from -15°C to +55°C
Storage temperature	from -60°C to +80°C
Shock	up to 5G
Assigned service life	40.000 hours

Inputs	
Latitude	NMEA 0183 via RS232 / RS422 from GPS
Speed	Pulse or contact at 100, 200 and 400 per nm from log NMEA 0183 via RS232 / RS422 from log
Input voltage	24 (18-36) V DC
Power consumption	Startup 50W / Operation 25W
Assigned service life	40.000 hours
Outputs	
Step	1x (5V TTL), 6 steps per degree
Serial data	12x RS422, NMEA 0183 4x RS232, NMEA 0183 1x ROT +/- 200° sec (+/- 10 V)

The gyro compass Alphaminicourse complies with requirements (19), MEC 945-96, ISO 8728-1987 of IMO A.424(XI), A.821



MULTI-FUNCTIONAL COLOUR DISPLAY REPEATER

- Alphacourse MFC
- NMEA Type
 - Digital gyro course
 - Rate of turn trend
 - Audible stepper clicks