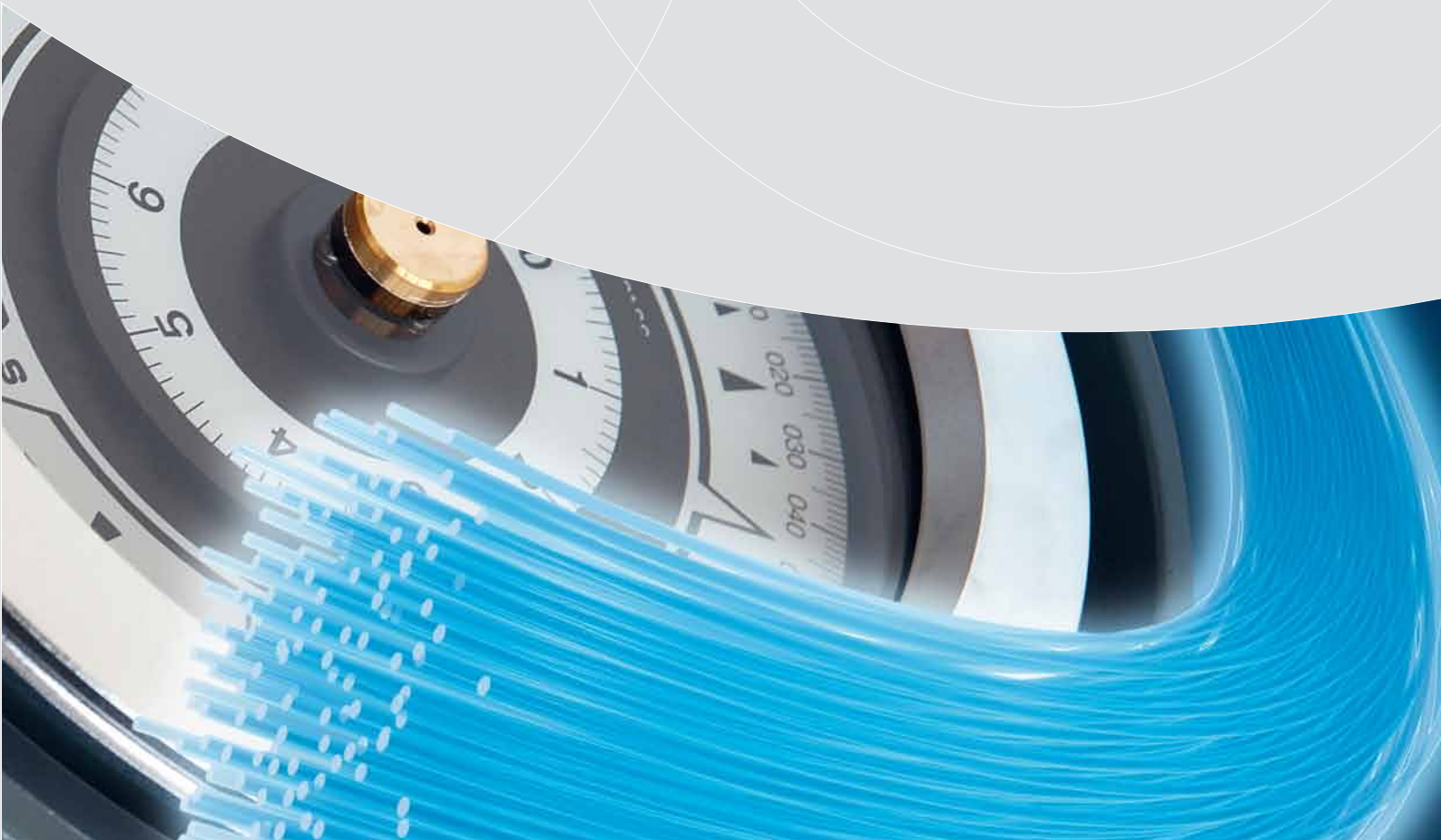
ALPHATRON
Alphatron Marine

The human touch in technology

Maintenance free Fiber Optic
"Gyro" compass ALPHAFIBERCOURSE



ALPHAFIBERCOURSE GYRO COMPASS

STATE OF THE ART FOG (FIBER OPTIC) STRAPDOWN TECHNOLOGY

HEADING, ROLL, PITCH AND RATE OF TURN

APPLICATIONS

The Alphafibercourse is an environmentally friendly high quality product for marine applications without the need of periodic maintenance.

TYPICAL APPLICATIONS

- High speed vessels
- RIB's
- Mega Yachts
- Offshore Patrol Vessels
- Survey vessels
- Dredgers
- DP operation vessels
- Cruise ships
- Seismic vessels
- Anchor handlers
- Platform vessels
- Fast Patrol boats
- Vessels with a helicopter deck
- Vessels needing roll & pitch info
- Military vessels*
- Research vessels

* Export license required outside the EU

FOG SENSOR WITH OPTIONAL DOCKING STATION

By connecting the main Alphafibercourse sensor to the docking station, 12 repeater stations are easily connected up galvanically isolated. In order to prevent failures of the system caused by external factors.

Via the docking station it is also possible to connect the DNV OSV approved Alphatron interswitch for multiple heading sensor applications.

The docking station is fitted with a digital heading display.

FOG SENSOR

- **All-in-one high accuracy Altitude and Heading Reference Sensor**
  Heading, Roll, Pitch, rate of turn
- **Fiber-Optic Gyroscope (FOG), unique strapdown technology**
  No spinning element, no gas cavity hence maintenance free
- **Compact, lean and reliable**
  Appropriate for all marine applications
- **Multiple interfaces – aiding sensors for a range of applications**
- **Ethernet for fast and easy integration**
- **Time stamping for all data**
- **Low latency for real time control loops**
- **IXBLUE FOG inside**

BEARING REPEATER WITH VERNIER ON BRACKET

Alphacourse B
NMEA Type

FEATURES

- Maintenance free
- Fast settling time <10 minutes (I/O to GPS)
- Low power consumption 10 watt (excl. repeaters)
- Small size 160x160x113mm (excl. docking station)
- Worldwide support
- Wheelmark MED approved
- Suitable for all kinds of vessels
- Automatic start up and alignment
- Automatic speed and latitude correction
- High follow up rate
- Light weight 2.8 kg (excl. docking station)
- 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 via interswitch
- Full range of serial repeaters available
- Vessel speed up to 50 knots

STEERING REPEATER WITH VERNIER

Alphacourse G
NMEA Type

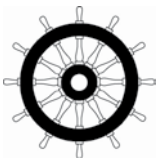
CONFIGURATION

The Alphafibercourse has a monoblock design and if combined with the optical docking station output to 12 repeaters

DNV APPROVED INTERSWITCH

ALSO AVAILABLE

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



MULTI-FUNCTIONAL DIGITAL GYRO REPEATER

ANALOGUE/ DIGITAL MULTIFUNC-TIONAL GYRO REPEATER

ALPHACOURSE MF

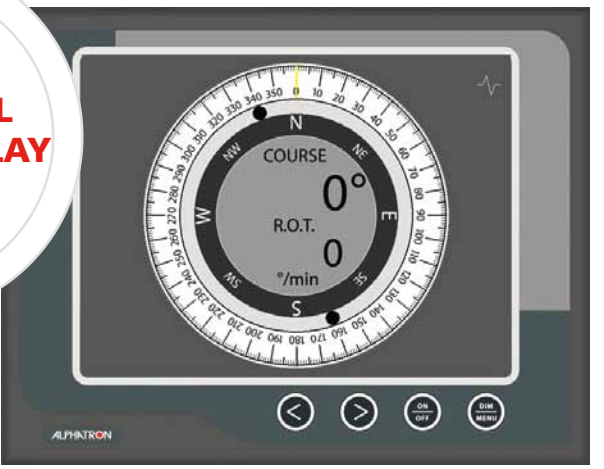
- NMEA Type
- Analogue gyro course
- Digital gyro course
- Rate of turn trend
- Audible stepper clicks

ALPHACOURSE MFC TS

- NMEA Type
- Digital gyro course
- Rate of turn trend
- Audible stepper clicks
- Recording data of the FOG
- Configuration tool

Approvals
- ISO 8728
- HSC ISO 16328
- EU Directive 89/336/EEC
- IEC60945

MULTI-FUNCTIONAL COLOUR DISPLAY REPEATER



TECHNICAL DATA HEADING REFERENCE SENSOR

GYROCOMPASS AND MOTION SENSOR

Heading accuracy	0.23 deg
Roll and pitch accuracy	0.1 deg
Setup time	<15 minutes
Range	Heading: 0 to 360° Roll: -180° to + 180° Pitch: -90° to + 90°

MECHANICAL

Dimensions (l x W x H)	160mm x 160mm x 113mm
Weight	2.8 kg (excl. docking station)
Water tightness	IP66

CONTROL

Serial RS232 or RS422	2 input and 2 output ports & repeater port
Ethernet	UDP (unicast, multicast, broadcast) / TCP (client or server)
Pulse port	4 inputs/2 outputs, 5V (TTL Level)
Input/output formats	Industry standards: NMEA 0183, ASCII, BINARY
Baud rate	600 bauds to 460 kbauds
Data output rate	0.1 Hz to 200 Hz
Data input rate	Up to 100 Hz

POWER SUPPLY

Power supply	24V DC (15 to 36V DC)
Power consumption	10W

RELIABILITY

MTBF (computed)	40,000h
Preventive maintenance	None

ENVIRONMENT

Operating temperature	-20°C to +55°C
Storage temperature	-40°C to +80°C
Acceleration dynamic range	+/- 5g
Vibration	Sinus 0.5g max (4 to 50Hz)

INPUTS

Latitude GPS	NMEA 0183 via RS232 / RS422 from GPS
Speed Log	Pulse or contact at 100, 200 and 400 per nm from log TTL (SV) NMEA 0183 via RS232 / RS422 from log, ASC II Binary
Remote access via	UDP TCP client or server

OUTPUTS

Via gyro docking station	12x RS422 NMEA 183 or RS422

SIGNAL AVAILABLE

True north
Rate of turn
Roll & Pitch

230
240
250
260
270
280
290
300
310
320
330
340
350
000
010
020
030
04
W
N
4
5
6
7