



POLARIS

FOG-50

F I B E R - O P T I C G Y R O C O M P A S S

Attitude Reference System



Commercial & Industrial

Ideals for:

Cargoes

Oil Tankers

Super Yachts

Ferry Boats



Type Approved



WHEELMARK
Notified Body N°: 0098

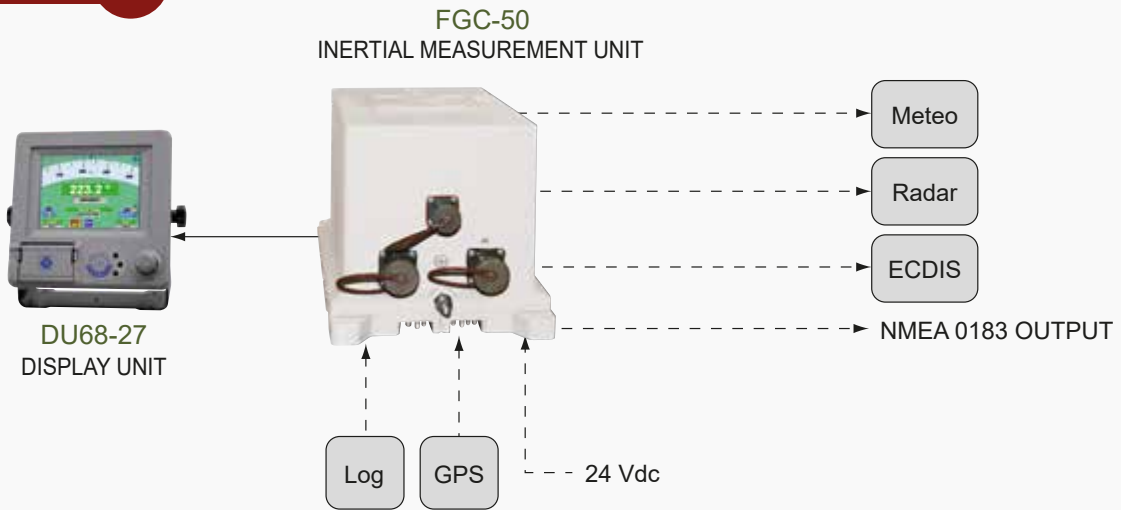
Certificate N°: 94 022 - 10 HH
Certificate N°: 94 838 - 10 HH
Certificate N°: 94 849 - 10 HH

Based on GEM's proprietary fiber-optic technology, the Polaris series gives accurate true-north alignment and attitude reference without GPS aiding through refined processing algorithms.



ORDERING INFORMATION

Configuration A

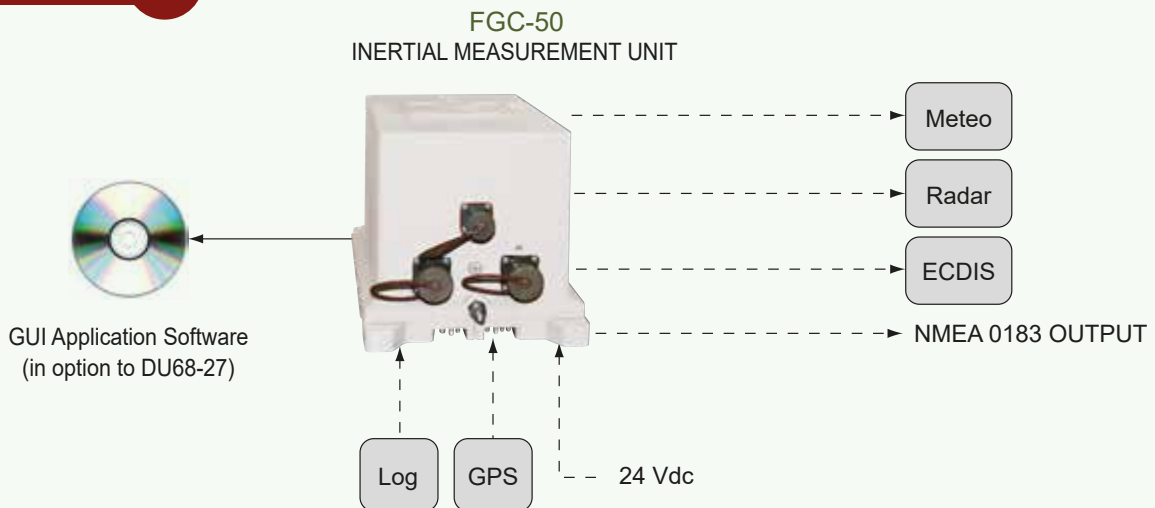


SUPPLY COMPOSITION

- FGC-50 Inertial Measurement Unit
- DU68-27 Display Unit
- Connection cable (10 m)
- User and Installation manual
- Certificate of conformance

Ordering information: P/N PF200240

Configuration B



SUPPLY COMPOSITION

- FGC-50 Inertial Measurement Unit
- GUI Application Software
- User and Installation manual
- Certificate of conformance

Ordering information: P/N PF200241

TECHNICAL SPECIFICATION

FGC-50 Inertial Measurement Unit	
Performances*	
Heading accuracy	≤ 0.4° Secant (Latitude) RMS **
Roll / Pitch accuracy	≤ 0.1° RMS
Heave	0.05m or 5% whichever is greater
Heading range	0° ÷ 360°
Roll / Pitch range	± 60°
Settling time	≤ 10 min (static) ≤ 30 min (sea conditions)
* Certified according to IMO A.424 (XI), A.821 (19), A.526 (13), ISO 8728 (1997), ISO 16328 (2001), ISO 20672 (2001), IEC 60945 (2008), IEC 62288 (2008), IEC 61162 series.	
** Secant (Latitude) = 1/cosine (Latitude)	
Signal Outputs	
Number of outputs	7 serial lines
Data output	HDG, ROLL, PITCH, ROT, HEAVE
Output protocols (user defined)	NMEA 0183, IEC-61162, Binary
Baud rate (user defined)	4800 bps, 38400 bps
Output rate (user defined)	0.25 Hz to 100 Hz
Environmental conditions	
Operating temperature	0° C to +55°C
Storage temperature	-40° C to +80°C
MTBF	> 100,000 hours
Protection grade	IP66
Other requirements	Fully compliant to IEC-60945
Signal Inputs	
Number of inputs	3 serial lines
Input protocols	NMEA 0183, IEC-61162
Baud rate (user defined)	up to 115200 bps
Input rate (user defined)	up to 10 Hz
Power requirements	
Supply	24V DC -10%, +30%
Consumption	12 W
Weight and dimensions	
Weight	6.8 Kg
Dimensions (W x D x H)	322 x 177 x 167.5 mm

DU68-27 Display Unit	
Features	
Display size	6.5" Touch Screen
Display resolution	640 x 480 pixel (VGA)
Supply	24V DC -10%, +30%
Consumption	15 W
Weight and dimensions	
Weight	1.2 Kg
Width	234 mm
Depth	148.5 mm
Height	224.2 mm

OPTION

PSU-1800 AC / DC with automatic changeover	
Features	
Main input	115/230V AC, 50/60 Hz
Aux input	18V to 36V DC
Output	24V DC
Power output	600 W max
Weight and dimensions	
Weight	5.7 Kg
Width	200 mm
Depth	150 mm
Height	300 mm

ACCESSORY

MR33D / MR34D Repeater	
Features	
Interface	NMEA0183, RS422
Baud rate	4800 bps
Supply	24V DC -10%, +30%
Consumption:	5 W
Protection	IP56 (MR34D) - IP40 (MR33D)
Weight and dimensions	
Weight	5 Kg (MR34D) 2.5 Kg (MR33D)
Dimensions	Ø 208 x 191 mm (MR34D) (W x D x H) 192 x 88 x 192 mm (MR33D)

ACCESSORY EQUIPMENT



MR33-D
Self-aligning steering repeater for console mounting with 360° and 10° compass cards.



MR34-D
Self-aligning, watertight bearing repeater with 360° and 10° compass cards



MR-21
Repeater stand with gimbals for MR34-D.



MR35
Bulkhead repeater stand with gimbals for MR34-D.

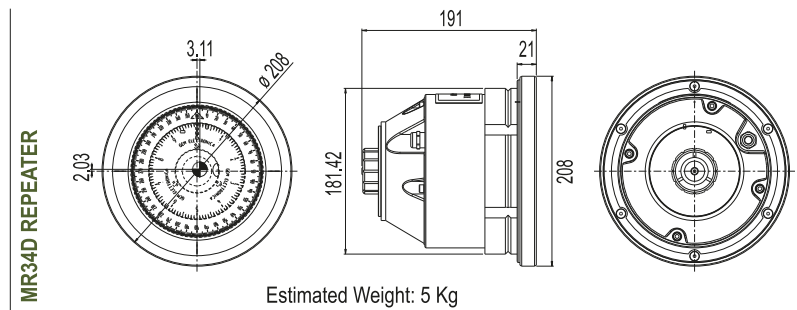
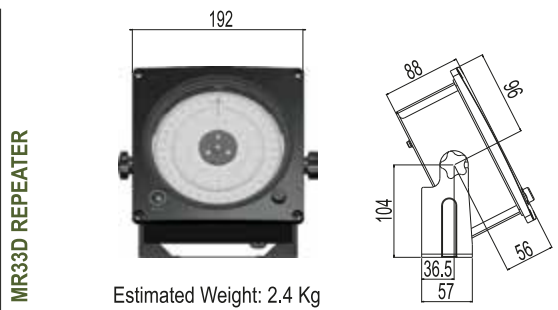
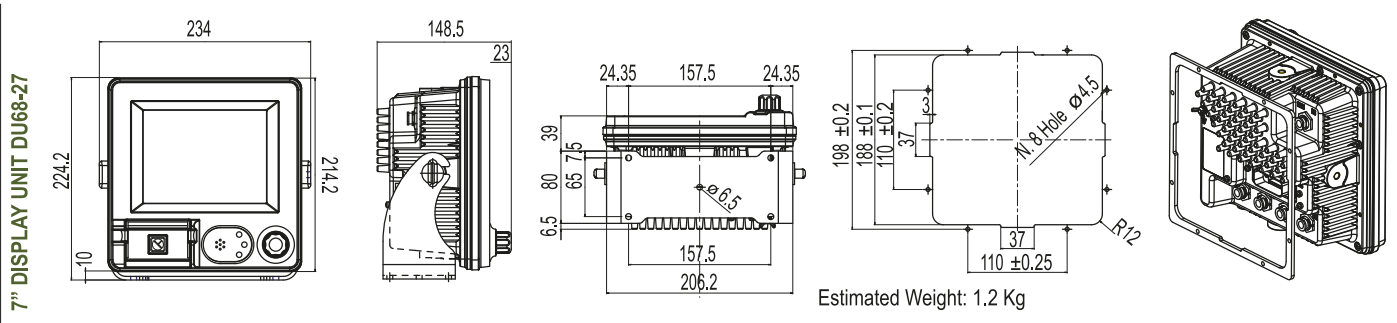
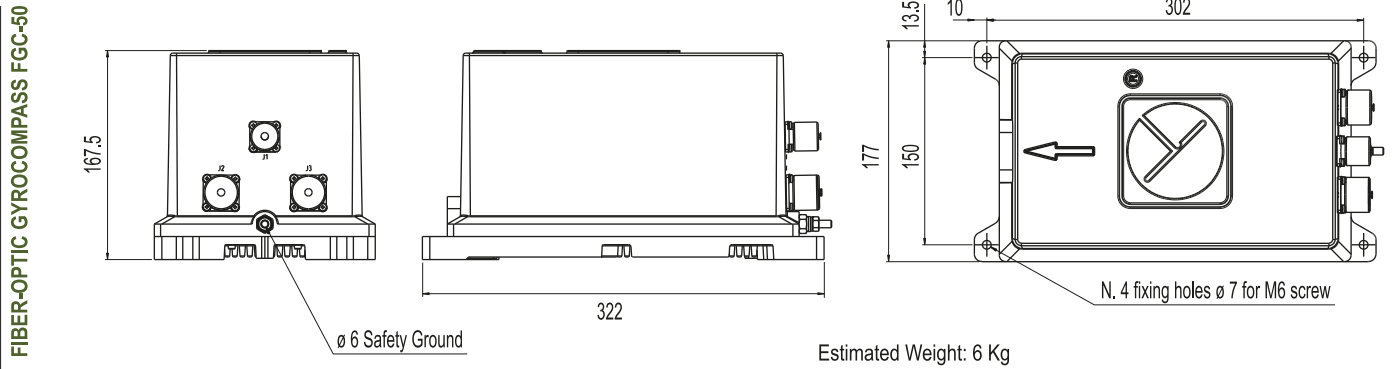


MR43
Azimuth circle for MR34-D bearing repeater



NT920DHR
Digital repeater

OUTLINE DRAWING dimensions in mm.



Surveillance & Security

Guidance, Navigation & Positioning

Military & Defence

Marine Electronics

This brochure should not be considered a contractual offer to sell. The specifications given herein may be changed by the manufacturer, GEM elettronica S.r.l., without notice.

