

MK27F

Attitude and Heading Reference System

- *The New Industry Standard for Military Gyrocompasses*
- *Fiberoptic Gyrocompass Replaces Existing Mechanical Gyrocompass*
- *Synchro Heading, Roll or Pitch at either 60 or 400 Hz*
- *Interfaces with Electronic Chart Systems, Tracking and Steering Systems*
- *Rugged, Compact and Designed for High Shock*
- *System MTBF greater than 9000 hours*



Sperry Marine

Specifications

Performance:

Accuracy

Heading: 0.35° secant(Lat) 1σ
Roll, Pitch: 0.1° 1σ

Dynamic Motion

Roll: ±40 Deg
Pitch: ±15 Deg
Yaw: ±10 Deg
Speed: -10 to 90 Knots

Setting Times at Sea

Coarse Align < 25 minutes
Full Accuracy < 2 hours

Size and Weight:

Height 41.8 cm (17.4 in)
Width 34.8 cm (12.0 in)
Depth 31.2 cm (12.3 in)
Weight 25 kg / 55 lb

www.sperrymarine.northropgrumman.com

For more information, please contact:
Sperry Marine

USA

1070 Seminole Trail
Charlottesville, VA 22901-2891 USA
Ph: +1 434-974-2000
Fax: +1 434-974-2259
ISO9001

UK

118 Burlington Road
New Malden
Surrey KT3 4NR
England
Ph: +44 (0)208 329 2000
Fax: +44 (0)208 329 2415
ISO 9001

Germany

Stückenstrasse 1-3a
D-22081 Hamburg
Germany
Ph: ++ 49-40-299 00-0
Fax: ++ 49-40-299 00-298
ISO 9001

System Inputs:

Serial Data Inputs:

4 channels RS422. Each channel accepts GGA, GLL, GNS, VBW, VHW and VTG NMEA messages.

System Power:

24 VDC, 50 Watts

System Outputs:

Analog Outputs:

Step Heading Output
24 VDC
6 steps per degree

Synchro Output Channels:

2 channels
Selectable H, R, P
Selectable 1X – 36X

Vital Reference Output:

Internally Generated
115 VAC, 400 Hz
50 Watt maximum

Serial Data Outputs:

4 channels RS422. Message set for each channel individually configurable for messages and message rates.

Environmental Conditions:

Temperature

Operating -25° C to +65° C (-13° F to +167° F)
Storage -40° C to +75° C (-40° F to +167° F)

Humidity 95% Relative

Shock MIL-S-901D

Vibration MIL-STD-167-1 for type I equipment

EMI/RFI MIL-STD-461D

Magnetic Immunity

5 Gauss Operation

Air Borne Noise

MIL-STD-740-1 Grade C

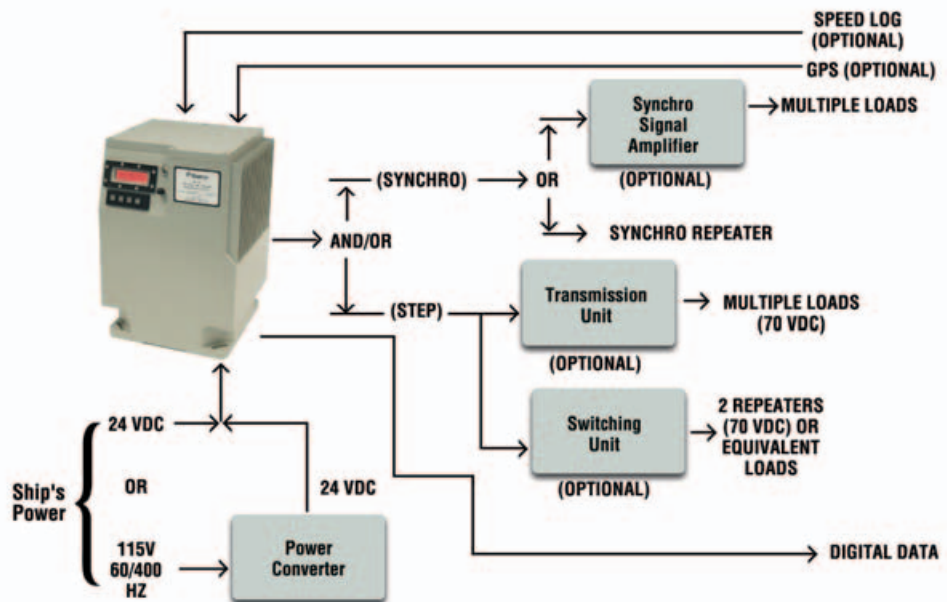
Structure Borne Noise

MIL-STD-740-2 type III

Sealing

Watertight per MIL-STD-810 Method 509.3

Typical MK27F Installation Diagram & Interface



Sperry Marine, with worldwide headquarters in Charlottesville, VA, and major engineering and support offices in Melville, NY, New Malden, England, and Hamburg, Germany, is part of the Northrop Grumman **Electronic Systems** sector.

This brochure, including the information contained herein, is the Intellectual Property of Northrop Grumman Corporation and as such may not be copied or reproduced without the written permission of Northrop Grumman. All specifications herein were in effect on the date of this publication. However, any technical data should not be solely relied upon and should be verified at time of order. Furthermore, equipment may vary from that specified due to the Sperry Marine policy of continual product improvement.