RUGGED TWO AXIS DIGITAL FIBER-OPTIC GYRO SYSTEM

FEATURES

- Low noise, high bandwidth 2-axis Fiber Optic Gyroscope (FOG)
- Compact and rugged design to withstand harsh environments
- Standard RS-422 interface for easy integration
- MIL-qualified according to the MIL-STD-461E/810G
- Highly suitable for pointing and stabilization applications
- Superior performance under high vibration, shock and acceleration conditions

ALD-FOG210-CBB2



APPLICATIONS

- Radar antenna pointing
- Electro-optical gimble control
- Fire Control System
- Close-in Weapon System
- Remote Weapon Station
- Robotics

DESCRIPTION

The ALD-FOG210-CBB2 is a dual-axis FOG that provides highly accurate azimuth and elevation rate data in environmentally challenging conditions. It comes with standard dual RS422 interfaces, through which the output data is available for the user. The FOG sensors are precisely calibrated to eliminate misalignments, offsets, scale factor errors and temperature-dependent errors.

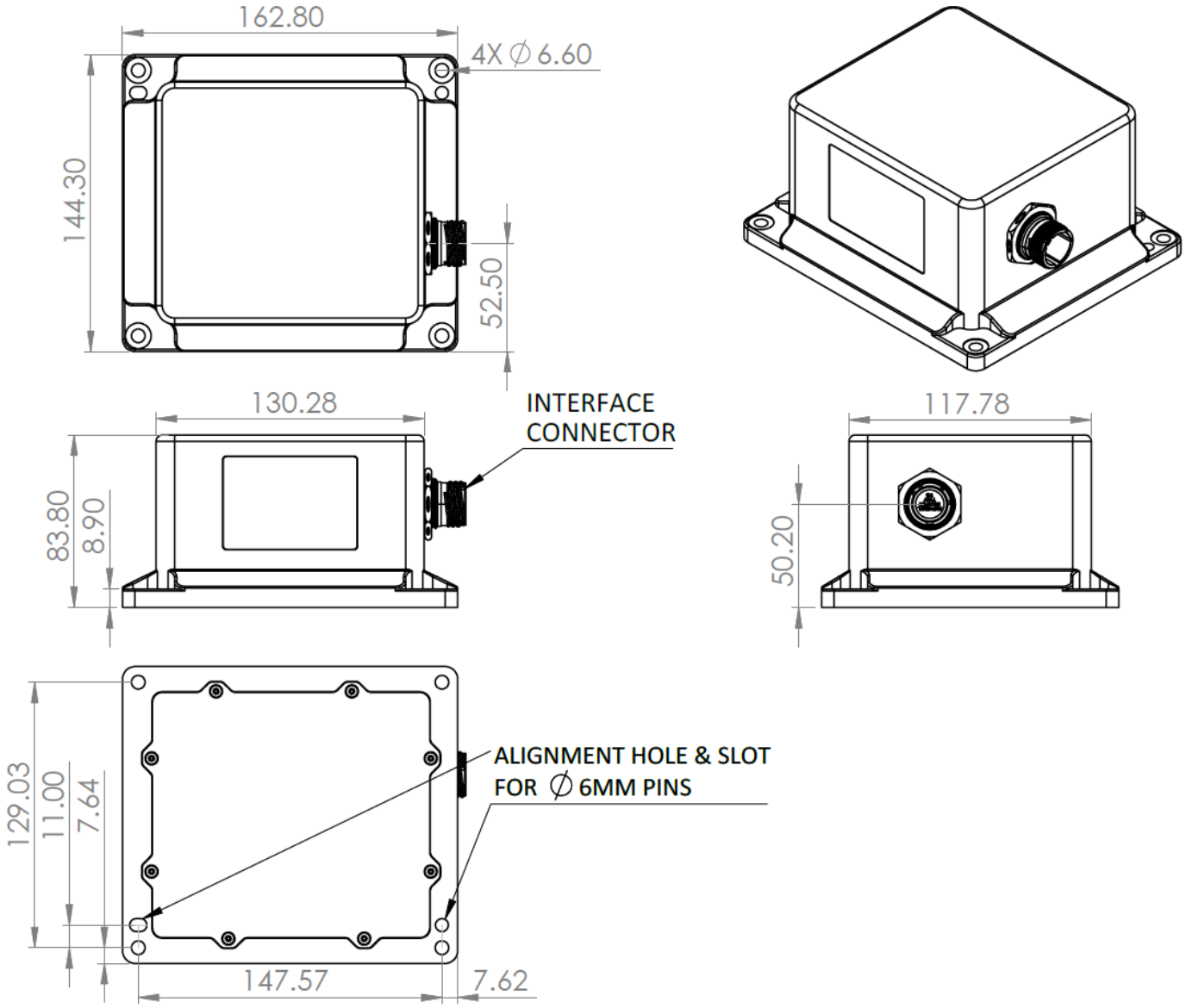
The ALD-FOG210-CBB2 is qualified as per the MIL-STD-461E and MIL-STD-810G and offers a wide operating and storage temperature range, making it suitable for military and industrial applications. It provides precise angular rate data with high bandwidth and resolution, making it suitable for stabilization and tracking performance in platforms like electro-optical gimbals, radars and other stabilization platforms. This technologically evolved system is a functional replacement for the traditional mechanical gyros to realize various demanding applications.

TECHNICAL SPECIFICATIONS

Parameter	Parameter Value	Units	Precondition
Sensor Specifications			
Gyroscope			
Technology	2-Axis Digital Fibre Optic Gyros (FOG)	-	-
Range	±350	°/s	-
Bias Instability	1	°/hr	1σ, At Constant Temperature
Non-Linearity	500	ppm	1σ, At Constant Temperature
Angular Random Walk (ARW)	0.0667	°/√hr	At Constant Temperature
Noise	0.03	°/s	-
Performance Specifications			
Startup time	<1	sec	-
Bandwidth	70	Hz	-
Electrical Specifications			
Supply Voltage	+12 to +32	VDC	-
Current Consumption	100	mA	Tolerance ±20mA; at 24 VDC
Communication Interface			
External Interfaces	RS422 x 2	-	-
Data Rate	1000	Hz	-
Physical Specifications			
Weight	1700	gm	Tolerance ±50 gm
Dimensions	162.80 (L) x 144.30 (W) x 83.80 (H)	mm	Tolerance ±0.5 mm
Operating Temperature	-40 to +70	°C	-
Storage Temperature	-55 to +85	°C	-
I/O Connector	MIL-DTL-38999/24WC35PA, 22pin	-	-
Environmental Specifications			
Shock, Operational	40 g, 6-10 msec	-	-
Vibration	20-2000 Hz, 8.0 g rms, each axis	-	-
MTBF	> 50,000	hours	At 30°C, AIF, calculated as per MIL-HDBK-217F, Parts stress method
Ingress Protection	IP65	-	-

MECHANIAL DIMENSIONS

All dimensions are in MM (not to scale)



ORDERING INFORMATION

ALD-FOG210-CBB2 (Product Code: 25021)