

ARGO

Airborne Inertial Navigation Family



credits: Piaggio Aerospace



INS/GNSS

Navigation and Stabilization System

The ARGO FAMILY

The **ARGO** family of Airborne Inertial Navigation Systems (INS), based on proprietary strapdown Fiber-Optic Gyro (FOG) design, is engineered to deliver maximum accuracy and reliability at minimal total cost of ownership.

The state-of-the-art INS and AHRS (Attitude Heading Reference Systems) solutions offer outstanding navigation and stabilization capabilities, thanks to the advanced state estimation techniques based on Kalman Filter algorithm and the innovative integration of in-house designed and manufactured ITAR-free inertial sensors, which can be coupled to GNSS for automatic initialization and highly calibrated hybrid data output.

The **ARGO** products family provides maintenance-free, robust, low weight, compact volume airborne inertial navigation solutions without compromising performance in all operational environments, including helicopters and fighters.

All navigation products are designed with maximum flexibility to enable smooth adaptation in both retrofit and new aircraft installations.



CHARACTERISTICS	ARGO 3000	ARGO 2000	ARGO 1000
System type	INS	INS	Stabilization GAHRS
Heading (RMS)	< 0.05° sec LAT	< 0.1° sec LAT	< 0.15° sec LAT
Roll/Pitch (RMS)	< 0.03°	< 0.05°	< 0.1°
Position (CEP50)	0.8 nm/hr	< 2 nm/hr	N.A.
Alignment time (data availability)	5 minutes	5 minutes	5 minutes
Alignment time (full accuracy)	5 minutes	10 minutes	15 minutes
Aiding source	GPS TSO-C145c or GNSS (RTK/Omnistar)	Embedded GPS TSO-C145c (EGI)	GPS TSO-C145c
SW/HW Compliance	N.A.	DO-178B / DO-254	N.A.

SYSTEM CHARACTERISTICS

Interfaces

RS422/RS232
ARINC429
Ethernet
PPS
Data output rate: *up to 500 Hz*

Environmental and Reliability

Operating Temperature: *-40°C to +71°C*
Not-operating Temperature: *-55°C to +85°C*
Altitude: *up to 50,000 ft*
EMC/EMI: *MIL-STD-461F; DO-160G*
Vibration: *sinusoidal 5-150 Hz*
random 10-2000 Hz (MIL-STD-810F; DO-160G)
MTBF: *> 25000 hours*

Dimensions

WxHxD: *151x161x286*

Weight

8.5 Kg

Power requirements

28VDC (18-36VDC): *<15 W*
(*configuration dependent*)