

Insta Pilot's Breath Air Monitor

Hypoxia Early Warning
System



INSTA PILOT'S BREATH AIR MONITOR

Hypoxia early warning system that gives aircrew time to react

THE BEST SHORT TERM HYPOXIA MITIGATION

IPBAM constantly monitors breathing air and pressure and alarms the user on dangerous conditions. This early warning gives aircrew time to react before hypoxia symptoms arise. IPBAM knows the requirements of safe breathing air. Alarms are based on physical facts of the human body.

INCREASES AIRCRAFT AVAILABILITY

IPBAM records Data Log of the parameters measured and calculated during flight. Data can be downloaded for de-briefing and root cause analysis. Data log can be used to rule out oxygen and pressure issues in PE investigations. This gives major cost and time savings and increases aircraft availability.

THE ONLY PROVEN HYPOXIA EARLY WARNING SYSTEM IN OPERATIONAL USE

IPBAM is mature product ready for fleet use. IPBAM was developed in co-operation with Finnish Air Force and its' performance has been validated by multiple independent laboratories around the world. US Air Force and US Navy have evaluated the IPBAM in lab and in the air. Insta Pilot's Breath Air Monitor has been flown on three continents and seven countries with six different aircraft models. The Finnish Air Force has taken IPBAM into operational use in 2018 and deployed their whole F/A-18 fleet with IPBAMs in 2020.

TECHNICAL SPECIFICATIONS

Alarms	Oxygen partial pressure in lungs (Alveoli), Cabin pressure conditions
Sensors	Breathing air oxygen concentration (0 .. 100%), Breathing air pressure (70 .. 1200hPa), Cabin pressure (70 .. 1200hPa), temperature
Data log	>30 hours @ 1Hz rate, >3 hours @ 10Hz rate, USB data download
Weight	260 g
Dimensions	78 x 65 x 60 mm (WxHxL)
Interface	MS27796 compatible 3-pin regulator and airhose connector
Power	Li-battery, 200 hours operating time
Operating conditions	-10°C...+50°C Operational -40°C...+60°C Storage
Test conditions	MIL-STD-810G (Env.), MIL-STD-461F (EMI), DO-160G (ESD), Windblast tested

BENEFITS

- Best short term Hypoxia mitigation
- Tested by US Air Force and US Navy
- In daily use at Finnish Air Force
- Cost savings in PE investigations

FEATURES

Monitor breathing air

- Oxygen concentration
- Breathing air pressure
- Cabin pressure
- Temperature



Read more

Alarm the aircrew

- Low oxygen partial pressure in lungs (alveoli)
- Cabin pressurization issues
- Mask mounted haptic alert
- NVG compatible visual alert

Record data log

- Data log of all measured and calculated parameters
- Over 30 hours (1Hz) or 3 hours (10Hz) log time
- Supports de-briefing and root cause analysis

Easy integration and low maintenance

- Standalone pilot equipment - No A/C integration
- Fits most standard regulators and terminal blocks
- Small and lightweight
- Long battery life
- Yearly oxygen sensor replacement

IPBAM parameters and functionalities can be customized to meet end-user requirements.

Patented technology

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