



insta

Pilot Safety products

Improving aircrew safety
with personal flight
equipment



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Insta Pilot's Breath Air Monitor - IPBAM



PROTECTING AIRCREW - THE MOST ADVANCED SHORT TERM HYPOXIA MITIGATION

IPBAM is designed to keep aircrew safe by continuously monitoring breathing air quality and pressure. With instant alerts for dangerous conditions, IPBAM gives aircrew the critical time they need to react - before hypoxia symptoms appear. Its alarm system is based on real human physiology, ensuring every warning is both accurate and actionable.

MAXIMIZE AIRCRAFT AVAILABILITY

IPBAM records detailed flight data, making post-flight analysis and troubleshooting fast and efficient. By quickly ruling out oxygen and pressure issues, IPBAM helps reduce investigation time and costs, keeping your fleet mission-ready.

TRUSTED WORLDWIDE - ONLY PROVEN SYSTEM IN OPERATIONAL USE

IPBAM is developed in partnership with the Finnish Air Force. IPBAM's performance has been validated by multiple independent labs and flight test centers around the world, including the US Air Force and US Navy. The Finnish Air Force has relied on IPBAM since 2018, equipping its entire F/A-18 fleet by 2020. Today, air forces and organizations globally trust IPBAM to protect their crews.

SIMPLE, LIGHTWEIGHT AND READY FOR FLEET DEPLOYMENT

Monitor

- Oxygen concentration
- Breathing air pressure
- Cabin pressure
- Temperature
- Three-axis acceleration
- Angular velocity

Alarm the aircrew

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

Record data log

- Over 19 h (1Hz) or 1,9 h (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
- Yearly oxygen sensor replacement in end-user service

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

Patented technology.

NSN: 6340-58-001-4060

TECHNICAL SPECIFICATIONS

Alarms	Oxygen partial pressure in lungs (Alveoli), Cabin pressure conditions
Sensors	Breathing air oxygen concentration (0 .. 00%), Breathing air pressure (70 .. 1200hPa), Cabin pressure (70 .. 1200hPa), temperature Acceleration ± 16 Angular velocity ± 2000 dps
Data log	>30 hours @ 1Hz rate, >3 hours @ 10Hz rate, USB data download
Weight	260 g, depending on configuration
Dimensions	79 x 60 x 65 / 94* mm (WxHxL)
Interface	MS27796 compatible 3-pin regulator and airhose connector 2-pin bayonet 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

*height depends on the configuration