

HUMS

HEALTH & USAGE MONITORING
SYSTEM

EXTENSIVE INTERFACE CAPABILITY
SUPPORTS SMART SENSOR SUITE





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HEALTH & USAGE MONITORING SYSTEM

HUMS is a sensor-based monitoring system that enables Condition-Based Maintenance by measuring the health and performance of mission-critical components in rotary wing aircraft. By continuously monitoring vibration at numerous points throughout the drivetrain, and pinpointing mechanical faults before they become catastrophic failures, HUMS provides actionable information that allows informed maintenance decisions. HUMS reduces maintenance costs of aircraft systems while increasing availability.

With its reliable and rugged design, HUMS meets harsh environmental requirements of various Rotary Wing Aircrafts.

General Specifications

- Wide range of interfaces
- Fanless Design

Interfaces

- Discrete Signal Input interfaces (32)
- Discrete Signal Output interfaces (20)
- ARINC-429 Receive Interfaces (4)
- ARINC-429 Transmit Interfaces (2)
- RS-422/485 Receive Interfaces (2)
- RS-422/485 Transmit Interfaces (2)
- Accelerometer Interface (28)
- Magnetic Tachometer Interface (5)
- Optical Tachometer Interface (2)
- Optical Tracker Interface (1)
- 100/1000Mbps Ethernet Interface (1)
- USB 2.0 Interface (1)
- CANBUS Interface (3)
- MIL-STD-704F 28VDC Power Input

Physical Specifications

- Dimensions: 290 mm (W) X 90 mm (L) X 225 mm (H)
- Weight : < 4.5 kg

Technical Specifications

- Rotor Track and Balance
- Drive System Vibration Based Monitoring
 - Engine
 - Gear Boxes
 - Rotor (Main and Tail)
- Engine Performance Monitoring
- Engine Power Assurance Check
- Flight Regime Monitoring
- Flight Data Recording
- Parameter Monitoring and Out of Limit Alarms
- Power Input: 28VDC (Nominal)
- Power Consumption: 45W (Nominal)/60W (Maximum)
- Power hold-up for short time power interrupts

Environmental Conditions

- Operational Temperature and Altitude: -40°C / +71°C, 20.000 ft
- Storage Temperature: -55°C / +85°C

Qualifications

- MIL-STD-704
- MIL-STD-810 / DO-160

