

O701 - Faster Sampling Fiber Optic Temperature Monitor



- Faster Sampling Rate: 30Hz Per Channel
- High Speed CANBUS output
- Rugged, Compact Design
- 1 to 4 Channels, Expandable
- Plug and Play
- Best in class EMI, ESD Immunity
- Software designed to be interfaced with other testing platforms

Rugged design, designed for reliability, multichannel fiber optic temperature monitor with higher sampling rate for all channels.

Product Summary

The Rugged Monitoring O701 is a compact design, designed for reliability to operate in extreme EMI, RFI, Microwave and high voltage environments. The O701 Fiber optic monitor combines reliability and user friendly configuration software. It is a multi-channel fiber optic temperature monitor with precision measurement for Original Equipment manufacturers. The O701 has a measuring range from -271 °C to +300 °C. The system offers complete immunity to RFI, EMI, microwave radiation, and High Voltages making it an optimal choice for environments where the limitations of conventional temperature sensors/monitors impact usage in extreme conditions. The system is based on proven GaAs technology and designed for Plug and Play operation.

The O701 is designed to collect data and easy to integrate into existing systems through serial communication like RS-485 or analog outputs like 0-10 V / 4-20 mA. The O701 supports Modbus, CANbus protocols and a system fault relay. The module is designed with capability to add additional application logic for customer specific applications. It is designed with the needs of Monitoring, Test platforms or Industrial Process monitoring integration needs. It has the data integration capability of multiple test platforms. Industry standard drivers available for a quick and easy connect to most popular laboratories softwares. There is a dedicated team for application specific customizations for fiber optic sensors, monitor configuration and software integration to simplify the data collection of testing and monitoring applications.

Applications

- Power Electronics: Junction Temperature (Tj), IGBT, Diode and MOSFET temperature testing
- Power Module Thermal Profiling
- Electric Vehicle: Inverter and Converter Testing and Design Optimization
- Variable Frequency Drive (VFD): Power Cell temperature monitoring and control
- Semiconductor: High Voltage / Current Power Supply Testing, High Power Density PCB thermal profiling
- Medical: Ablation, research and drug testing

Benefits

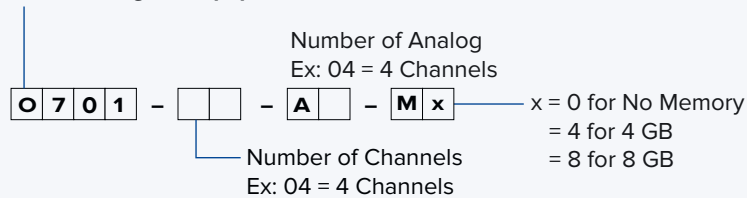
- Suitable for OEM-type applications.
- Sensors do not require any recalibration
- No shift over time, high stability and repeatability
- Robust packaging
- Each Monitor comes with a complete NIST calibration certificate
- Software designed for integration into test platforms
- Robust datalogging and Analytics
- Customizable according to customer specific applications
- Suitable for OEM-type applications.

TECHNICAL SPECIFICATIONS

Measurement Range	-80 °C to +300 °C (cryogenic 4 °K range optional)
Measurement range (<i>Optional Range extensions</i>)	Down to 4 °K / Up to +300 °C
Resolution	0.1°C
Accuracy	±1.0 °C (+/- 0.2 °C in relative temperature)
Number of Channels	1 - 4 Channels
Logging	1 sec interval on USB / Micro SD card
Config port	USB (to use with Rugged connect windows software)
Max # of Channels	Expandable to 128 Channels, Daisy chain up to 32 units (with Modbus, Canbus)
Communication Ports	RS-485 (RS-232 optional converter) with Modbus , CANbus
Power	24/48 Vdc Option for 12Vdc
Memory	MicroSD external memory slot (up to 2 TB)
Analog output module	Fully configurable Four (04) 0-10 V / 4-20 mA module (Optional)
Dimensions	4.72" x 6.34" x 1.89" 120 x 161 x 48 mm
Scan rate	30 Hz (33ms) / channel (Optional: Faster scanning rates available)
Operating temp	-40 to 72 °C
Storage temp	-40 to 85 °C
Humidity	95% Non Condensing
Relay	System Fault relay (5A)

ORDERING CODE

O701 = Original Equipment Module, 701 Series



Rugged Monitoring Services

Rugged Monitoring provides customization of sensors, monitors & software. In addition we offer on-site commissioning services, maintenance contracts and technical support to all customers worldwide.



About Rugged Monitoring

Industry leading team of fiber optic experts with 100+ years of combined experience committed to delivering customizable solutions for challenging applications. We offer a range of reliable, high performance, customizable sensors and monitoring solutions that are immune to external influence.