MRI, Microwave, Industrial and Research Temperature Measurement

Scalable High-Performance Fiber Optic Temperature Sensing

The FTX-300-LUX+ fiber optic signal conditioner offers exceptional value combined with industry leading speed and accuracy. Whether your application requires one, two, or three sensing channels, the FTX-300-LUX+ transmitter is ideally suited for demanding research applications in MRI, microwave, and high electro-magnetic field environments. It can read optical sensors with tip diameters as small as 350 microns over distances up to 50 meters. It connects quickly to your personal computer with a standard USB cable to provide real-time temperature trending and data logging with the optional OSENSAView Pro software or LabView VI. The 4-20mA analog outputs have 16 bit resolution with configurable alarms for easy connection to a PLC, temperature controller, solid state relay, or digital display. Multiple signal conditioners can be connected in series and mounted on a standard 35mm DIN rail.

FTX-300-LUX+ Temperature Transmitter

Product Specifications

Model Name	FTX-100-LUX+	FTX-200-LUX+	FTX-300-LUX+
Number of Channels	1	2	3
Analog Output	Isolated 4-20mA		
Digital Interface	USB & Isolated RS-485		
Measurement Range	-70°C to +450°C		
Resolution	0.01°C		
Measurement Accuracy*	±0.05°C from 0 to 40°C Ambient		
Update rate	30-90 Hz		
Comm. Protocol	Modbus RTU, Half Duplex		
Status Indication	3 Color Flashing and Solid LEDs		
Operating Humidity	0 to 90% RH (Non-Condensing)		
Operating Environment	-40°C to +65°C		
Power	12-24 VDC (2.5W max)		
Dimensions	114mm Tall x 22.5mm Wide x 102mm Long		
Mounting	35mm DIN Rail		
Configuration Software	OSENSAView or OSENSAView Pro		
Product Compliance	CE c(UL)us		

* Overall system accuracy depends on fiber optic probe style and calibration. With individual probe calibration it is possible to achieve system accuracies of ±0.10°C. Typically, probes are sold with uncalibrated interchangeable accuracies of ±0.5°C or ±1.0°C.

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Specifications subject to change without notice.
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High Temperature Microwave and Inductive Temperature Measurement

Scalable High-Performance Fiber Optic Temperature Sensing

Whether your application requires one, two, or three sensing channels, the FTX-300-LUX+HT transmitter is ideally suited for high temperature measurement applications offering exceptional performance where traditional thermocouples fail. It reads OSENSA's proprietary high temperature fiber optic sensors targeting applications between 350°C and 800°C. It supports Modbus communications over an isolated RS-485 connection and also connects to a personal computer with a standard USB cable to provide real-time temperature trending and data logging with the optional OSENSAView Pro software. Also supported are Python, Matlab and LabView libraries. The 4-20mA analog outputs have 16 bit resolution with configurable alarms for easy connection to a PLC or temperature controller. Multiple signal conditioners can be connected in series and mounted on a standard 35mm DIN rail.

FTX-300-LUX+HT Temperature Transmitter

Product Specifications

Model Name	FTX-100-LUX+HT	FTX-200-LUX+HT	FTX-300-LUX+HT
Number of Channels	1	2	3
Analog Output	Isolated 4-20mA		
Digital Interface	USB & Isolated RS-485		
Measurement Range	0°C to +800°C		
Resolution	0.1°C		
Measurement Accuracy*	±0.5°C from 350°C to 800°C		
Update rate	30 Hz		
Comm. Protocol	Modbus RTU, Half Duplex		
Status Indication	3 Color Flashing and Solid LEDs		
Operating Humidity	0 to 90% RH (Non-Condensing)		
Operating Environment	-40°C to +65°C		
Power	12-24 VDC (2.5W max)		
Dimensions	114mm Tall x 22.5mm Wide x 102mm Long		
Mounting	35mm DIN Rail		
Configuration Software	OSENSAView or OSENSAView Pro		
Product Compliance	CE c(UL)us		

* Overall system accuracy depends on fiber optic probe style and calibration. With individual probe calibration it is possible to achieve system accuracies of ±0.5°C, but accuracy is less at temperatures below 350°C and may only be ±1.0°C near room temperature.

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