

# FTX-300-LUX+CRYO

## Fiber Optic Temperature Transmitter

### Industrial and Research Temperature Measurement

#### TECHNICAL SUPPORT

OSENSA Innovations offers on-site support, commissioning, and training for all of its products. For immediate assistance with any technical issue, please contact [support@osensa.com](mailto:support@osensa.com) or call 1-888-732-0016.

#### WARRANTY INFORMATION

OSENSA Innovations stands behind its products and services. All fiber optic temperature probes and signal conditioners ship with a full one year repair or replacement warranty. You may also purchase an extended five year warranty. Some conditions apply.

#### CUSTOM OEM SOLUTIONS

OSENSA offers cost-effective design and consulting services at discounted rates for high-volume OEM customers. Let the engineering team at OSENSA Innovations help you rapidly develop custom probes for your process control application. OSENSA's team has many years of experience designing fiber optic temperature probes for various industrial environments.

#### FURTHER INFORMATION

For more information on any of our products or services please visit our website: [www.osensa.com](http://www.osensa.com) or email: [info@osensa.com](mailto:info@osensa.com).



FTX-300-LUX+CRYO  
Temperature Transmitter

#### Scalable High-Performance Fiber Optic Temperature Sensing

Whether your application requires one, two, or three sensing channels, the FTX-300-LUX+CRYO transmitter is ideally suited for ultra-low temperature measurement applications offering exceptional performance where traditional thermocouples fail. It reads OSENSA's proprietary low temperature fiber optic sensors targeting applications between -220°C and 450°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.

### Product Specifications

| Model Name             | FTX-100-LUX+CRYO                                       | FTX-200-LUX+CRYO | FTX-300-LUX+CRYO |
|------------------------|--------------------------------------------------------|------------------|------------------|
| Number of Channels     | 1                                                      | 2                | 3                |
| Analog Output          | 16-bit, 3kV Isolated 4-20mA                            |                  |                  |
| Digital Interface      | USB & Isolated 3-wire RS-485                           |                  |                  |
| Optional Relays (+R)   | 2x Form A, 2A, 30VDC (threshold / differential alarms) |                  |                  |
| Measurement Range      | -220°C to +450°C                                       |                  |                  |
| Resolution             | 0.01°C                                                 |                  |                  |
| Measurement Accuracy*  | ±0.05°C                                                |                  |                  |
| Update rate            | 30-90 Hz                                               |                  |                  |
| Communication Protocol | Modbus RTU, Half Duplex, 9600 to 115200 baud           |                  |                  |
| 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     | RoHS CE cULus                                          |                  |                  |

\* 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.