New Standard for
Fiber Optic Sensing

DTSX200 Distributed Temperature Sensor (DTS)

Smart DTS Solution
for Oil and Gas

Intelligent and Modular System

Yokogawa sets a new standard for Distributed Temperature Sensing (DTS) in Performance, Price, and Intelligence that reduce operating cost and increase production. The DTSX200 modular design allows interchangeable configurations up to 16 channels, Yokogawa STARDOM Field Controller option, and multiple power supplies. Yokogawa is the only supplier that can provide an integrated automation solution with DTSX200, DCS, SCADA, Field Instruments and outdoor housing. The DTSX200 is designed for Oil/Gas conventional and unconventional in-well applications, LNG and Refinery facilities, Pipeline and Tank leak detection, and other thermal monitoring applications. The DTSX200 can be used in all regions world-wide with an Operating Temperature of -40 degree C to +65 degree C. You can expect to get the same high performance and reliability found in Yokogawa products.

Features

- Easy to integrate in process control system
- Wide Temperature range operation
- Compact and low power consumption
  - Measure up to 6km
  - 2, 4, and 16 channels (modular optical switch)
  - Ethernet and Serial Modbus Communication
  - LAS 2.0 and WITSML 1.3.1.1 Data Format
  - STARDOM Field Controller (NFCP050) option
  - Outdoor housing with Solar Panels, Batteries, and Wireless Communication is applicable.

LAS is Long ASCII Standard.
WITSML is Well site Information Transfer Standard Markup Language.
DTSX200 Distributed Temperature Sensor

**Specifications**

### Distance
- Measurement distance range: 1 to 6 km
- Sampling resolution: 10 cm to 1 m
- Spatial resolution: 1 m

### Temperature
- Measurement temp. range: -200 to 800 °C (depending on optical fiber characteristics)
- Temperature resolution (°C, typical)
  - Time: 1 km, 3 km, 6 km
  - Range: 0.07, 0.15, 0.5

### Optical conditions
- Optical connector and fiber: E2000/APC, 50/125Gi optical fiber

### Communication Interface
- Modbus: Serial, Modbus/TCP
- LAN: 10 BASE-T or 100 BASE-T

### General specifications
- Operating temperature: -40 to 65°C (-40 to 149°F)
- Supply voltage: selectable by Power Supply
- Power consumption: 16 W (All temperature range)
- Laser Safety: IEC 60825-1 Class 1M, FDA 21CFR Part 1040.10

### Optical Switch module (option)
- Channels: 2ch DTOS2, 4ch DTOS4, 16ch DTOS16

### General specifications
- Operating temperature: DTOS2 and DTOS4
  - 0 to 50°C (32 to 122°F)
- DTOS16
  - -40 to 65°C (-40 to 149°F)

### Application Software
The DTSX200 Control Visualization Software (DTAP200) is used to control the DTSX200 and visualize DTS data on a PC.

### Ordering Information
DTSX200 Distributed Temperature Sensor
- DTSX200-NOEN E2000/APC
- Base module for DTSX200
- DTSXM10-NO Standard type
- Optical Switch module
  - DTOS2-NOEN 2ch, E2000/APC
  - DTOS4-NOEN 4ch, E2000/APC
  - DTOS16-NOEN 16ch, E2000/APC
- Power Supply
  - Be selected from NFPW426, NFPW441, NFPW442, NFPW444.
- Notes: Please contact us about ISA Standard G3 option.

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**Selection Guide**

Only necessary modules need to be selected for application.

![Selection Guide Table](image)

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