

FF DTS-01

DISTRIBUTED OPTICAL FIBER TEMPERATURE SENSOR (01 BASIC)



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FEATURES

- ▶ Can continuously measure temperature along the line up to 12 km.
- ▶ Operates in a wide temperature range from -200°C to 450°C.
- ▶ With a 4-channel structure, it can monitor multiple zones simultaneously (upgradable to 16 channels).
- ▶ Monitors temperature changes on the line in detail with ± 0.4 m spatial resolution.
- ▶ Provides reliable temperature measurement with $\pm 0.1^\circ\text{C}$ accuracy and 0.01°C resolution.
- ▶ Offers a user-friendly interface with a 7-inch multi-touch screen and 2D/3D visualization.
- ▶ Can be accessed via a web browser from all common operating systems thanks to the built-in web server.
- ▶ Supports automatic Raman calibration, automatic zoning, and one-click software upgrade.
- ▶ Enables remote monitoring and cloud-based global access via RJ45 or 4G/5G.
- ▶ Provides approximately 8 hours of backup power with the built-in battery.

TECHNICAL SPECIFICATIONS

Optical fiber type	Multimode 62.5um/125um (compatible with 50um/125um)
Measuring channel	4 channels (optional up to 16 channels)
Measuring distance	≤ 12 km
Spatial resolution	± 0.4 m
Position accuracy	± 0.4 m
Sampling interval	0.4 m
Alarm response time	≤ 3 seconds
Measuring time	≤ 1 s/km
Temperature range	-200°C to 450°C
Temperature accuracy	$\pm 0.1^\circ\text{C}$
Temperature resolution	0.01°C
Operating voltage	DC24V
Power consumption	$\leq 10\text{W}$
Communication interface	1 RJ45, 2 RS485, 2 USB, 8/32 relays
Laser safety class	CLASS 1
Operating temperature	-20°C to 60°C
Storage temperature	-20°C to 70°C
Dimensions	430 × 346 × 90 mm
Weight	8 kg