



国兴汇金  
GUO XING HUI JIN

# Distributed Fiber Analyzer

## DFA-M8000





## Product Introduction

Specifically designed for oil and gas production monitoring, the DFA-M8000 serves as a sensitive "nerve" along oil and gas production pipelines. Utilizing distributed fiber optic sensing technology, it provides comprehensive and high-precision real-time temperature monitoring throughout the entire wellbore. Whether in vertical wells with significant temperature changes or horizontal wells with subtle variations, the DFA-M8000 captures every detail, ensuring safe and efficient production operations.

## Product Features

- Highly reliable modular system design.
- Loop length up to 5 km and single-channel length up to 10 km.
- Sampling intervals of 0.25 m and 0.5 m available.
- Spatial resolution of 1.0 m.
- Supports combined measurement of standard and high-temperature fibers.
- Flexible system networking modes.
- Industrial standard output interfaces.
- Suitable for harsh working environments.
- Customizable system requirements.

## Application Fields

- Single logging in oil and gas wells.
- Permanent logging in oil and gas wells.
- Downhole temperature monitoring.
- Pipeline integrity monitoring in gas storage facilities.
- Oil and gas pipeline integrity monitoring.

## Advantages

- **Real-time Monitoring:** Capable of monitoring temperature changes in real time and responding promptly to anomalies.
- **High-Precision Measurement:** Provides high measurement accuracy and precise location of temperature anomalies.
- **Long-Distance Monitoring:** A single optical fiber can cover a monitoring range of up to 10 kilometers.



## Technical Specifications

Data Acquisition	
Spatial Resolution	1m
Temperature Measurement Range <sup>①</sup>	-40°C ~ 300°C
Sampling Intervals	0.25m / 0.5m
Temperature Measurement Accuracy <sup>②</sup>	≤ ±0.15°C
Temperature Resolution <sup>③</sup>	≤ 0.3°C@30s, 10km
Maximum Length	10km
Number of Channels <sup>④</sup>	2/4/8
Optical	
Fiber Type	50/125 μm MMF
Interface Type	E2000 APC
Laser Wavelength	1064nm
Chassis	
Specifications	3U
Instrument Dimensions(H*W*D)	175 x 450 x 530 mm
Weight	16kg
Material	Metal
Transport Box Dimensions(H*W*D)	225 x 600 x 680 mm
Transport Weight	35kg
Environmental	
Operating Temperature	-20°C ~ 40°C
Operating Humidity	< 95% RH Non-condensing
Storage Temperature	-40°C ~ 65°C
Storage Humidity	< 95% RH Non-condensing
Electrical and Hardware Interfaces	
Power Supply	110 ~240 V AC
Power Consumption	25W
Ethernet Port	1x100Mbps
Modbus	MODBUS TCP
Built-in Storage	1TB
Software	
Software Name	DfaStudio

① The temperature measurement range depends on the actual usable temperature range of the sensing optical fiber. Based on the temperature resistance of the protective coating on the optical fiber, there are three different types of fibers: standard, medium temperature, and high temperature. Medium and high-temperature fibers can be specially calibrated as needed.

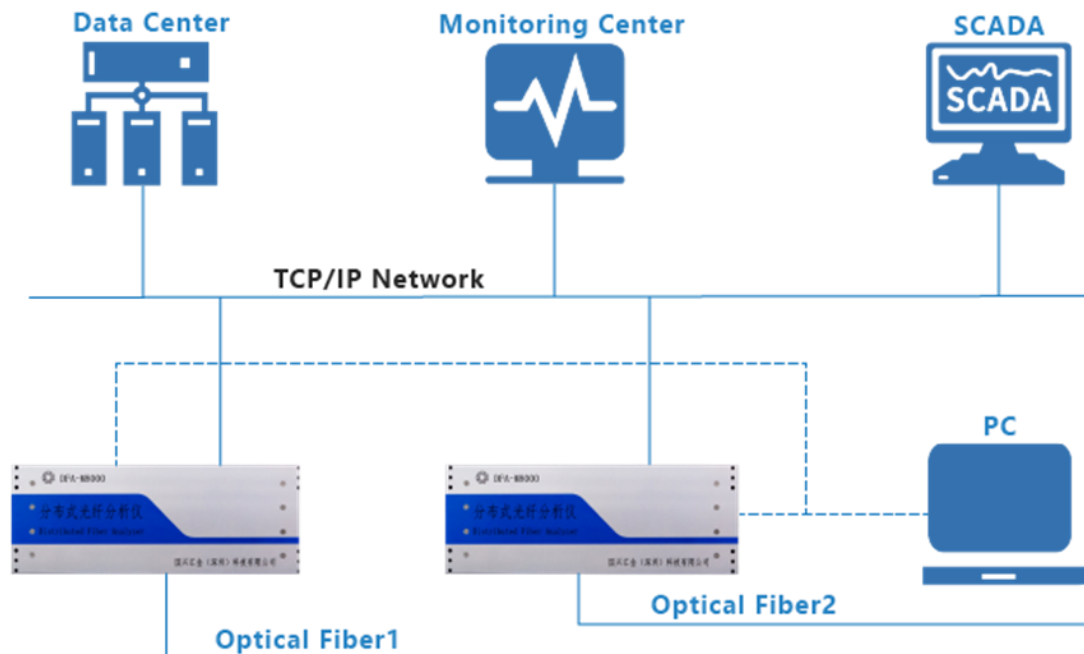
② The equipment's operating temperature range is from -20°C to 40°C

③ A higher resolution custom version can be provided.

④ Custom versions with 2, 4, or 8 channels can be provided.



## System Connection Example



## Installation and Maintenance

- **Installation:** Simple and quick installation with no need for complex wiring; a single passive optical fiber achieves long-distance monitoring.
- **Maintenance:** Maintenance-free, long service life, wide coverage, and precise detection of all temperature anomaly events.

## Technical Support and Services

Guoxing Huijin (Shenzhen) Technology Co., Ltd. provides comprehensive technical support and after-sales services, including but not limited to:

- **Technical Consultation:** Offering product technical consultations and solutions.
- **Installation Guidance:** Providing on-site installation guidance services.
- **Training Services:** Offering training services for operators.
- **After-sales Services:** Providing product repair and maintenance services.

Note: This specification sheet is for reference only. Specific product parameters and features may vary depending on the model and customer requirements. For more detailed information, please contact Guoxing Huijin (Shenzhen) Technology Co., Ltd. or an authorized distributor.