

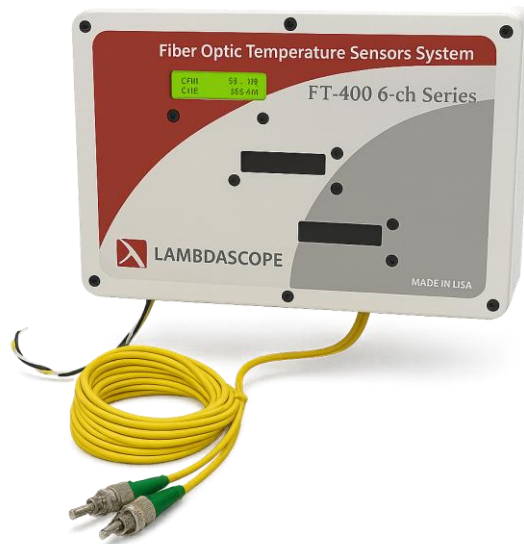


LAMBDA SCOPE

(美国) 蓝達光儀

FT-400 Multi-Channel Fiber Optic Temperature Sensor System

多通道光纤温度测量系统简介



KEY FEATURES (主要特性):

- Temperature measurement range from -100 to 250 °C; 可测温动态范围大;
- Accuracy of better than +/-2 °C; 测量精度高;
- Thermal probe can be selected to meet environmental requirements from medical to heavy industrial applications; 测温探头光纤小型化, 既可满足高可靠度的工业要求, 也可调适为医疗设备的特殊应用;
- The length of lead fiber can be up to 20m for the convenience of the probe placement; 光纤尾线长度可达 20 米, 方便探头安装放置;
- Sampling time is ~2min.; 温度采样速率约为 2 分钟;
- 1310nm F-P laser diode; 激光光源为 1310nm 波长的半导体激光;
- USB or RS485 connection to PC using user-friendly GUI; 与系统联接采用 USB 或者 RS485 接口, 操作简便;

- Ready for multi-location measurements up to 256 points. 该传感器设计可以实现单机配多探头多点（256 点）测量之用途，极大减少产品使用成本，扩大应用范围。

INTRODUCTION（公司及产品简介）

LAMBDA SCOPE designs and manufactures innovative high performance fiber optic measurement solutions for industrial applications. Located in the heart of Silicon Valley in California, our well-experienced team of engineers bring state-of-the-art technology to address the challenges facing our world today. We offer a comprehensive list of fiber optic sensor solutions based on our innovative fiber optic technologies. Our engineers would like to hear from you if you have any special requirements for your new product innovations and applications.

蓝达光仪公司是一家总部位于美国硅谷的高科技创新研发及生产企业，多年来一直以其创新的技术及产品为多家美国及欧洲世界顶级公司和国家实验室提供精密光纤测量服务。本公司最新推出的 FT-400 型光纤温度测量仪拥有美国发明专利，是一台全光纤高可靠性多通道温度测量传感器。其设计原理极简直观，以光纤材料本身固有的热膨胀为基础，采用独创的光信号处理，并配合精密算法，将微弱的光纤热膨胀信号转换成可靠的温度测量信号。因为光纤材料本身特有的高可靠性及低成本的特点，使得该技术与目前已有的光纤测温产品（FBG 或者拉曼光谱技术）相比，具有显著的性能价格优势，并且实用可靠。

APPLICATIONS（应用场景）

- Multi-point temperature measurement in transformers; 变压器及其配置的多点温度测量；
- EMI immune medical applications. 特殊医疗设备应用。

GENERAL CHARACTERISTICS（外形及接口配置）

Dimensions (D x W x H)	300 mm x 224 mm x 90 mm*
Warm-up Time	1.5 hr
Communication Interfaces	USB or RS-485
Power Consumption	<5W
Operating Temperature	-20 to 80 °C
Storage Temperature	-40 to 85 °C

Note:

*The size can be made smaller to fit into an existing system. 产品外形可根据客户要求修改。

KEY SPECIFICATIONS（产品性能）

Model Type	FT-400
Default Fiber Type	SM (单模光纤)
Wavelength	1310nm
Temperature Range	-100 to 250(°C)
Temperature Accuracy	+/-2 °C *
Fiber Probe Size	40 mm (直径) x 3 mm
Fiber Pigtail Length	Up to 20m
Sampling Time	~2 min

DESIGN OF FIBER PROBE:（光纤探头选择）

光纤探头采用普通单模光纤，光纤材料耐高温、化学腐蚀，具有高可靠性而且成本低廉。考虑到用户需求，探头采用特殊设计，其尺寸为 40mm 直径，厚度为 3mm，适合安装在狭小紧密空间。所有材料都是绝缘的。



MULTIPLE SENSOR NETWORK:（千点投放网络）

The multi-channel sensor systems are designed with a large scale outside plant in mind where thousands of hot spots located in harsh industrial environment. These hot spots may be prone to strong EMI and require the sensors be insulated. Our multiple sensor systems are perfect for such applications where the hot spots can locate up to 1000m. The multi-sensing information can be directly fed into the central control station to facilitate constant monitoring of the temperature.

考虑到大型工业应用场景，本产品的的设计可以延展至多余千点安装投放，各测量点可连接至控制中心，便于及时监测处理。

ORDERING INFORMATION (询价方式)

请发 Email 至: info@lambdascope.com

P/N: FT-400-EVAL: Fiber Optic Temperature Sensor evaluation device for outdoor applications is available for order. It includes a unit of FT-400, a reference thermometer (Omega HH127 with thermal couple probe) and GUI.