

ULTIMA™ DTS

The ULTIMA DTS line is the world's highest performing family of Distributed Temperature Sensors, now fanless with enhanced data storage capacity and low power consumption. The ULTIMA offers the finest temperature resolution and sampling resolutions, from 0.01 °C and 25cm, over a wide operating temperature range. It is a standalone unit with an on-board PC and a user-friendly software interface. It is available with either 4 or 8 optical channels. The units are optimised for spatial and temperature resolution for the following ranges: 2/5/10km variable range model M, 10/20/35 km variable range model L. The system can be configured to produce both single-ended and double-ended measurements. Minimum measurement time is 1 second.



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Sensing Capabilities

| Unit | Range | Channels | Resolution | | Measurement Time | Fibre Type | External Reference |
|---------------|-------------|----------|------------|-------------|------------------|--------------------|--------------------|
| | | | Sampling | Temperature | | | |
| ULTIMA DTS M | Up to 10 km | 4 or 8 | 25/50cm | 0.01°C | ≥1 sec | 50/125µm multimode | 2 x Pt-100 probes |
| ULTIMA-DTS L | Up to 35 km | | 50cm | 0.03°C | | | |
| ULTIMA-DTS SM | Up to 30 km | | | 0.1°C | | 9/125µm singlemode | |

System

| | | | |
|-----------------------------|-----------------------|--------|-----|
| Operating system | Windows 10 IoT LTSC | | |
| Network | 2 x 1 Gb/s Ethernet | | |
| Storage | Internal SSD [480 GB] | | |
| Control and Data Monitoring | ULTIMA DAQ | Viewer | SDK |

Operating Environment

| | |
|-------------|-----------------------|
| Temperature | -5° to +50°C |
| Humidity | 10-85% Non-condensing |

Power Supply Requirements

| | |
|------------------------|----------------|
| Nominal voltage range | 100 to 240 VAC |
| Power rating measuring | ≤ 60 W |
| Power rating idle | 15 W |

Physical Dimensions

| | |
|-------------------------|---------|
| Height (feet to lid) | 191 mm |
| Width (brackets closed) | 436 mm |
| Depth | 457 mm |
| Weight | 14.1 kg |

Certification & Compliance

| Safety | EMC | FCC | CE Mark |
|--|-----------------|--------------------------------|---|
| Class 1 Laser Product IEC 60825-1: 2014 EN 61010-1: 2010 | EN 61326-1:2013 | CFR 47:2008 Part 15 Sub Part B | 2014/35/EC (safety) 2014/30/EC (EMC) |

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