INDUSTRY LEADING PERFORMANCE

The Sentinel DTS is the most technologically advanced and reliable distributed temperature sensing system today.

The system is packaged in a standalone unit which contains both the sensing optoelectronics and an onboard PC. The system operates with an intuitive user-friendly software interface (based on Windows OS), making it a simple-to-use and easily transportable system. The system has been designed with safety in mind and has been tested to some of the industry's most rigorous standards. The system is optimised for measurements on single-ended cable installations, but with the addition of a multiplexing module it can easily be configured to produce double-ended measurements. User configurable zones and alarms functionality are also available for a wide variety of applications.

The Sentinel DTS is a Raman-based sensing system. Sensornet's DTS-XR is offered in both multimode and singlemode versions.

Summary of sensing capabilities

Range	Sentinel DTS Model	Description	Temperature Resolution*	Spatial Resolution	Sampling Resolution
0 - 30 km	Sentinel DTS-XR Singlemode	Extreme range	0.05˚C	2m	1m

*With 1m spatial resolution. Please see following page for more details regarding the capabilities of the Sentinel product range.

Operating environment

Operating Temperature	Storage Temperature	Humidity
+5˚C to +40˚C	-15°C to +65°C	5% to 95% relative humidity, non-condensing

Power requirements

AC Power	DC Power	Power Consumption
100V - 240V, 50Hz - 60Hz	24V or 48V supply option available	120W maximum

Physical dimensions

H x W x D*	Weight
180 x 435 x 480mm (7.1 x 17.1 x 18.9")	21kg (46lb)

*fits in standard 19" rack mounting.

Certification & compliance

Safety

The Sentinel PowerX DTS has been independently classified to EN 60825-1 (2001-03) as a Class 1M laser product.

EMC

EN61326:1997/A1:1998; Conducted Emissions: Class B; Radiated Emissions: Class A**; EN 61000-4-3:1996; EN 61000-4-6:1996; EN 61000-4-4:1995; EN 61000-4-2:1995/A1:1998/A2:2001; EN 61000-4-11:1994; EN 61000-4-5:1995; EN 61000-3-2:1995; EN 61000-3-2:2000; EN 61000-3-3:1995 ** Excluding monitor and keyboard
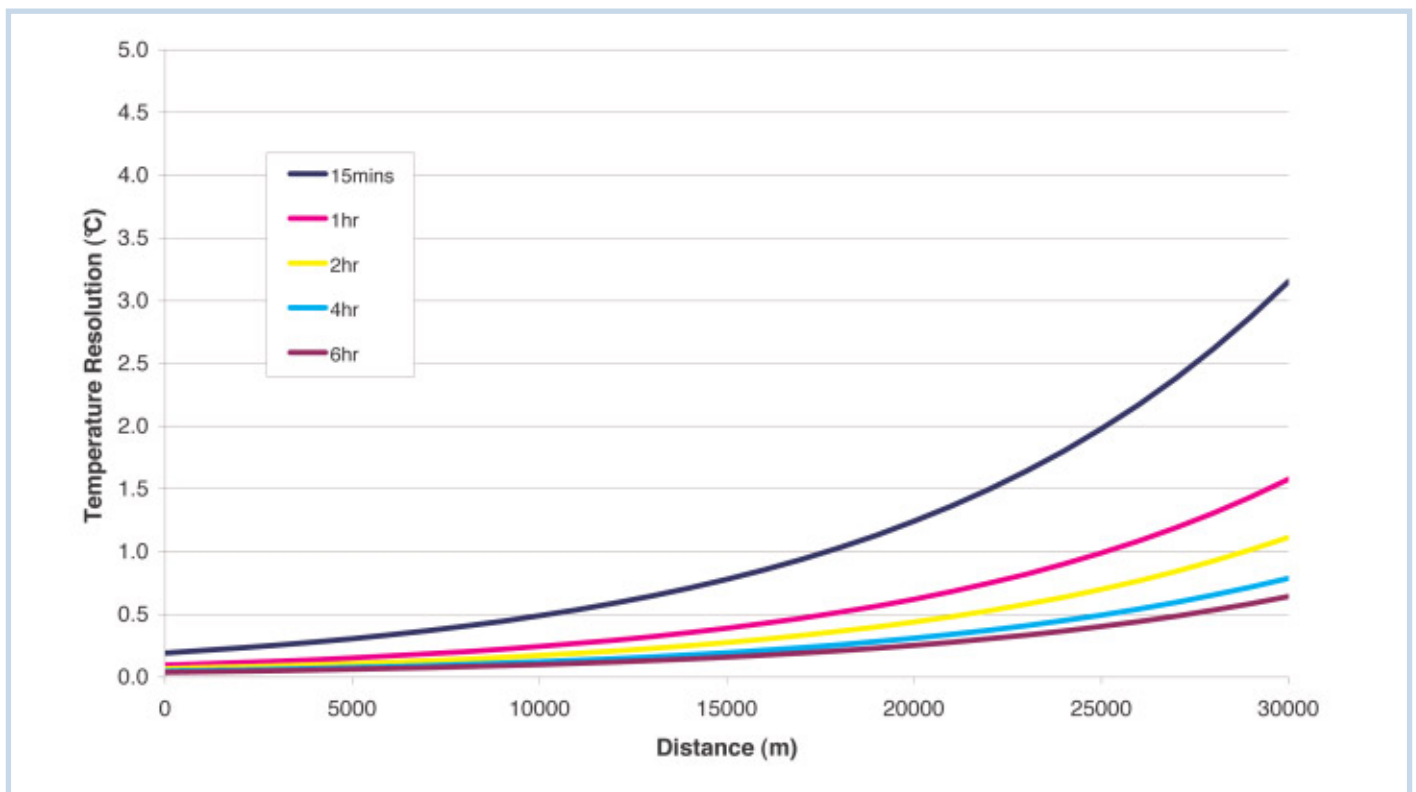
CE Mark

Accordance with 89/336 EEC EMC Directive Accordance with LVD 72/23 EEC Directive: EN 41003; EN 50178; EN 60065; EN 60825-1; EN 60950; EN 61010-1

sensornet

PRODUCT CAPABILITES

With the Sentinel DTS systems (as with all DTS systems) there is a trade off between temperature resolution, spatial resolution, range and speed of measurement (eg. the more time you allow the DTS to acquire data, the better the temperature resolution).

Using the intuitive calibration wizard the user is able to define the required spatial resolution, measurement time and range - and this will define temperature resolution achieved by the system. The following graph illustrates the temperature resolution achieved for the singlemode Sentinel DTS-XR. The graph below shows a range of measurement times: 15 minutes, 1 hour, 2 hours, 4 hours, and 6 hours. Further specifications

Sentinel DTS-XR Singlemode Performance

Communication options available

The Sentinel DTS has various communication options available:

- Ethernet
- Volt free relay contacts
- OPC
- Modbus
- RS-232

Data storage is onboard. The user is able to copy data to external USB drive. Please contact a Sensornet representative for more information.

BE SURE WITH SENSORNET

Sensornet offers the widest range of DTS to meet your every monitoring requirement, specific to any need, environment and challenge.

You can rely on us to provide the full solution - from system engineering and design, to installation, data interpretation services, and global support services. We'll take the time to fully understand your business goals and the unique context and physical circumstances of your asset to provide the best solution to you.

BE THERE

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