

PERFORMANCE IN HARSH ENVIRONMENTS

The Oryx⁺ DTS™ offers the most advanced and reliable solution for monitoring in harsh environments.



The Oryx⁺ DTS units, is a compact Distributed Temperature Sensing (DTS) system designed for harsh environments, ideal for monitoring applications from desert to sub-zero conditions.

The Oryx⁺ is an autonomous, low powered device allowing the system to be powered by solar or wind power. Designed to be weather and dust proof, the Oryx⁺ DTS also boasts 4 optical channels to increase system flexibility for cost effective deployment.

Features	Benefits
• Wide Operating temperature	Designed for outdoor installation from desert to sub-zero conditions.
• High performance	Industry leading temperature resolution as fine as 0.004°C enables interpretation in the most difficult applications.
• Fine spatial resolution	1m spatial resolution allows accurate I of changing temperature events.
• Fast measurement speed	Measurements as short as 10 seconds to enable real time monitoring of transient events, particularly in safety critical applications.
• High Capacity Solid State Storage	Data stored on-board in event of communications/power failure.
• Multiple channels	4 channels available to increase system flexibility.
• Low power requirements (12-24V DC)	Enables solar panel / wind power operation. Cost effective performance.
• IP65 rated casing	Weather and dust proof casing. Also available with enclosure IP66 or higher

Summary of sensing capabilities

Range	Oryx ⁺ DTS Model	Description	Temperature Resolution*	Spatial Resolution	Sampling Resolution
0 – 15km	Oryx ⁺ XR15	Medium Range	<0.01°C	1m	1m
0 – 30km	Oryx ⁺ XR30	Long Range	<0.06°C	1m	1m

* Please see following page for more details regarding the capabilities of the Oryx⁺ product range

Optical

Wavelength	1550nm
Average output power	<3mW
Pulse repetition frequency	2-8kHz depending on range
Pulse energy	<0.5μJ
Channels	4
Fibre type	Multimode

Communication and memory

USB	2 x USB3.0
Serial	RS-232/485
Network	10/100/1000 Base TX (RJ45)
Wireless	Satellite and GSM modem, Radio Link
On-board storage	2 x 128Gb SSD

Power requirements

Input Voltage	Power Consumption
12-24V (50-60Hz)	35W operating (10W stand-by)

Environmental

Operating Temperature	Storage Temperature	Humidity
-5°C to +65°C	-20°C to +65°C	5% to 95%

Physical dimensions

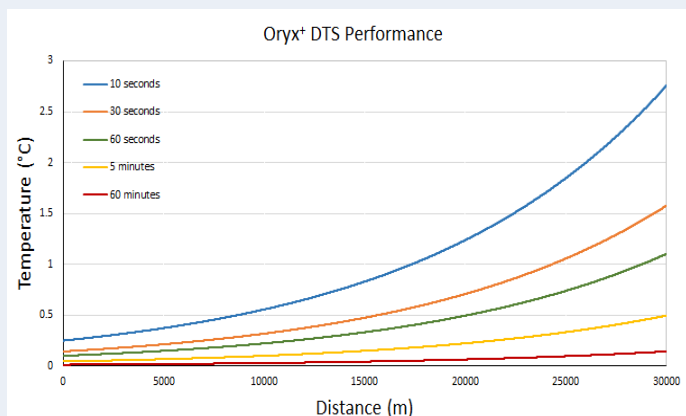
H x W x D*	Weight
130 x 305 x 365mm (5.1 x 12 x 14.4")	8.2kg (18lb)

*NEMA rated enclosure supplied separately on customer request



Performance

The following graph illustrates the temperature resolution* of the Oryx⁺ DTS with sensing range and measurement time. Further specifications are available from SensorNet on request.



* Resolution is considered as 1sigma

Certification & compliance

Safety: The Oryx⁺ DTS has been independently classified to BS EN 60825-1:2014 as a Class 1M laser product.

EMC

Directives 2014/30/EU
EN 61326-1:2013 Lab Equipment; EMC EN55022/2010
and National and EU Harmonised Standards FCC CFR47
Pt15 Class A; ICES-003; EN 61000-4-2:2009;
EN 61000-4-3:2006;

CE MARK

Accordance with 89/336 EEC
EMC Directive Accordance with
LVD 2014/35/EU Directives,
Standards EN 60825-1;
EN 61010-1

ATEX - EX

Zone 2 II (3) G [Ex op is T4 Gc] IIC
equipment in accordance with EN
60079-0:2012; EN 60079-28:2015



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.

Visit <https://www.sensornet.co.uk/terms/> for our full Terms & Conditions

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