

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 boosts 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 – 5km	Oryx+SR	Short Range (970 nm)	<0.01°C	1m	1m
0 – 12km	Oryx+XR12	Medium Range	<0.01°C	1m	0.5m
0 – 20km	Oryx+XR20	Long Range	<0.01°C	1m	0.5-1m
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 (971nm for SR)
Average output power	<3mW
Pulse repetition frequency	2-8kHz depending on range
Pulse energy	<0.5µJ
Channels	4

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

Model	DC Power	Power Consumption
SR	12-24V (50-60Hz)	30W operating (10W stand-by)
XR	12-24V (50-60Hz)	35W operating (10W stand-by)

Environmental

Model	Operating Temperature	Storage Temperature	Humidity
SR	-40°C to +65°C	-40°C to +65°C	5% to 95%
XR	-5°C to +65°C	-20°C to +65°C	5% to 95%

Physical dimensions

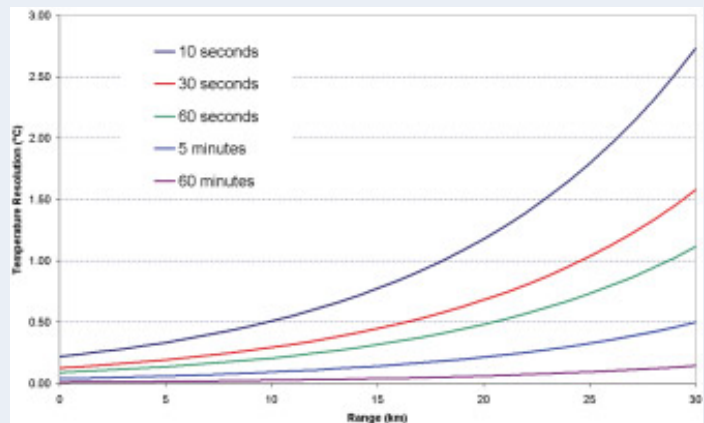
H x W x D*	Weight
130 x 305 x 365mm (5.1 x 12 x 14.4")	8.2kg (18lb)

*it does not include enclosure



Performance

The following graph illustrate the temperature resolution* of each 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.

ATEX

The Oryx+ models are certified Cat.3 and are suitable for use in Potentially Explosive Atmospheres in accordance with the Directive 2014/34/EU Standards: EN 60079-0:2012, EN 60079-28:2015

EMC

Directives 2014/30/EU
EN 61326-1:2013 Lab Equipment; EMC
EN 55022/2010 and National and EU Harmonised
Standards FCC CFR47 Pt15 Class A; ICES-003;
EN 61000-4-2:2009; EN 61000-4-3:2006;

CE

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



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.