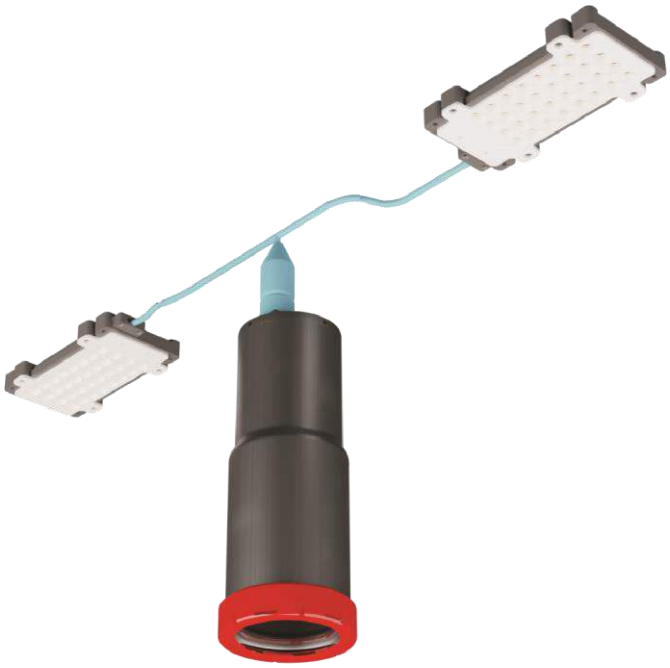
CATHX OCEAN

Product Technical **Data Sheet**



SENTRY

SINGLE SENSOR IMAGING SYSTEM

THE CATHX SENTRY Imaging System is a high-resolution colour camera combined with efficient strobe lights designed for use on towed frames & ROVs and can be accommodated on most types of underwater survey vehicles.

CATHX SENTRY acquires images of unparalleled quality utilising the CATHX unique imaging capturing method. This delivers images free of motion blur at a range of up to 10 meters & speeds of up to 5 knots in favourable water conditions at a depth of up to 6000 meters.

High resolution images from CATHX SENTRY provide comprehensive data for your survey. CATHX SENTRY can be configured to capture UHD stills up to 7 frames per second (FPS) or operate with an optional Coax connector should video format be required. An upgrade to our 3D imaging systems is easily accommodated.

The high-resolution visual data acquired by CATHX SENTRY can be processed with CATHX software providing comprehensive & robust visual data of subsea surveys.

For more information on our FDI® service offerings visit our website.

SENTRY

SENTRY TECHNICAL SPECIFICATIONS

		Standard	Wide Angle*
SYSTEM CAPABILITIES			
Imaging	Optical Sensor	1 x 12MPix Stills Imaging 4096 x 3070 resolution	
Lights	Synchronised Strobe Lights	2 x LED panels or 1 x LED Spine	
OPERATING CONDITIONS			
Target Operations	Seabed survey	Stills Data Capture (Video Optional)	
Operating Range*	Seabed survey	Min range: 2m Max range: 10m	Min range: 1m Max range: 5m
Operating Temperature		-10 to 35 ºC	
Depth Rating		3,000m *6,000m (Optional)*	3,000m
MECHANICAL			
Housing Materials	Optical Sensor LED Panel LED Spine LED Power Bottle	Titanium 6AL-4V Anodized Aluminium (6082-T6) Anodized Aluminium (6082-T6) Titanium 6AL-4V	
Weight*	In Air In Water	Nominal 12Kg Nominal 6.9Kg	Nominal 12.4Kg Nominal 7.7Kg
ELECTRICAL			
Power Requirements	3Hz stills @ 24VDC	Nominal 92W	
Operating Voltages		24 VDC (19 – 36 VDC)	
RECOMMENDED SEPARATIONS			
Stills System	Optical Sensor to LED Panel	800 to 1,400mm at 5m range	
COMMUNICATION			
Ethernet		Gigabit Ethernet	
Time Synchronisation	PPS input	5V 10mA	
	NTP	TCP/UDP	
Navigation	NMEA String	TCP/UDP	
Triggers	Sync Out	5V	
	Sync In	5V	

* Wide angle camera option with distortion correction lens
** Operating Range depends on water conditions & theta angle of laser
*** Total weight includes 1 stills camera, 2 LED panels, 2 LED power bottles and excludes cabling

SENTRY

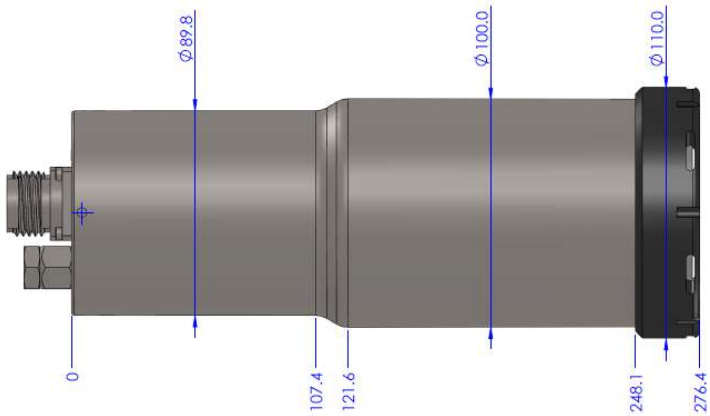
SENTRY TECHNICAL SPECIFICATIONS

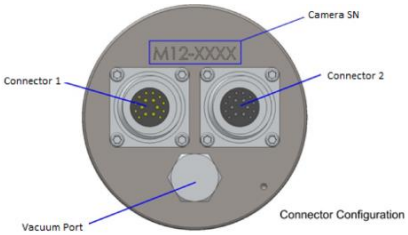
		Standard	Wide Angle*
OPTICAL			
Field of View		H48.5° V29° D56°	H67° V40° D74°
Aperture		f/1.0 - f/22.0	f/2.0 - f/22.0
Sensor Bit Depth		12 bit	
CONTROL & CONFIGURATION			
Configuration		Cathx Mission Planning	
QA & Monitoring		Cathx Mission Control	
DATA CAPTURE			
Still Imaging	JPEG Streaming MJPEG (via UDP)	4096 x 2304 up to 7FPS 2048 x 1152 up to 10FPS	
Video & High Frame Rate Stills (Optional)	JPEG Streaming MJPEG (via UDP) HD-SDI	4096 x 2304 up to 7FPS 2048 x 1152 up to 30FPS 1920 x 1080 @ 30FPS	
LIGHTING			
Lumen Output	Nominal	300,000 Lumen	
LED CCT	Nominal	5,700 Kelvin	
		FWHM @ H53° and V53°	

SENTRY

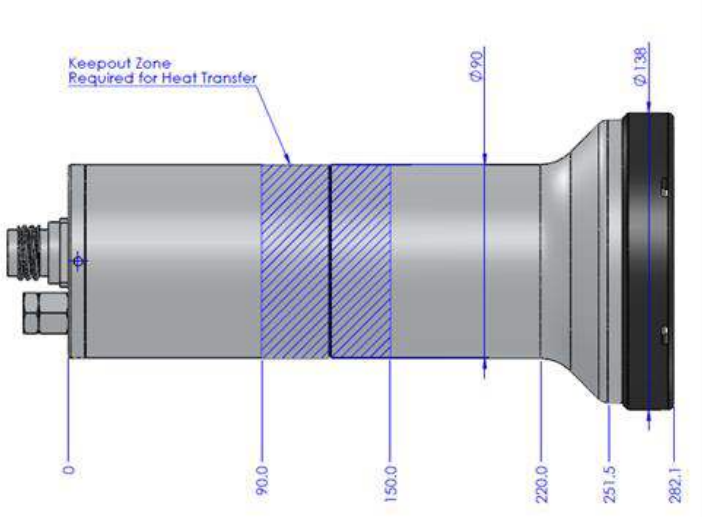
DIMENSIONS

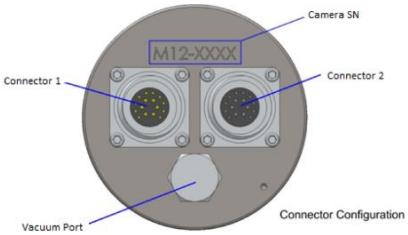
Optical Sensor





Wide Angle Optical Sensor with Distortion Correction Lens

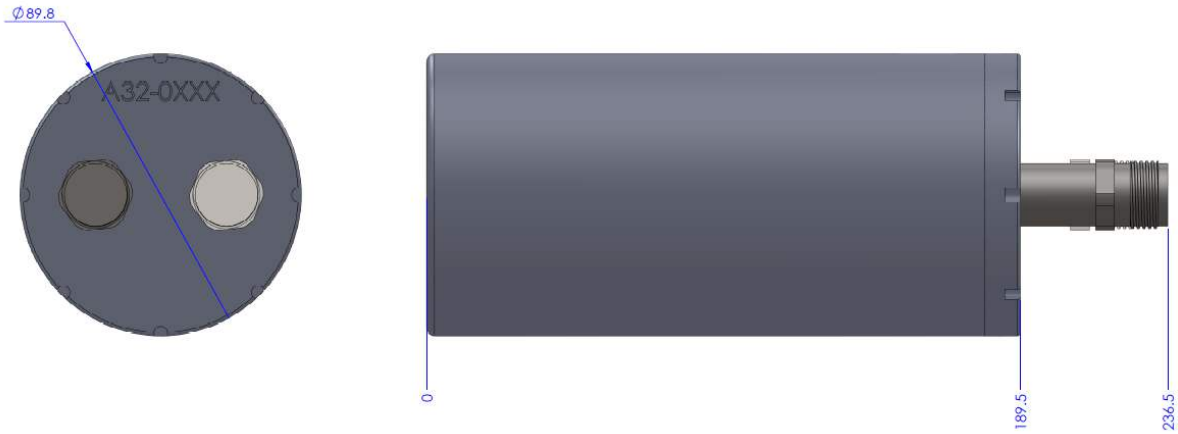




SENTRY

DIMENSIONS

LED – DC Power Bottle

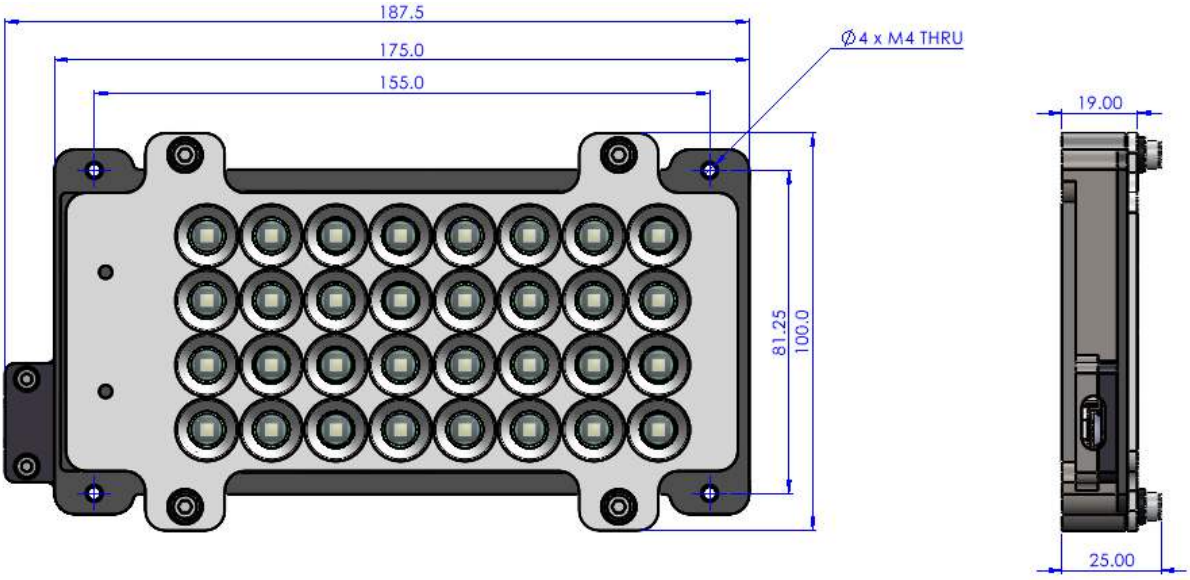


[LED Power Bottle Enclosure for AC supply is 237mm in length.]

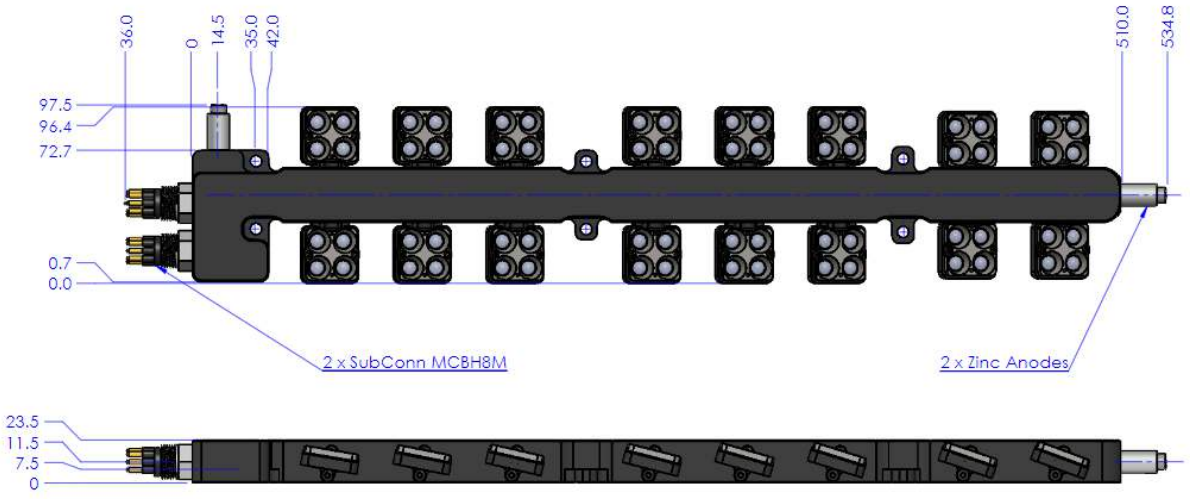
SENTRY

DIMENSIONS

LED Panel – Optimised for ROV Systems



LED Spine – Optimised for AUV Systems



Information is correct as of July 2023.
Technical specifications can change without notice.