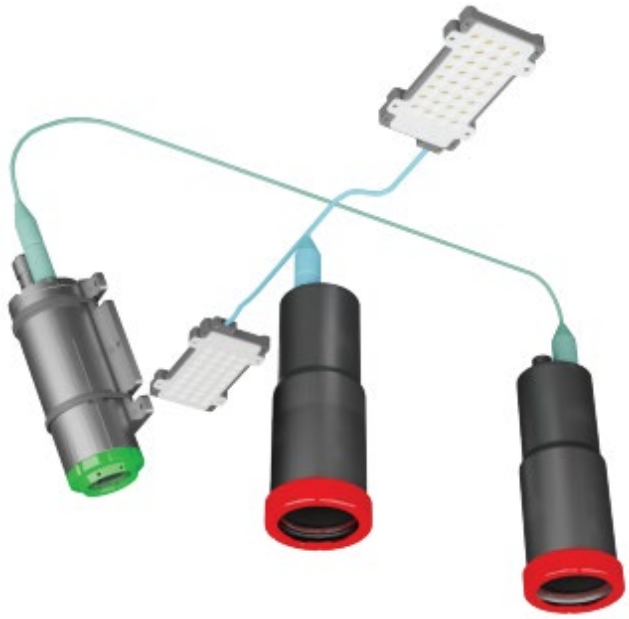


HUNTER II

DUAL SENSOR IMAGING & MEASUREMENT SYSTEM

THE CATHX HUNTER II Imaging & Measurement System is a dual sensor, high-resolution colour camera system with a high power laser and efficient strobe lights designed for use on AUVs and can be accommodated on most types of underwater survey vehicles.

CATHX HUNTER II is a synchronised imaging and measurement system which can capture high-definition imagery and millimetre accurate laser measurement information at a range of up to 10 meters and speeds of up to 5 knots in favourable water conditions at a depth of up to 6000 meters.

CATHX HUNTER II captures up to 7 frames per second (FPS) UHD still images and can simultaneously capture up to 60 lines per second (LPS) laser profiling. HUNTER II can acquire a wide swath path allowing larger areas to be surveyed faster.

The high-resolution visual and laser co-registered measurement data acquired by CATHX HUNTER II can be processed with Cathx software to create accurate 3D visualisations of subsea assets.

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

HUNTER II

HUNTER II TECHNICAL SPECIFICATIONS

		Standard	Wide Angle*
SYSTEM CAPABILITIES			
Imaging	Optical Sensor	1 x 12MPix Stills Imaging 4096 x 3070 resolution 1 x 3D Laser Profiling	
Laser	<800mW diode	1 x 3D Laser Projection	
Lights	Synchronised Strobe Lights	2 x LED panels or 1 x LED Spine	
OPERATING CONDITIONS			
Target Operations	Seabed survey	Stills and Laser data capture (Video Optional)	
Operating Range*	Seabed survey	Max range: 10m	Max range: 5m
Operating Temperature		0 to 35 ºC	
Depth Rating		3,000m *6,000m(Optional)*	3,000m
MECHANICAL			
Housing Materials	Optical Sensor SLG Laser LED Panel LED Spine LED Power Bottle System Pod (Optional)	Titanium 6AL-4V Titanium 6AL-4V Anodized Aluminium (6082-T6) Anodized Aluminium (6082-T6) Titanium 6AL-4V Titanium 6AL-4V	
Weight*	In Air In Water	Nominal 18.9Kg Nominal 11.3Kg	Nominal 19.7Kg Nominal 12.9Kg
ELECTRICAL			
Power Requirements	3Hz stills & 60LPS laser	Nominal 146W	
Operating Voltages		24 VDC	
RECOMMENDED SEPARATIONS			
Stills System	Optical Sensor to LED Panel	800 to 1,400mm at 5m range	
Laser System	Optical Sensor to SLG Laser	1,000 to 1,600mm 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	

HUNTER II

HUNTER II TECHNICAL SPECIFICATIONS

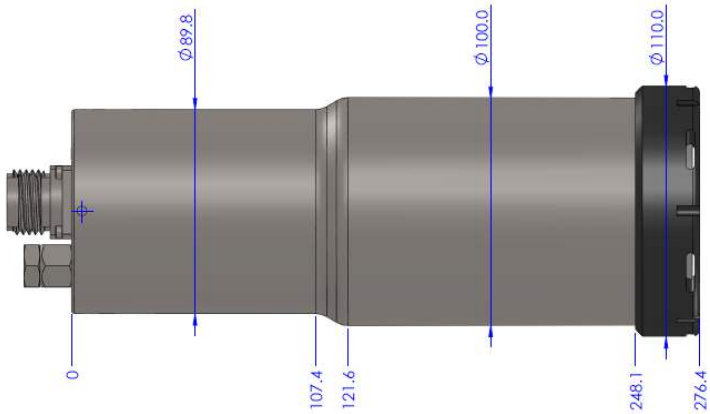
		Standard	Wide Angle*
OPTICAL			
Field of View		H48.5° V29° D56°	H67° V40° D74°
Aperture		f/1.0 - f/22.0	f/2.0 - f/22.0
Sensor Bit Depth		12 Bit	
CONTROL & CONFIGURATION			
Configuration		Cathx Mission Planning	
QA & Monitoring		Cathx Mission Control	
DATA CAPTURE			
Still Imaging	JPEG	4096 x 2304 up to 7FPS 2048 x 1152 up to 30FPS	
Laser Profiling	BIN files	Up to 60LPS	
	CLP2 files	Up to 60LPS	
	UDP Stream	Up to 60LPS	
Laser Resolution*	2 m	Up to 1.3mm	
	4 m	Up to 2.6mm	
LIGHTING			
Lumen Output	Nominal	300,000 Lumen	
LED CCT	Nominal	5,700 Kelvin	
		FWHM @ H53° and V53°	
LASER			
Maximum Diode Power		<800mW	
Wavelength		510 - 530nm (Green)	
NOHD		4.5m in water	
		2.8m in air	
Pressure Activation Switch	Pressure Switch	CRE BRAPS	
	Activation Dept	> 60m	
Safety Classification	Class	4	

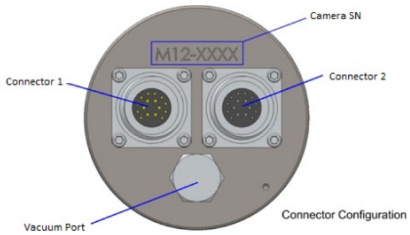
* Wide angle camera option with distortion correction lens
** Operating Range depends on water conditions & theta angle of laser
*** Total weight includes 1 stills camera, 1 laser camera, 1 SLG laser, 2 LED panels, 2 LED power bottles and excludes cabling
**** Laser x-spacing along the laser line

HUNTER II

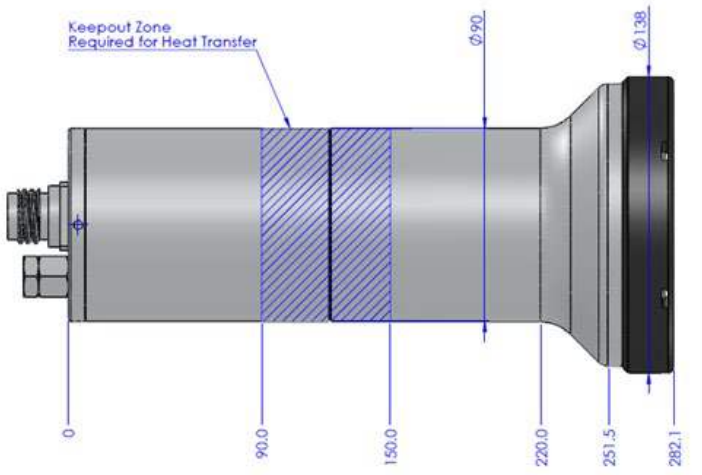
DIMENSIONS

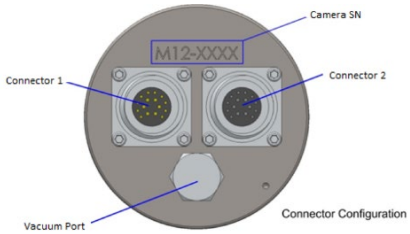
Optical Sensor





Wide Angle Optical Sensor with Distortion Correction Lens

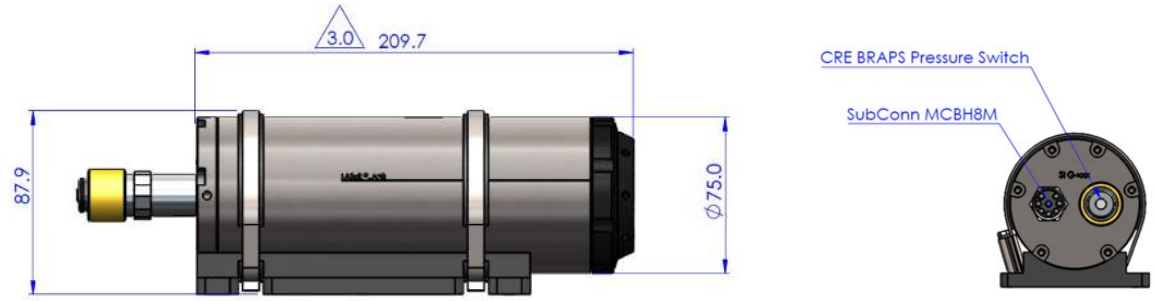




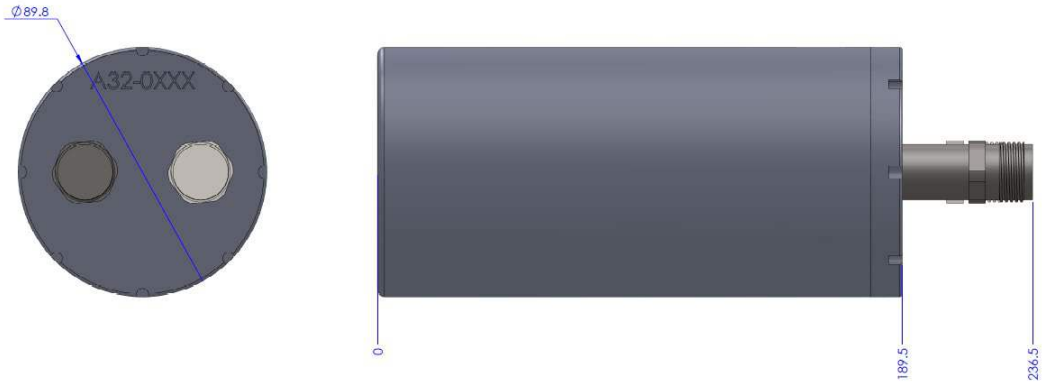
HUNTER II

DIMENSIONS

SLG Laser



LED – DC Power Bottle

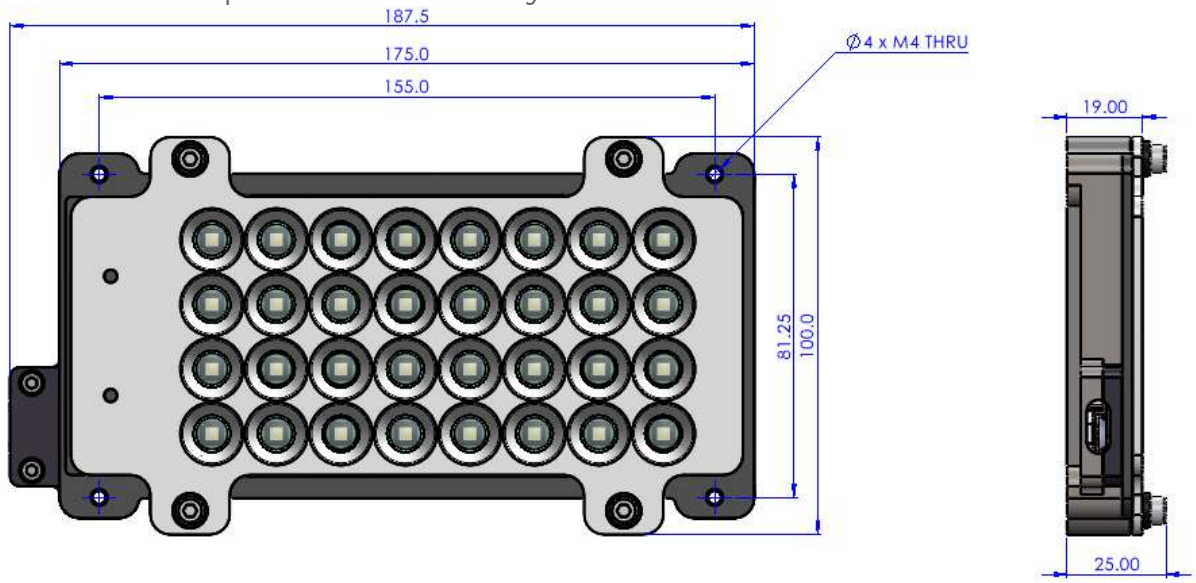


[LED Power Bottle Enclosure for AC supply is 237mm in length.]

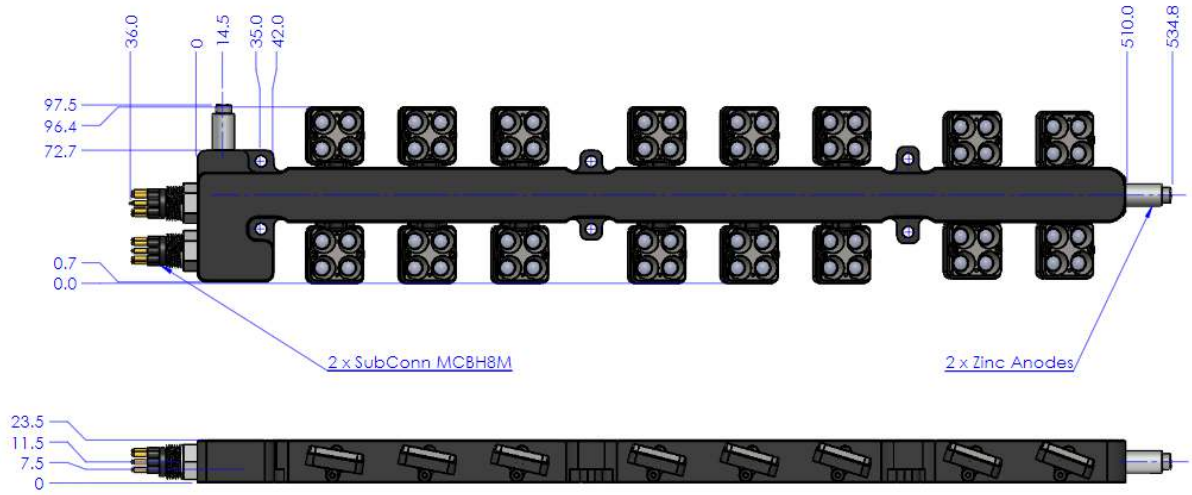
HUNTER II

DIMENSIONS

LED Panel – Optimised for ROV Systems



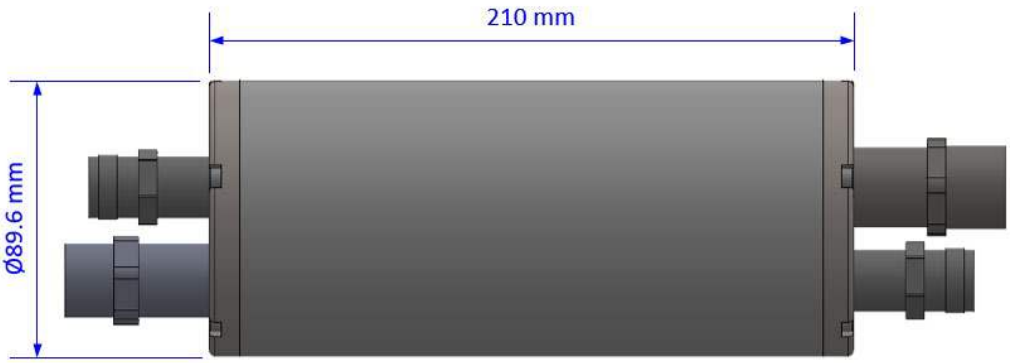
LED Spine – Optimised for AUV Systems



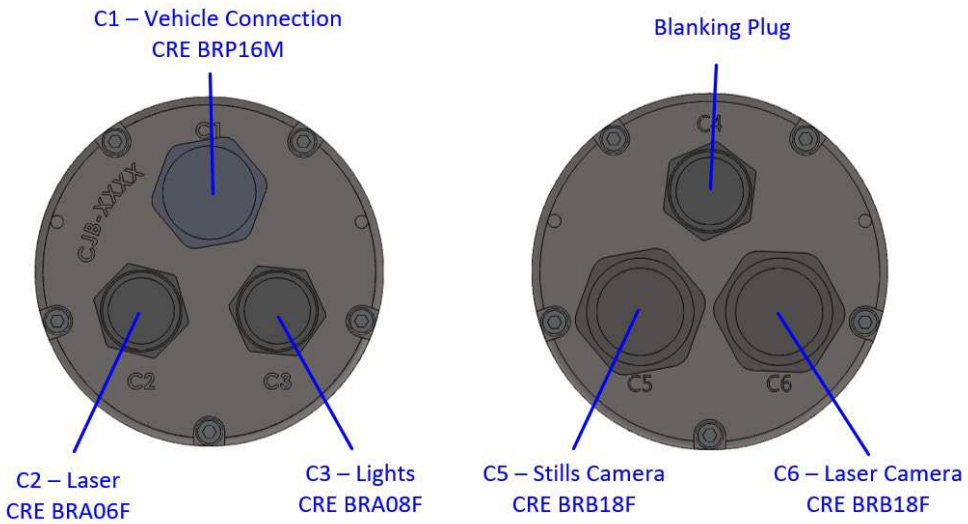
HUNTER II

DIMENSIONS

System Pod (Optional)



[System Pod - Body]



[System Pod – Connector Plates]

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