



SmartHub™



UP TO 6 KM DEPTH RATING



PER CHANNEL CONTROL



ALL-IN-ONE INTEGRATION



ADVANCED DIAGNOSTICS



PROTOCOL AGNOSTIC

The all-in-one control hub for deep-sea vehicles

System-level control—without the system-level complexity.

The SmartHub is a centralized subsea lighting power and control solution designed for ROVs, AUVs, and other subsea systems requiring high-performance, reliable illumination. It regulates and distributes power from 24–110/220 VAC or VDC sources while providing independent control, dimming, sequencing, monitoring, and fault protection for each connected light.

Supporting analog and digital control (including RS-485, Ethernet, and user-specified protocols) the SmartHub is fully protocol-agnostic, enabling seamless integration with existing vehicle architectures and lighting from multiple manufacturers. Advanced diagnostics—including current, voltage, leakage, thermal, and fault monitoring—are streamed topside in real time to improve troubleshooting, reduce downtime, and protect mission-critical equipment. Depth-rated to 6,000 m, the LCU-HUB replaces multiple discrete controllers with a single robust unit, reducing complexity, risk, and maintenance effort while improving overall system performance.



For further information, email sales@deepsea.com

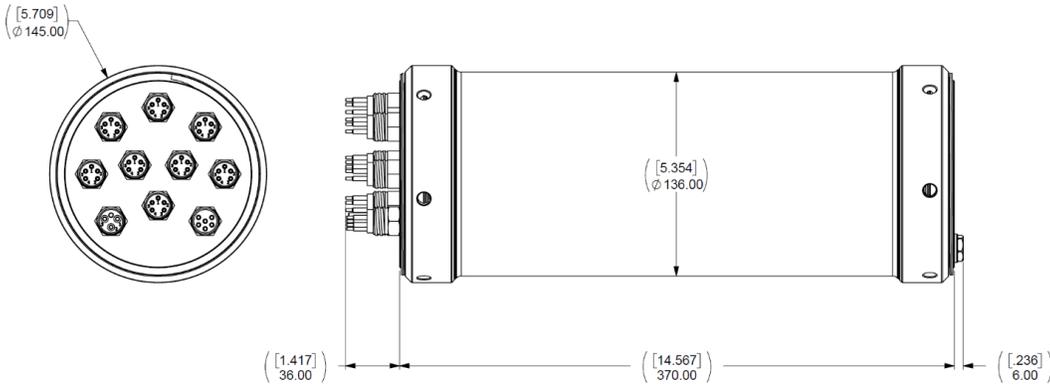


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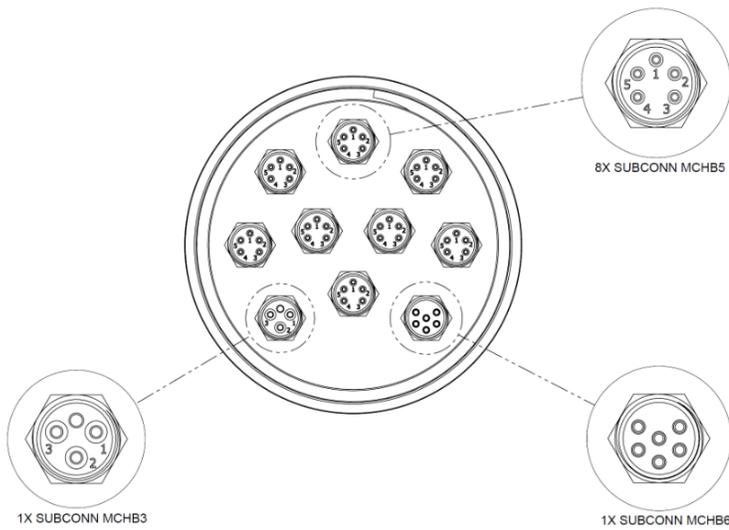
Specifications

SmartHub	
Environmental Specifications	
Depth Rating	6,000 m (19,685 ft.)
Test Pressure	70.3 MPa [10,200 PSI]
Max Pressure	103.4 MPa [15,000 PSI]
Operating Temp	-40°C to 35°C [-40°F to 95°F]
Storage Temp	-40°C to 80°C [-40°F to 176°F]
Mechanical Specifications	
Housing Material	6Al4V Titanium
Dimensions (L x D)	370mm x 145mm [14.6 in. x 5.7 in.]
Displacement	1,849.5 cm ³ [112.9 in ³]
Weight in Air	8.0 kg [17.64 lbs.]
Weight in Water	2.5 kg equivalent mass [5.5 lbs.]
Electrical Specifications	
Input Voltage Range	100 to 240 VAC 120 to 360 VDC
Input Frequency Range	47 to 63 Hz, DC
Maximum Power Draw	12.6 A @ 100 VAC
Inrush Current	90 A @ 240 VAC
Power Factor	0.98 (typ.)
Output Voltage	48 VDC
Load Regulation	±0.5% (10% to full load)
Line Regulation	±0.3% (240 VAC to 100 VAC)
Isolation - Input to Output	4250 VAC MAX 100 M-ohm MIN
Isolation - Input to CHASSIS	2000 VAC MAX
Isolation - Output to CHASSIS	2000 VAC MAX
Control Interface Specifications	
Control Interface	RS-232/RS-485 or TCP/UDP Ethernet
Supported Baud Rates	9600, 19200, 38400, 57600, 115200
Serial Protocol Support	SeaSense
Isolation	2000 VAC
Protocol Support	SeaSense for SmartHub Administration Ethernet endpoints are protocol agnostic
Ethernet Speed	1500 VAC per IEEE 802.3

Dimensions

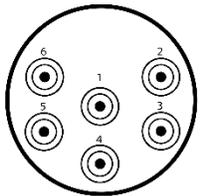


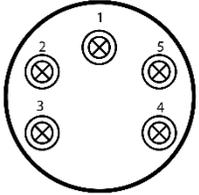
Connectors/ Pinout



Pinouts

Input Power Connector				
Connector	Manufacturer	SubConn	Pinout (03P002)	
<p>Male Pin View</p>	Model	MCBH3M-SS	1	LINE/DC+
	Pressure Rating	20,300 PSI (mated) 11,600 PSI (open face)	2	NEUT/DC-
	Voltage Rating	300V DC/AC rms	3	CHASSIS
	Current Rating	10A/ contact 20A/connector		

Host Control Interface Connector					
Connector	Manufacturer	SubConn	Pinout	Serial	Ethernet
 <p>Male Pin View</p>	Model	MCBH3M-SS	1	SERIAL REF (GND)	TD+
	Pressure Rating	20,300 PSI (mated) 11,600 PSI (open face)	2	N/C	TD-
	Voltage Rating	300V DC/AC rms	3	N/C	RD+
	Current Rating	10A/ contact 20A/connector	4	N/C	N/C
			5	↑RxD/B+	N/C
			6	↓TxD/A-	RD-

Input Power Connector				
Connector	Manufacturer	SubConn	Pinout (05L004)	
 <p>Female Socket View</p>	Model	MCBH5F-SS	1	+48V DC
	Pressure Rating	20,300 PSI (mated)	2	0V DC (GND)
	Voltage Rating	300V DC/AC rms	3	CHASSIS
	Current Rating	5A/ contact 20A/connector	4	↑RxD/B+
			5	↓TxD/A-