

EMO Omni

Fibre optic video/data multiplexer



The EMO Omni, built on the MacArtney NEXUS platform, represents a state-of-the-art solution for subsea data and communication needs.

With its fully customisable design, high data throughput, and versatile connectivity options, this multiplexer offers a robust and reliable solution for a wide range of subsea applications.

Flexibility and functionality

Fully customisable to suit specific project requirements, the EMO Omni provides flexibility in functionality, connectivity, and interface options, ensuring optimal performance for diverse subsea applications.

The EMO Omni delivers high-speed data transfer capabilities, enabling real-time communication and data exchange in challenging underwater environments.

Featuring a modular design, the EMO Omni allows for easy integration and scalability, adapting to evolving subsea infrastructure needs.

Versatile connectivity

The EMO Omni supports various sensors, instruments, and devices, providing a versatile solution for various subsea missions. Multiple communication interfaces ensure compatibility with existing subsea systems.

Engineered for durability and reliability, the EMO Omni excels in harsh subsea conditions, offering long-term performance.

Features and benefits

- Multiple subsea power inputs/outputs
- Integrated diagnostics suite
- Fully customisable

Applications

- Remotely operated vehicles (ROVs)
- Security, defence, and industrial sensor applications
- Subsea ocean observation systems
- Resource Exploration
- Underwater research
- Environmental monitoring
- Offshore renewable energy
- Subsea telecommunications

Options

- Fibre redundancy
- Optical diagnostics
- Power switching
- TrustLink™ or SubConn® connectivity



Specifications - topside unit

Mechanical		Various:	LEDs for link status indication
Dimensions:	19" rack mount	Monitoring:	LEDs for status indication Focal Diagnostics software
Electrical		Transport	
Supply voltage:	85-265 VAC, 50/60 Hz	Delivered in Peli™ hard shell case	

Specifications - subsea unit

Mechanical		Electrical	
Dimensions:	Size fitted to your needs	Supply voltage:	100-250 VAC 50/60 Hz (400 Hz optional) 140-370 VDC optional
Depth rating:	3,000 m (6,000 m optional)	Output voltage:	48 VDC 24 VDC 12 VDC AC (input voltage level) Other voltages on request
Material:	Stainless steel (AISI 316) (titanium version available)	Fibre optic	
Multiplexer		Fibre type:	Single mode
Serial:	Configurable to your needs (RS232, RS485 or RS422)	Number of fibres required:	1
Triggers:	Bi-directional (buffered TTL level)	Flux budget:	>18 dB
Ethernet:	Choose from 10/100/1000BaseT (ethernet bandwidth 2.4Gbps)	Control and monitoring	
HD Video:	Optional HD-SDI (SMPTE-292M)	Control:	Power switching Programmable eFuses
Light interfaces:	LED lights (RS485 or analogue controllable)	Monitoring:	Leak Ground fault Voltages and current draw Temperature Power on/off feedback status Optical loss
		Transport	
		Delivered in custom made flight case	