# EMO Nano
## Fibre optic multiplexer system



**Features and benefits**

- Compact design
- Lightweight
- High data throughput
- Robust design
- Low power consumption
- Plug and Play installation
- Compatibility with wide range of sensors
- Optical diagnostics
- Remote power switching
- eFusing

**Applications**

- ROV, ROTV, ASV and AUV
- Drop/tow camera systems
- Real time sensor stations
- Underwater monitoring and surveillance
- Pipe/hull inspection

The MacArtney EMO Nano Fibre Optic Multiplexer is a cutting-edge underwater technology solution designed to meet the demands of high-performance data transmission in marine environments.

This compact and versatile multiplexer is engineered to deliver exceptional reliability and flexibility for a wide range of underwater applications.

Available in three standard versions, the EMO Nano can act as an auxiliary system to an existing telemetry network to allow for expansion of marine sensors.

MacArtney
UNDERWATER TECHNOLOGY

Introduction

EMO
multiplexers

Connectivity

Winch and Handling Systems

Data Acquisition

Service and Training

Technical Information

## Specifications - topside unit

|  | Nano HD-Video | Nano Ethernet | Nano Hybrid | Nano Custom |
|---|---|---|---|---|
| **Mechanical** | | | | |
| Dimensions | 19" 1U rack mount | | | |
| **Electrical** | | | | |
| Supply voltage (VAC/Hz) | 85-240/50/60 | | | AC/DC |
| Power switching | Yes | | | |
| Monitoring | Leak and temperature alarm, optical budget, fibre link, power feedback and video status. LED fault indicators | | | |

## Specifications - subsea unit

|  | Nano HD-Video | Nano Ethernet | Nano Hybrid | Nano Custom |
|---|---|---|---|---|
| **Mechanical** | | | | |
| Pipe diameter OD (mm) | 83 | | | |
| Pipe length (mm) | 380 | | | |
| Material | SS316/Titanium | | | |
| Depth rating (msw) (m) | 3000/6000 | | | |
| Weight in air approx. (kg) | 3.50 | | | |
| Weight in water approx. (kg) | 1.75 | | | |
| **Electrical** | | | | |
| Video (NTSC/PAL-75 ohm) | N/A | | | Consult factory |
| HD-video (SDI, HD-SDI, 3G-SDI) | 2 | - | 1 | Consult factory |
| Serial RS232/485/422/TTL | - | - | 1 | Consult factory |
| Ethernet 10/100/1000 Mbps | - | 2 | 1 | Consult factory |
| Subsea supply voltage (VDC) | Up to 48 | | | |
| Output voltages (VDC) | 12/24/48 | | | |
| **Fibre Optic** | | | | |
| Fibre type, single mode (µm) | 9/125 | | | |
| Flux budget (dB) | 18 | | | |
| Link distance (km) | 10 | | | |