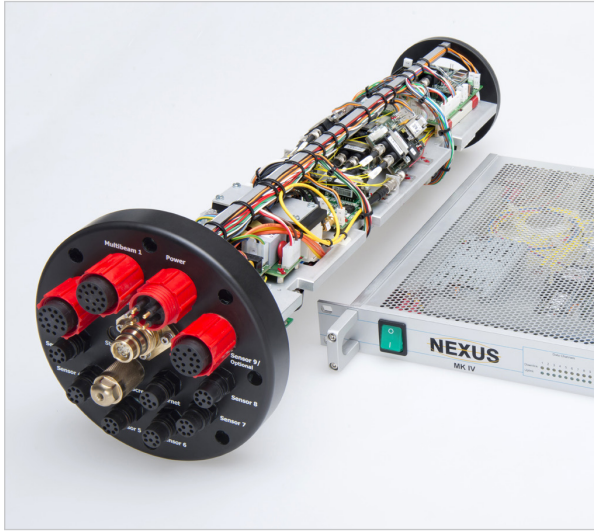


NEXUS MK IV

ROV telemetry and survey multiplexer



The MacArtney NEXUS MK IV is a multibeam sonar multiplexer that carries all signals over one single mode optical fibre via CWDM (coarse wavelength division multiplexing).

The system encompasses MacArtney (P)ECL fibre optic converters, the Cypress multiplexer, minicontroller and Ethernet converters.

Power switching is software controlled and can be installed on any computer with at least one com port (real or USB). The protocol is open and can be integrated into customer software for monitoring convenience. Sensor power status, leak alarm, telemetry link, etc., are also continually monitored through the software.

The subsea housing is manufactured from hard anodised aluminium and uses anodised aluminium SubConn® connectors. For depth ratings over 3,000 msw, the pressure housing can be manufactured from titanium or high tensile duplex steel.

Features and benefits

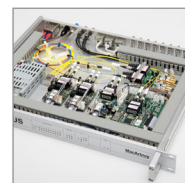
- Interfaces all standard multibeam sonars and survey sensors
- Software controlled power supply to sensors
- Operates on one single-mode optical fibre
- Interface for Seabat 81xx, Seabat 71xx, Kongsberg EM 300x, Kongsberg EM 2040 and R2Sonic multibeam sonar (dual head)

Applications

- ROV/ROTV multiplexer for multibeam sonar survey sensor set-up

Options

- Titanium or high tensile steel pressure housing for the subsea unit
- Customised subsea controls



Specifications - topside unit

| | | | |
|--------------------|--------------------------|-----------------------|------------------------------------|
| Mechanical | | Various: | Light diodes for status indication |
| Dimensions: | 19" rack mount, 1 U high | | |
| Electrical | | Transport | |
| Supply voltage: | 85-265 VAC, 50/60 Hz | Delivered in Pelicase | |
| Power consumption: | 25 W | | |

Specifications - subsea unit

| | | | |
|--------------------------|---|----------------------------|--|
| Mechanical | | Electrical | |
| Dimensions pod: | OD 197 mm, total length including connectors approx. 750 mm | Supply voltage: | 85-132 and 180-264 VAC 50/60 Hz |
| Depth rating: | 3,000 m | Output voltage: | 48/24/12 VDC |
| Material: | Hard anodised aluminium (7075 T6 standard) | Power switching: | 2 x 48 V, 10 x 24 V and 8 x 12 V Other voltages on request |
| Weight in air: | Approx. 42 kg | Fibre optic | |
| Weight in water: | Approx. 20 kg | Fibre type: | Singlemode 9/125 or multimode 50/125-62.5/125 (Ethernet 1000Base-T has 500 m range on standard multimode) |
| Multiplexer | | Number of fibres required: | 1 or 2 |
| Multibeam sonar signal: | 2 (P)ECL, 125 Mb/s 2 GBE (see below) | Flux budget: | > 26 dB |
| RS 232: | 5 | Transport | |
| RS 232/485: | 2 | Delivered in flight case | |
| RS 232/485/422/TTL: | 2 | | |
| Ethernet (10/100Base-T): | 1 | | |
| Ethernet (1000Base-T): | 2 | | |
| Digital channels: | 16 I/O | | |
| Analog channels: | 8 input (12 bit), 2 output (12 bit) | | |
| Leak alarm: | Yes (1) | | |