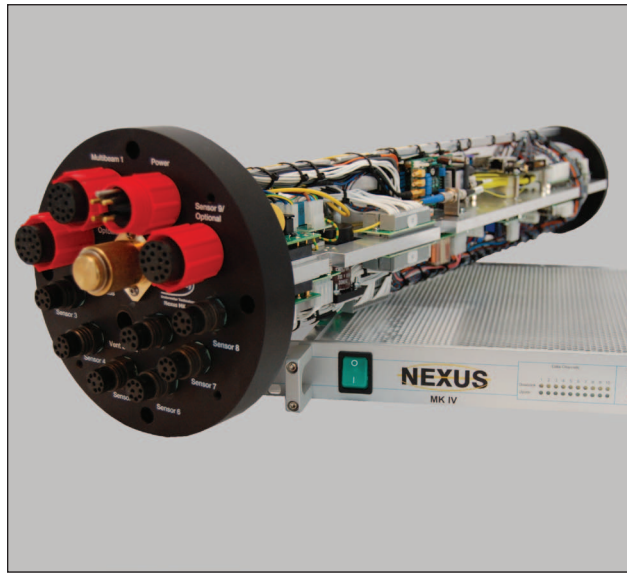


NEXUS MK IV Multiplexer



Description

The MacArtney NEXUS MK IV is a multi-beam 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, 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 3000 msw, the pressure vessel is 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 singlemode 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 setup

Options

- Titanium or high tensile Duplex steel pressure housing for water depths > 3000 metres.
- Customised subsea controls



Technical Specifications

Specifications topside unit

Mechanical

Dimensions: 19" rack mount, 1 U high

Electrical

Supply voltage: 85-265VAC, 50/60Hz

Power consumption: 25 W

Various: Light diodes for status indication

Specifications subsea unit

Mechanical

Dimensions pod: OD 197 mm, total length including connectors approx. 750 mm
(3000m subsea unit)

Depth rating: 3000 msw

Material: Hard anodised aluminium 6082T6

Weight in air: Approx. 42 kg

Weight in water: Approx. 20 kg

Dimensions pod: OD 197 mm, total length including connectors approx. 590 mm
(1000m subsea unit)

Depth rating: 1000 msw

Material: Hard anodised aluminium

Weight in air: Approx. 25 kg

Weight in water: Approx. 7 kg

Multiplexer

Multibeam-sonar: 2 (P)ECL, 125 Mb/s
2 GBE (see below)

RS 232: 5

RS 232/485: 2

RS232/485/422/TTL 2

Ethernet

(10/100 Base-T): 1

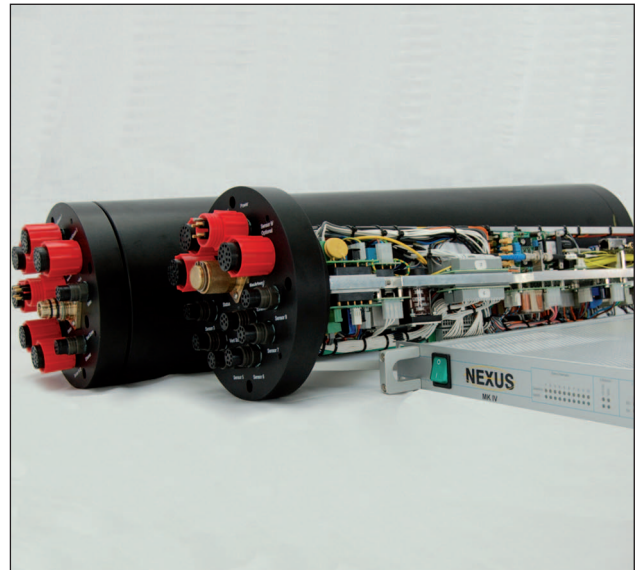
Ethernet

(1000 Base-T): 2

Digital channels: 16 I/O

Analog channels: 8 input (12 bit),
2 output (12 bit)

Leak sensor: Yes (1)



Electrical

Supply voltage: 85-132 & 180-264 VAC
50/60 Hz

Output voltage: 48/24/12 VDC

Power switching: 2x48 V, 10x24 V and
8x12 V
Other voltages on request

Fibre optic

Fibre type: Singlemode 9/125 or
multimode 50/125-
62.5/125
(Ethernet 1000 Base-T
has 500 m range on
standard multimode)

Number of fibres
required: 1 or 2

Flux budget: > 26 dB

Topside unit delivered in Pelican case.

Subsea unit delivered in flightcase.

Specification subject to change without notice

