

# fNET Modem

for fibre-free, high bandwidth data and control



ROV CONTROL SYSTEM PRODUCTS



COMMERCIAL DIVE SYSTEM PRODUCTS

## Key Features and Benefits:

- Infrastructure cost saving
  - High bandwidth data - without fibre
  - Uses cores shared by legacy systems
  - STP / coax / powerline compatible
  - 235Mb/s and 1.7Gb/s speeds
  - Range up to 1km
- IIoT capability for data intensive applications:
  - Multi-channel HD Video
  - Subsea data acquisition
  - Simultaneous control and monitoring
- Simple, protocol transparent installation:
  - 2x 10/100 Ethernet and 2x RS232
  - Compact subsea modems for pods



## Product Overview:

Fathom Systems' fNET transforms subsea communication by enabling high bandwidth and protocol transparent data links over screened twisted pair, coax or power lines up to 1km.

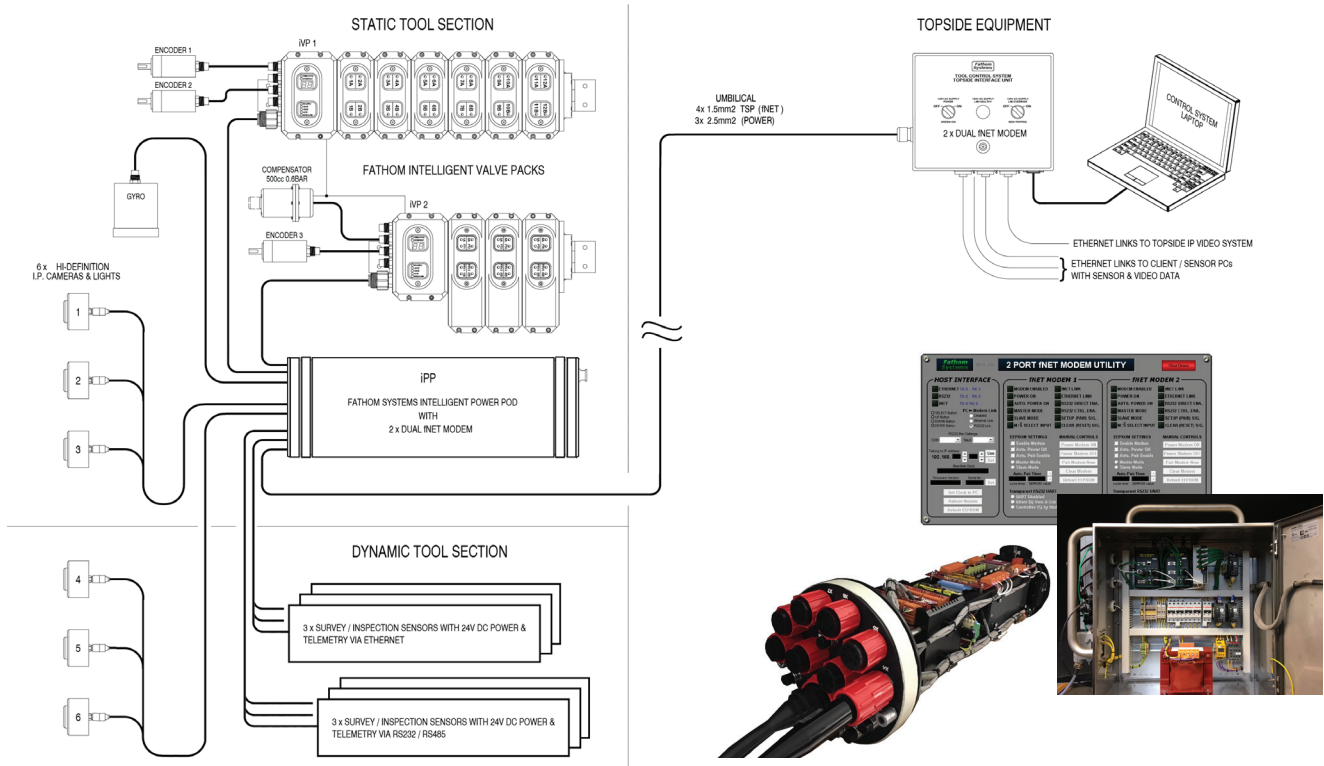
fNET can coexist with traditional communications buses operating on existing umbilical conductors and can also be configured to provide highly resilient backup data links over umbilical power connections.

Brownfield infrastructure can now be considered for upgrades previously thought impractical due to their limited communication capacity and, for some new applications, the need to consider the complexity and cost of fibre installation can be eliminated.

Housed in a convenient DIN-rail mount format, the topsides module provides two independent fNET, each supporting a 10/100 Ethernet port plus a transparent RS232/RS485 port.

### Fathom Systems Ltd.

Designers and manufacturers of mission critical monitoring, communications and control system products and solutions for commercial diving, life-support, remote intervention and underwater applications. A 12-year track record of high reliability and integrity systems that provide users with significant operational advantages. Backed up by a 24/7/365 support network that includes service, training and maintenance.



### fNET Application - Subsea Remote Intervention using Fathom fNET:

Inspection sensors, hydraulic controls and multiple high bandwidth IP video – all sharing twister pair umbilical.

## Connections

- **Power / Fathom iNET**
  - 24V DC power / iNET data port in
  - 24V DC power / iNET data port out
- **Host Port**
  - 115k2 RS232 9-way 'D' male
  - 10/100 Ethernet RJ45
- **Two independent fNET each with:**
  - STP connector
  - 115k2 RS232/RS485 9-way 'D' male
  - 10/100 Ethernet RJ45

## Dimensions

- **Topsides dual fNET:**
  - 110mm w, 175.5mm h, 66mm d
- **Subsea single fNET PCB each:**
  - 30mm w, 55mm h, 6mm d

## User friendly diagnostics

- **Onboard LED display or host PC app**
  - Link diagnostics
  - Data rates
  - IP settings

## Status indications

- **Host Interface**
  - Reset watchdog
  - System Status
  - iNET link
- **fNET Modems**
  - Master or Slave
  - Link OK
  - Power
- **RS232/RS485**
  - Tx, Rx, Direct Enable, Control Enable
- **Ethernet**
  - Link active
  - Data present



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