The 6LoWPAN Spatial Sensor I/O Node Pro is a fully-featured M2M node, giving you the flexibility to control your device and monitor its surroundings including its physical location.

**TAKE EVEN MORE CONTROL**

The Spatial Sensor I/O Node Pro is pre-fitted with a Genesys Modular Stack module (GBI-MS-200) capable of GNSS (GPS, GLONASS, Galileo and others) location fixing and a 9-axis accelerometer. It also features temperature and humidity sensing capability, unlocking new possibilities such as controlling connected devices based on current weather conditions.

**HUGE RANGE OF I/O POSSIBILITIES**

The Spatial Sensor I/O Node Pro can be configured to handle a broad spectrum of I/O and is constantly progressing with development of the Genesys Modular Stack. A range of applications is possible, including purely sensing (e.g. environmental or process monitoring) through to active control points and everything in between (such as localised stand-alone control loops). These are all configurable with the Genesys M2M common data abstraction model.

**CUSTOM I/O OPTIONS**

Application-specific base-boards for the 6LoWPAN Sensor I/O Node are available to Genesys customers. Customised base-boards allow for optimisation of exposed I/O and overall form factor.

**USER INTERFACE**

Coupled with an optional user interface board (GBU-XN-200) with LCD screen, alpha-numeric keypad and context-sensitive buttons and LEDs, you can enjoy on-device monitoring of spatial and environmental data, in addition to display your M2M application status.
CHARACTERISTICS

WIRELESS NETWORK
- IEEE 802.15.4 full mesh network
- 6LoWPAN IPv6 enabled stack
- Supports drop-in, drop-out PnP

INTERNET CONNECTIVITY
- Multiple transparent RS-485/422 connections between subnets via Internet
- Access and control of network from PCs or mobile devices via internet
- Modbus TCP enabled

RS-485/422
- Dual transparent RS-485/422 to RS-485/422 data piping with full or half duplex capabilities
- Looping connector for multi-drop applications
- Power feed over RS-485 cable
- MODBUS RS-485/422 Master

I/O
- 4 A/D input channels 0 to 3V3
- 2 D/A output channels 0 to 3V3
- 2 Solid State Relay outputs 30V 1.2A
- Up to 9 GPIO lines 0 to 3V3
- I2C and SPI ports 0 to 3V3
- Supply Output (200mA)
- 3V3 Output (200mA)

USB
- USB serial port for PC or modem interface

STORAGE
- Dual on-board data backup EEPROMs
- EUI-48 48-bit Extended Unique Identifier

USER INTERFACE
- 2 Dual TX/RX indicator LEDs
- Dual status indicator LEDs
- Two pushbuttons & Reset button
- Remote monitoring and control via mobile app
- Optional accessory board (GBU-XN-200) with 128x64 monochrome back-lit LCD, 4 user LEDs and 4 user pushbuttons or a 4x4 keypad

PHYSICAL
- Dimensions: 110 (W) by 150 (H) by 50 (D) mm
- Weight: 350g

ENVIRONMENTAL
- Temperature (operating): -15°C to +55°C
- Temperature (survival): -55°C to +85°C
- Humidity (operating): 95% RH at 50°C

POWER SOURCES
- Supply Voltage: 5VDC to 9VDC
- Power Consumption (Operating) - 500 mW
- Power Consumption (Standby) - 50 mW

OTHER INTERFACES
- u.Blox MAX-7W GNSS Module
- 9-axis Accelerometer
- Humidity Sensor
- Temperature Sensor