NMEA2000® 16 Channel Switch Input Module



- **Protected against ESD, Voltage Surges and Transients to IEC61000 4-2,4 and 5**
- **Up to 16 isolated input channels**
- **PLC quality inputs compatible with standard IEC61131-2 Type 1 and Type 3 Inputs**
- **Indicator LEDs for each active Inputs**
- **Switch settable Device Instance**
- **Boat Builder Preferred WAGO Cage Clamp Terminals**
- **Compatible with 12 or 24 Volt Systems**
- **Low Cost**
- **Manufactured to NMEA2000®**

The Oceanic Systems' 4410 16 Channel Switch Input Module monitors switch closure devices and reports their status over the NMEA2000® network.

These devices can include fire/smoke/carbon monoxide detectors, bilge and flood float detectors, doorway and porthole closure detectors, valve status detectors and many more. With this module and suitable NMEA2000® displays the status of all: these items can be viewed anywhere on the vessel.

The unit has PLC quality inputs that are manufactured to IEC 61131 and IEC61000 standards so they are optically isolated and fully protected against ESD, Voltage Surges and Transients to ensure the most reliable operation at all times.

It is compatible with either 12 or 24 Volt systems. It requires NO user setup menus but the simple setting of two small rotary address switches so multiple Switch Input Modules can exist on the same network.

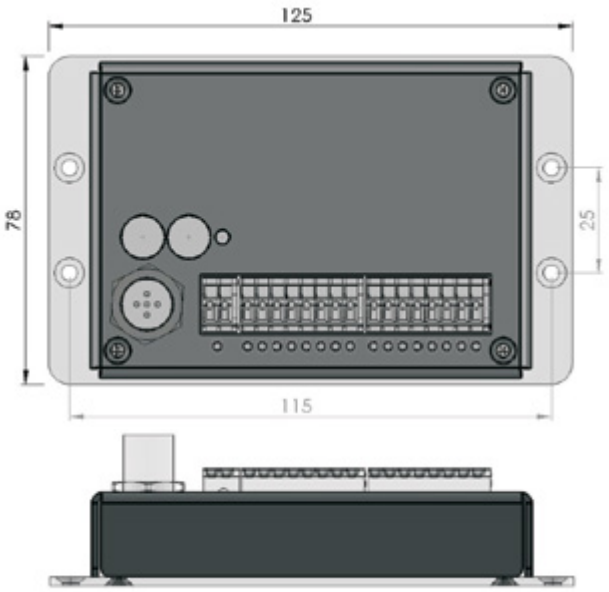
The connections to the unit are made via boat builder preferred WAGO Cage Clamp terminal blocks which allow either solid or multi-stranded wires from 0.08 to 1.5mm^2 to be connected quickly and securely. Each switch input also has a tell tale green LED to indicate when it is active.

The 4410 can be either panel mounted or din rail mounted using the mounting clips provided.

The unit comes with a detailed User Manual and is manufactured to work with NMEA2000®.

The 4410 16 Channel Switch Input Module is an important part of our NMEA2000® based Vessel Monitoring and Control System.

NMEA2000® 16 Channel Switch Input Module
Part No. 4410



Typically used to monitor

- **Fire Detectors**
- **Smoke Detectors**
- **Carbon Monoxide Detectors**
- **Bilge and Flood Level Float Switches**
- **Doorway, Porthole and Hatch Switches**
- **PIR Motion Detectors**
- **Valve Status Switches**
- **Coolant Flow Switches**
- **OverTemp Alarm Switches**
- **Water in Fuel Switches**

Outputs		
Switch Inputs	16 Optically Isolated Inputs	
Input Voltages	12 or 24 Volts	
Wire Sizes	Solid or Multi-stranded 0.08 - 1.5mm²	
Design Standard		
NMEA2000	Level B	
Maritime Nav & RadioComm	IEC60945, IEC61000-4-2,4 and 5	
CE & FCC	Electromagnetic Compatibility	
NMEA2000 Parameter Group Numbers (PGNs)		
Type	PGN No.	PGN Name
Monitor	PGN127501	Switch Bank Status
Protocol	PGN126464	Tx/Rx PGN List
	PGN126996	Product Information
	PGN059392	ISO Acknowledge
	PGN059904	ISO Request
	PGN060928	ISO Address Claim
	PGN126208	Command/Request Group
Electrical and Mechanical		
Operating Voltage	9 to 32 Volts	
Power Consumption	36mA at 12 Volts	
Load Equivalence Number	1	
Reverse Battery Protection	Indefinitely	
Load Dump Protection	Yes to SAE J1113	
Size	125 x 78 x 38mm	
Weight	180 gm	
Environmental		
IEC06954 Classification	Protected	
Degree of protection	IP 40	
Operating Temperature	-25C to 50C	
Storage Temperature	-40C to 70C	
Relative Humidity	93%RH @ 40C per IEC 60945-8.2	
Electromagnetic Emission	Conducted/Radiated per IEC 60945-9	
Electromagnetic Immunity	Conducted/Radiated per IEC 60945-10, 61000.	

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