Marine Pressure Sensors Datasheet

Across Ocean Systems Ltd. offers a selection of digital pressure sensor. The pressure sensors are made of high quality stainless steel. Each sensor is tested with a pressure of at least two times the working pressure in order to guarantee safe operation within specified working pressure range. Sensors with different working pressure ranges, could be available on special request

NMEA2000 digital pressure sensors support standard PGN130314 - "Actual Pressure" output. Pressure Source can be selected as Atmospheric pressure, Water pressure, Steam pressure, Compressed air pressure, Hydraulic pressure, Filter pressure, Oil pressure and Fuel pressure. The sensors can output additional selection of appropriate pressure PGNs to match your use. The list of supported PGNs are shown in the NMEA 2000® table on the next page.

All AOS Ltd. NMEA 2000® Digital Sensors have our standard Wi-Fi configuration interface that allows configuration directly from your iPhone / Android mobile phone, as well as from a PC or MAC computer. Using Chrome web browser is preferable. In the configuration pages, one can name the sensor, change the senor instance as well as modify other sensor settings. Appropriate single or multiple output PGNs can be also selected, as some sensors support an output of multiple PGNs for the data they represents. Multi channel modules can output the same or different type PGNs for each channel. Where applicable simple multi-point calibration is available e. g. for calibration of tank level sensors.

* Power consumed in normal operation. During configuration the power consumed is higher due to enabling the Wi-Fi interface

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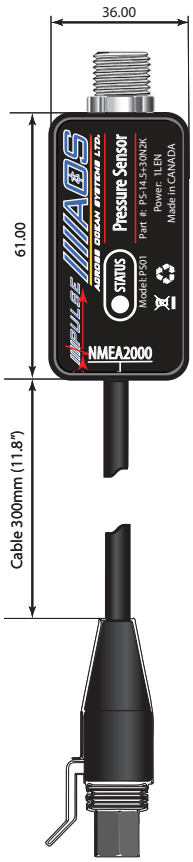
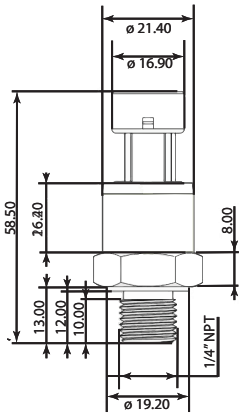
Specifications

M12
NMEA2000
Male (pin) connector

1. Shld 2. Net-S 3. Net-C 4. Net-H 5. Net-L





All dimensions are in millimeters except the thread size
The tread size is 1/4" NPT for all pressure ranges
All specification as subject to change

NMEA 2000® Level A certified

Pressure Ranges

Part # / Parameter	Working Pressure / Value	Comment
PS-14.5-30-N2K	-14.5 psi to 30 psi (-1 bar to 2 bars)	Minimum pressure step 0.45 psi (0.03 bar)
PS-0-100-N2K	0 psi to 100 psi (0 bar to 6.9 bars)	Minimum pressure step 1 psi (0.07 bar)
PS-0-200-N2K	0 psi to 200 psi (0 bar to 14 bars)	Minimum pressure step 2 psi (0.14 bar)
PS-0-500-N2K	0 psi to 500 psi (0 bar to 35 bars)	Minimum pressure step 5 psi (0.34 bar)
PS-0-5000-N2K	0 psi to 5,000 psi (0 bar to 345 bars)	Minimum pressure step 50 psi (3.45 bar)
Resolution	+/- 1%	Based on sensor's full working range
Accuracy	+/- 1%	Based on sensor's full working range
Tested pressure	2 X maximum working pressure	Based on sensor's full working range

Electrical

Parameter	Value	Comment
NMEA 2000® Operating Voltage	9 VDC to 32 VDC	Powered via NMEA 2000® port
NMEA 2000®Power Consumption	< 50mA / 100* mA	*When Wi-Fi is enabled for configuration
NMEA 2000® LEN	1 LEN / 2 LEN config	NMEA 2000® Spec. (1 LEN = 50 mA)
NMEA 2000® Reverse Polarity	Protected	Indefinite

NMEA 2000® Supported PGNs

Parameter	PGN	Name	Update rate
System PGNs	59392	ISO Acknowledgment	
	59904	ISO Request	
	60160	Multi packet data transfer	
	60416	Multi packet connection management	
	60928	ISO Address Claim	
	65240	Commanded Address	
	126208	NMEA Request/ Command/ Acknowledge	
	126464	PGN List	
	126993	Heartbeat	60 sec
	126996	Product information	
	126998	Configuration information	
Data PGNs	130314	Actual Pressure	0.1 sec
	127488	Engine parameters rapid	0.1 sec
	127489	Engine parameters dynamic	0.5 sec
	127493	Transmission parameters	0.1 sec

Mechanical and Environmental

Parameter	Value	Comment
NMEA 2000® Box	61.0mm X 36.0mm X 28.0mm (2.4" X 1.42" X 1.1")	Without a drop cable connected
Cable	300 mm (11.1")	
Sensor size / Thread size	58.5mm X 29.5mm X 31mm (2.3" X 1.16" X 1.22") / 1/4" MNPT	Without the connector attached
Weight	180g (6.5 oz)	
Operational / Storage Temp	-30 °C to +60 °C (-22 °F to +140 °F) -40 °C to +70 °C (-40 °F to +158 °F)	
Operational Humidity	90%	Non Condensing
IP Rating	IP66 / IP65	NMEA 2000® Box / Pressure Sensor

Standards Compliance

Across Ocean System's devices are NMEA 2000® Level A certified and designed to comply with the most stringent marine standards such as IEC 60945 and IEC 61162-3, as well as the European CE standard - Electromagnetic Compatibility section.

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