miniIPS2e

Intelligent Pressure Sensor Ethernet

The miniIPS2e is a precision underwater pressure sensor with an accuracy of 0.01%FS and can provide a data rate of up-to 100Hz. Key to this design is the unique interchangeable pressure module that allows customers to change pressure transducers for maximising operationally specific depth requirements. This innovative pressure module, with integral calibration, can be changed in a couple of minutes without opening the instrument and is available in 0.01% accuracy, 10, 20, 30, 50, 100, 200, 300, 400 and 600 BAR variants.

This is a cost-effective solution for offshore engineers, vehicle pilots, and other operators who require highly accurate depth information in real time, combined with the knowledge that testing to the standard ISO 13628-6:2006 (Q2 Levels) for vibration and shock has been attained. The miniIPS2 is compatible with Valeport's MIDAS BathyPack and BathyLog software, allowing the depth data to be continually updated for Density variations in the water column.

DATA SHEET

Product Details

BATHYMETRY

CONFIGURE SOFTWARE

ETHERNET ENABLED

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VALEPORT

Interchangeable Pressure Sensor Module

The pressure sensor module fitted to the miniIPS2 is a temperature compensated piezo-resistive sensor, which delivers the performance previously only available from a resonant quartz sensor.
It also brings the added advantages of long-term stability, allowing longer intervals between calibration, and a smaller and more robust construction; complex and vulnerable arrangements of diaphragms and oil filled capillaries & reservoirs are therefore no longer necessary.

Type	Temperature compensated piezo-resistive
Range	10, 20, 30, 50, 100, 200, 300, 400 or 600 BAR
Accuracy	±0.01% FS
Resolution	0.001% FS

Data Acquisition

Sampling	Continuous, burst average or data on demand
Data Rate	1, 2, 4, 8, 16, 32, 64 or 100Hz in continuous mode and as low as 1 sample per day in burst mode
Units	Secondary calibration function allows conversion of dBAR pressure to the required units, such as BAR, metres or feet
Tare	Tare Function allows correction for atmospheric pressure

Physical

Housing	Titanium (6000m rated)
Size	40mmØ x 190mm (including connector)
Vibration & Shock	Tested to standard ISO 13628-6:2006 (Q2 Levels)
Weight	0.6kg (air)
Connector	SubConn MCBH (titanium)
Shipping	42 x 32 x 22cm, 3kg

Communications

Output	Ethernet
Protocol	4800 to 115200 baud, (8,1,N)
Format	ASCII text Data format compatible with Valeport's DataLog X2 and BathyLog software, allowing real time depth correction using Density Profiles

Power Requirements

Input	9 – 28V DC (isolated)
Power	less than 0.4W (40mA @ 12V DC)

Software

Valeport Configure has been introduced to simplify the configuration of instruments prior to deployment. It can be used instead of DataLog X2.

Ordering

0760013-XXX	(where XXX is the pressure rating of transducer in BAR) miniIPS2 Fitted with: · 0.01% piezo-resistive sensor Supplied with: · Interface lead · Operating manual and transit case (standard transit case will also hold up to three extra pressure modules)
PTSA-XXX	Additional interchangeable pressure modules
Note	XXX denotes pressure transducer range. Select from 10, 20, 30, 40, 50, 100, 200, 300, 400 or 600 BAR

Datasheet Reference: miniIPS2 standard Ethernet Enabled | May 2021
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miniIPS2

Intelligent Pressure Sensor RS232 & RS485

The miniIPS2 is a precision underwater pressure sensor with an accuracy of 0.01%FS and can provide a data rate of up-to 100Hz. Key to this design is the unique interchangeable pressure module that allows customers to change pressure transducers for maximising operationally specific depth requirements. This innovative pressure module, with integral calibration, can be changed in a couple of minutes without opening the instrument and is available in 0.01% accuracy, available in 10, 20, 30, 50, 100, 200, 300, 400 and 600 BAR variants.

This is a cost-effective solution for offshore engineers, vehicle pilots, and other operators who require highly accurate depth information in real time, combined with the knowledge that testing to the standard ISO 13628-6:2006 (Q2 Levels) for vibration and shock has been attained. The miniIPS2 is compatible with Valeport's MIDAS BathyPack and BathyLog software, allowing the depth data to be continually updated for Density variations in the water column.

DATA SHEET

Product Details

BATHYMETRY

CONFIGURE SOFTWARE

STANDARD RS232/485

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VALEPORT

Interchangeable Pressure Sensor Module

The pressure sensor module fitted to the miniIPS2 is a temperature compensated piezo-resistive sensor, which delivers the performance previously only available from a resonant quartz sensor.
It also brings the added advantages of long-term stability, allowing longer intervals between calibration, and a smaller and more robust construction; complex and vulnerable arrangements of diaphragms and oil filled capillaries & reservoirs are therefore no longer necessary.

Type	Temperature compensated piezo-resistive
Range	10, 20, 30, 50, 100, 200, 300, 400 or 600 BAR
Accuracy	±0.01% FS
Resolution	0.001% FS

Data Acquisition

Sampling	Continuous, burst average or data on demand
Data Rate	1, 2, 4, 8, 16, 32, 64 or 100Hz in continuous mode and as low as 1 sample per day in burst mode
Units	Secondary calibration function allows conversion of dBAR pressure to the required units, such as BAR, metres or feet
Tare	Tare Function allows correction for atmospheric

Physical

Housing	Titanium (6000m rated)
Size	40mmØ x 190mm (including connector)
Vibration & Shock	Tested to ISO 13628-6:2006 (Q2 Levels)
Weight	0.6kg (air)
Connector	SubConn MCBH6F (titanium) (other connectors available on request, but subject to lead times)
Shipping	42 x 32 x 22cm, 3kg

Communications

Output	RS232 & RS485 fitted as standard
Protocol	4800 to 115200 baud, (8,1,N)
Format	ASCII text Data format compatible with Valeport's DataLog X2 and BathyLog software, allowing real time depth correction using Density Profiles

Power Requirements

Input	9 – 28V DC (isolated)
Power	less than 0.4W (40mA @ 12V DC)

Software

Valeport Configure has been introduced to simplify the configuration of instruments prior to deployment. It can be used instead of DataLog X2.

Ordering

0760012-XXX	(where XXX is the pressure rating of transducer in BAR) miniIPS2 Fitted with: · 0.01% piezo-resistive sensor Supplied with: · Interface lead · Operating manual and transit case (standard transit case will also hold up to three extra pressure modules)
PTSA-XXX	Additional interchangeable pressure modules
Note	XXX denotes pressure transducer range. Select from 10, 20, 30, 50, 100, 200, 300, 400 or 600 BAR

Datasheet Reference: miniIPS2 standard RS232/485 | May 2021
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