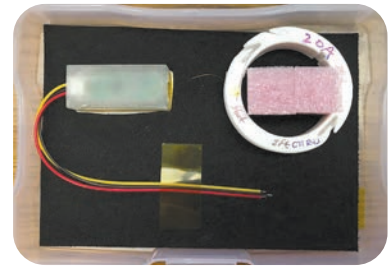




P330W Eval Kit

Absolute Catheter Pressure Sensor Evaluation Kit - 1F (330 μ m)



NovaSensor P330W Absolute Catheter Pressure Sensor Evaluation Kit offers a simplified way to read calibrated output from the P330B Catheter Die.

The kit consists of a pressure sensor die soldered to trifilar wire and terminated to a printed circuit board (PCB). Users connect to kit via JST Connector or wires.

The P330B Piezoresistive (PRT) Pressure Sensor Die offers the same superior stability and sensitivity as in larger die, but in an extremely small footprint, this is ideal for invasive applications where small size is critical. Additionally, it has excellent measurement accuracy, which also makes it ideal for demanding applications with restricted dimensional profiles, such as medical catheters and IC packages.

When excited with a DC voltage source, the P330W produces a mV output that is proportional to the applied pressure. The P330W employs a half-bridge design, which requires two external resistors to complete a full- bridge configuration. These resistors are included as part of the kit's application circuit.

P330W Eval Kits are available in both, analog and digital output I²C configurations.

Wire

Samples are currently offered utilizing 46 AWG (40 μ m) core wire. Standard lengths of micro-cable available at 3 ft and 6 ft. Contact your AAS representative for custom cable lengths or AWG size.

Features

- Extremely small die: 900 μ m x 330 μ m x 120 μ m cross-section
- Stable accurate pressure measurement of +/-6mmHg
- Die mounted on ceramic substrate for ease of handling
- Available in analog or digital output
- Ease of connection for testing
- 4500mmHg A burst pressure

Applications

- Cardiovascular
- Respiratory
- Intracranial
- Urological/Rectal
- Ablation
- Nephrology
- Endovascular
- Guided biopsies
- Labor and childbirth
- Trauma response
- Animal monitoring
- Laparoscopic surgery
- Gastrointestinal
- Urinary

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Advanced Sensors

P330W Evaluation Kit, Analog Output Specifications

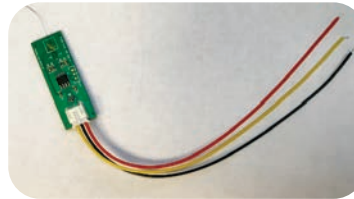
P330W Analog Evaluation Kit

No.	Characteristic	Symbol	Minimum	Typical	Maximum	Units
1	Supply Voltage	Vdd	4.75	5	5.25	V
2	Pressure Range	Prange	760		1210	mmHg A
3	Current Consumption	Ivdd		3		mA
4	Analog Pressure Output @Pmin*	AOUTmin		0.5		Volts
5	Analog Pressure Output @Pmax*	AOUTmax		4.5		Volts
6	Analog Output Accuracy	AACC		±6		mmHg
7	Proof Pressure	Pproof			TBD	mmHg A
8	Burst Pressure	Pburst			4500	mmHg A
Equation	Pressure = (112.5 * Vread) - 56.25	mmHg				

*Calibrated at sea level ~ 760 mmHg, Pmin = 0mmHgG, Pmax = 450 mmHgG.
Sensor output is ratiometric to power supply (10% to 90% of power supply)

3-Pin Connector (Analog)

Color	Function
Yellow	Vin
Black	GND
Red	Output



P330W Evaluation Kit, Digital Output Specifications

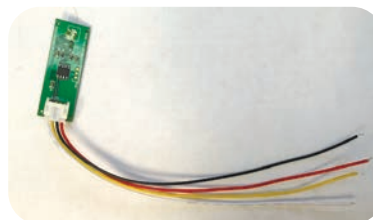
P330W Analog Evaluation Kit

No.	Characteristic	Symbol	Minimum	Typical	Maximum	Units
1	Supply Voltage	Vdd	4.75	5	5.25	V
2	Pressure Range	Prange	760		1210	mmHg A
3	Current Consumption	Ivdd		4		mA
4	Digital Pressure Output @Pmin*	DOOUTmin		1638		Counts
5	Digital Pressure Output @Pmax*	DOOUTmax		14746		Counts
6	Digital Full Scale Span	DFS		13107		Counts
7	Pressure Resolution	-		14		Bits
8	Digital Output I ² C Accuracy	DACC		±6		mmHg
9	Proof Pressure	Pproof			TBD	mmHg A
10	Burst Pressure	Pburst			4500	mmHg A
Equation	Pressure = ((DCounts / 16384.00 * 100.00)*5.625+703.75.	mmHg				

*Calibrated at sea level ~ 760 mmHg, Pmin = 0mmHgG, Pmax = 450 mmHgG.

4-Pin Connector (I²C)

Color	Function
White	Vin
Yellow	SDA
Black	SCL
Red	GND



Safety

The product shall be used only within power supply and electrical input and output limits as specified by the datasheet. Improper use of the product may result in product damage and property loss and/or personal injury. In use of the product, the customer has sole responsibility for designing and implementing a solution, which will ensure safe operation (including review of appropriate reliability or required redundancy, mitigation of failure modes, and/or meeting appropriate standards). The customer is responsible for review of any special conditions for use including, but not limited to, environmental conditions, electrical supply, residual risk, etc. Amphenol makes no warranty, representation or guarantee regarding the suitability of this product for any particular application, including safety critical applications. Nor does Amphenol assume any liability arising out of the application or use in any product or circuit. Amphenol specifically disclaims all liability without limitation consequential or incidental damages.

Shipping and Handling - P330W Eval Kit

P330W Eval Kits are shipped in individual cases. The case should be handled with care as forceful impacts could damage the die and connection to PCB. The PCB is supplied in a plastic enclosure to protect circuit board components. The die is mounted to a ceramic for ease of handling. Kits come with a wiring harness connected to a receptacle on the PC Board.



WARNING:

Do not pull on the wires. Doing so will damage the connection to the PC board.

Handling of the samples requires extreme care as both diaphragm of the sensor and contact node can be easily damaged by mechanical contact with an external object. The contact node should not be loaded with forces acting perpendicular to the top plane of the die where the solder joints are located.

Calibration data available upon request.

Contact Amphenol Representative in case of questions. Amphenol personnel will be able to answer your questions related to the samples and provide recommendations on sensor conditioning /calibration.

Ordering Information P330W Eval Kits

Part Number	Description
P330W-EVAL-D3	P330W Eval Kit, Digital Output
P330W-EVAL-A3	P330W Eval Kit, Analog Output

