

HIGH SPEED USB OUTPUT PRESSURE TRANSDUCER CONNECT DIRECTLY TO YOUR COMPUTER

High Speed
1000 Updates/per
Second

Gage and Absolute Pressures

25 mb to 345 bar

Vacuum and Compound Ranges

25 mb to 1 bar

Barometric and Differential Pressure Ranges

PXM409-USBH Series



Standard

- ✓ 1000 Readings/Second
- ✓ Micro-Machined Silicon Sensor
- ✓ 316L SS Wetted Parts
- ✓ High $\pm 0.08\%$ BSL Accuracy
- ✓ Excellent Long Term Stability
- ✓ USB 2.0 and Below Compatible
- ✓ Standard USB Connector Termination
- ✓ Shock and Vibration Rated
- ✓ Ruggedized with Secondary Containment

The PXM409 High Speed USBH Series connects directly to your computer. Free PC software enables you to chart, log, display, and output data for analysis. Also included are .NET APIs, and a command set for command-line access. The micro-machined silicon design is ideal for pressure or level applications in laboratory, test platforms, or bio/pharmaceutical applications as well as industrial applications that require a rugged, high accuracy transducer. The micro-machined silicon sensor provides a very stable transducer with exceptional high accuracy of $\pm 0.08\%$ and a broad compensated range of -29 to 85°C (-20 to 185°F). The modular construction allows for fast delivery of most configurations and fittings. Delivery is typically stock to 1 week!

SPECIFICATIONS

Accuracy: 0.08% BSL (linearity, hysteresis and repeatability combined)

Resolution: Up to 5.5 significant figures

Temperature Compensation (Over Compensated Range):

Span: Range > 350 mb: $\pm 0.5\%$
Range ≤ 350 mb: $\pm 1.0\%$

Zero: Range > 350 mb $\pm 0.5\%$
Range ≤ 350 mb $\pm 1.0\%$

Minimum Isolation:

100 M Ω @ 50 Vdc case to sensor
2 M Ω @ 50 Vdc case to output terminations

Pressure Cycles: 1 million, minimum

Long Term Stability (1-Year): $\pm 0.1\%$ full scale typical

A to D Conversion: 24-bit

Shock: 50 g, 11 ms half sine, vertical and horizontal axis

Vibration: 5-2000-5 Hz, 30 minute cycle,
Curve L, Mil-Spec 810 figure 514-2-2,
vertical and horizontal axis

Bandwidth: DC to 1000 updates per second typical ($\pm 3\%$)

Power Consumption: 0.35 W typical

Fast
Delivery!

PXM409-001BGUSBH
shown actual size.



2 m (6') integral
USB cable connects
directly to your PC.

FREE OMEGA® USBH Downloadable Software!

OMEGA is excited to announce the release of a major software update for USB Transducers! The fresh look and added features add even more value and flexibility to your transducer's performance.

Free OMEGA PC software takes the data from the transducer directly to the digital domain, turning your laptop or Windows® tablet (with USB connection) into a virtual meter, chart recorder, or data logger.

Also included are .NET APIs and a set for command-line access. Visit [ftp://ftp.omega.com/public/DASGroup/products/USBH/](http://ftp.omega.com/public/DASGroup/products/USBH/) to download your free copy.*

*Includes software to run TRH Central compatible devices.

CE Compliant: Meets industrial emissions and immunity EN61326

Environmental Protection: IP65

Secondary Containment

Gage/Vacuum/Compound Pressure:

25 to 350 mb: to 70 bar
1 to 70 bar: to 200 bar
100 to 350 bar: to 700 bar

Absolute/Barometric Pressure:

350 mb to 70 bar: to 400 bar
100 to 350 bar: to 700 bar

Zero Balance:

Ranges > 170 mB: $\pm 0.5\%$ typ. (1% max)
Ranges ≤ 170 mB: $\pm 1\%$ typ. (2% max)

Span Setting:

Ranges > 170 mB: $\pm 0.5\%$ typ. (1% max)
Ranges ≤ 170 mB: $\pm 1\%$ typ. (2% max)

Overpressure

Gage/Vacuum/Compound Pressure:

25 mb: 10 times span
70 mb: 6 times span
170 mb to 100 bar: 4 times span
175 to 350 bar: 500 bar maximum

Absolute/Barometric Pressure:

350 mb to 100 bar absolute: 4 times span
175 to 350 bar absolute: 500 bar maximum

Wetted Parts: 316L stainless steel

Weight: 200 g (7 oz)

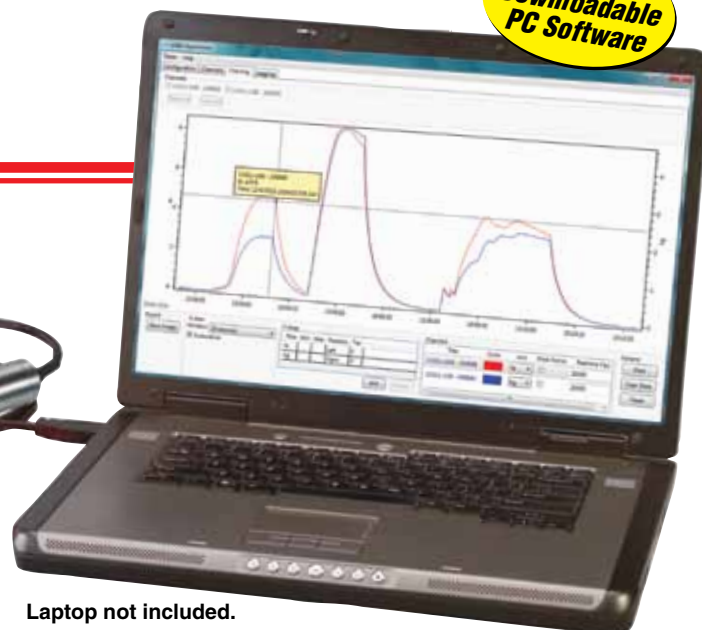
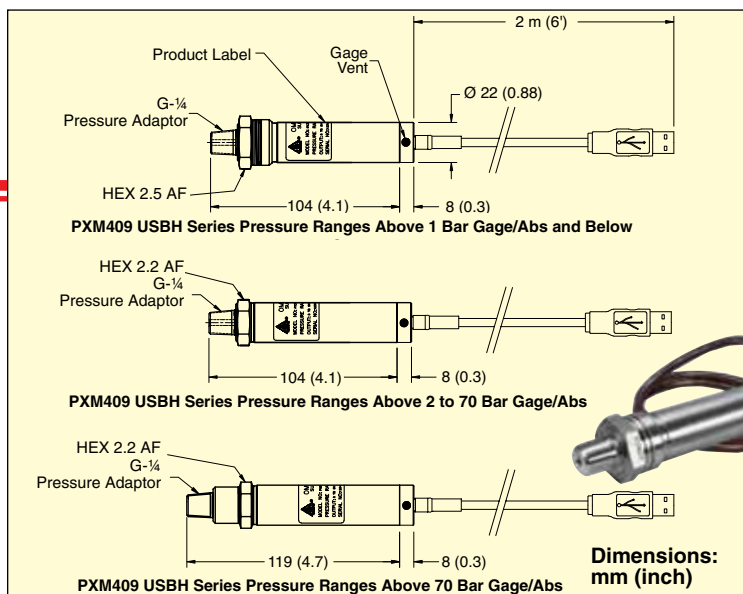
Operating Temperature Range: -40 to 85°C (-40 to 185°F)

Compensated Temperature:

Ranges > 350 mb: -29 to 85°C (-20 to 185°F)
Ranges ≤ 350 mb: -17 to 85°C (0 to 185°F)

USB OUTPUT
PRESSURE TRANSDUCERS
B

**Free
Downloadable
PC Software**



Laptop not included.

To Order

RANGE	GAGE PRESSURE MODEL NO.	ABSOLUTE PRESSURE MODEL NO.
GAGE (Relative) AND ABSOLUTE PRESSURE		
0 to 25 mbar	PXM409-025HGUSBH	—
0 to 70 mbar	PXM409-070HGUSBH	—
0 to 170 mbar	PXM409-170HGUSBH	—
350 mbar	PXM409-350HGUSBH	PXM409-350HAUSBH
1 bar	PXM409-001BGUSBH	PXM409-001BAUSBH
2 bar	PXM409-002BGUSBH	PXM409-002BAUSBH
3.5 bar	PXM409-3.5BGUSBH	PXM409-3.5BAUSBH
7 bar	PXM409-007BGUSBH	PXM409-007BAUSBH
10 bar	PXM409-010BGUSBH	PXM409-010BAUSBH
17.5 bar	PXM409-17.5BGUSBH	PXM409-17.5BAUSBH
35 bar	PXM409-035BGUSBH	PXM409-035BAUSBH
50 bar	PXM409-050BGUSBH	PXM409-050BAUSBH
70 bar	PXM409-070BGUSBH	PXM409-070BAUSBH
100 bar	PXM409-100BGUSBH	PXM409-100BAUSBH
175 bar	PXM409-175BGUSBH	PXM409-175BAUSBH
245 bar	PXM409-245BGUSBH	PXM409-245BAUSBH
350 bar	PXM409-350BGUSBH	PXM409-350BAUSBH
VACUUM RANGES (Ambient pressure = 0, output increases with vacuum)		
25 mbar	PXM409-025HVUSBH	—
70 mbar	PXM409-070HVUSBH	—
170 mbar	PXM409-170HVUSBH	—
350 mbar	PXM409-350HVUSBH	—
1 bar	PXM409-001BVUSBH	—
COMPOUND GAGE RANGES (Output is bi-directional with pressure)		
±25 mb	PXM409-025HCGUSBH	—
±70 mb	PXM409-070HCGUSBH	—
±170 mb	PXM409-170HCGUSBH	—
±350 mb	PXM409-350HCGUSBH	—
±1 bar	PXM409-001BCGUSBH	—
BAROMETRIC RANGES		
0 to 1100 hPa	—	PXM409-32HBUSBH
550 to 1100 hPa	—	PXM409-16HBUSBH
880 to 1100 hPa	—	PXM409-26HBUSBH

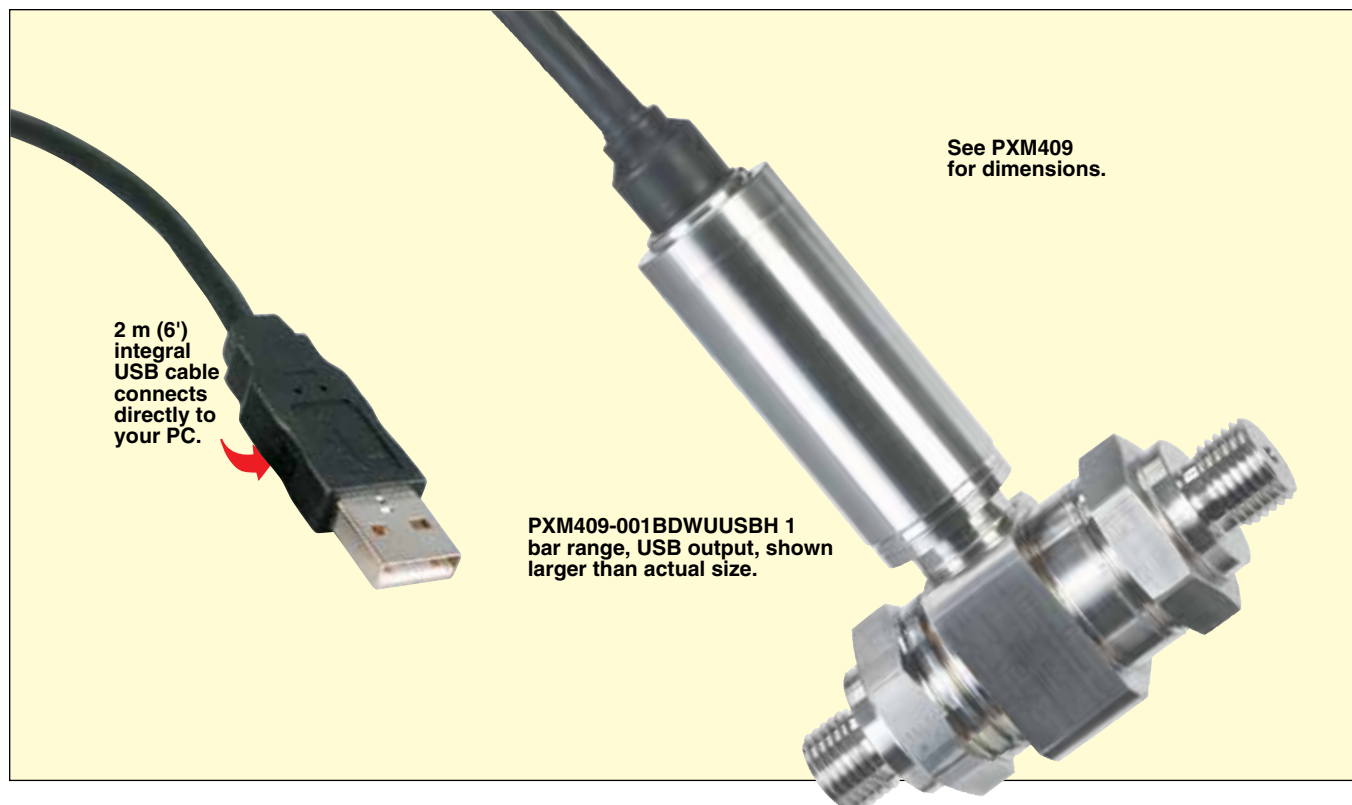
Comes complete with 5-point NIST traceable calibration certificate, cable with USB connector, and free downloadable PC software.

Ordering Examples: PXM409-17.5BAUSBH, 17.5 bar absolute pressure range, high speed USB output.

PXM409-16HBUSBH, 550 to 1100 hPa barometric pressure range, high speed USB output.

HIGH SPEED USB DIFFERENTIAL PRESSURE TRANSDUCERS

USB OUTPUT
PRESSURE TRANSDUCERS
B



SPECIFICATIONS DIFFERENTIAL MODELS

Ranges: Unidirectional 25 mb to 70 bar

Line/Static Pressure: 35 bar maximum applied to both sides simultaneously

High Side Containment Pressure (Differential)

Wet/Dry and Wet/Wet:

25 to 350 mb: to 70 bar

1 to 70 bar: to 200 bar

Overpressure (Differential):

Wet/Dry and Wet/Wet:

25 mb: 10 times span

70 mb: 6 times span

170 mb to 50 bar: 4 times span

70 bar: to 200 bar

Weight: 227 g (8 oz)

Line Pressure: 35 bar maximum

Fitting: G-1/4 male

To Order

RANGE	WET/DRY DIFFERENTIAL PRESSURE MODEL NO.	WET/WET DIFFERENTIAL PRESSURE MODEL NO.
DIFFERENTIAL PRESSURE		
0 to 25 mbar	PXM409-025HDDUUSBH	PXM409-025HDWUUSBH
0 to 70 mbar	PXM409-070HDDUUSBH	PXM409-070HDWUUSBH
0 to 170 mbar	PXM409-170HDDUUSBH	PXM409-170HDWUUSBH
350 mbar	PXM409-350HDDUUSBH	PXM409-350HDWUUSBH
1 bar	PXM409-001BDDUUSBH	PXM409-001BDWUUSBH
2 bar	PXM409-002BDDUUSBH	PXM409-002BDWUUSBH
3.5 bar	PXM409-3.5BDDUUSBH	PXM409-3.5BDWUUSBH
7 bar	PXM409-007BDDUUSBH	PXM409-007BDWUUSBH
10 bar	PXM409-010BDDUUSBH	PXM409-010BDWUUSBH
17.5 bar	PXM409-17.5BDDUUSBH	PXM409-17.5BDWUUSBH
35 bar	PXM409-035BDDUUSBH	PXM409-035BDWUUSBH
50 bar	PXM409-050BDDUUSBH	PXM409-050BDWUUSBH
70 bar	PXM409-070BDDUUSBH	PXM409-070BDWUUSBH

Comes complete with 5-point NIST traceable calibration certificate, cable with USB connector, and free downloadable PC software.

Ordering Examples: PXM409-17.5BDDUUSBH, 17.5 bar differential pressure range, unidirectional, Wet/Dry model, high speed USB output.

PXM409-025HDWUUSBH, 25 mbar differential pressure range, unidirectional Wet/Wet model, high speed USB output.

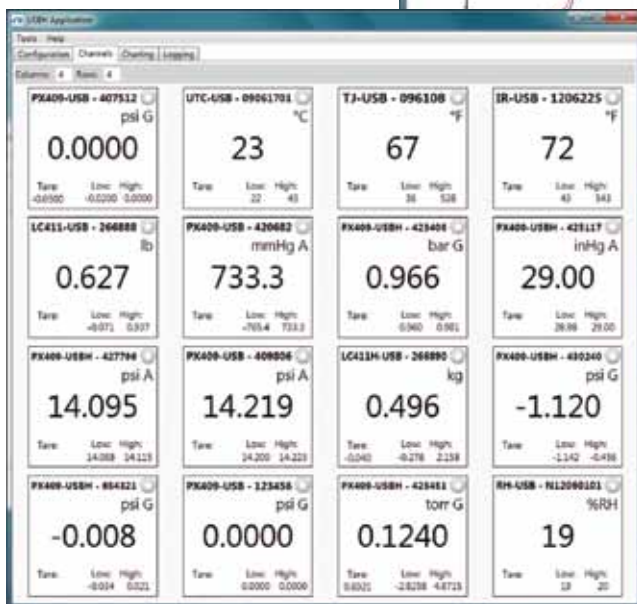
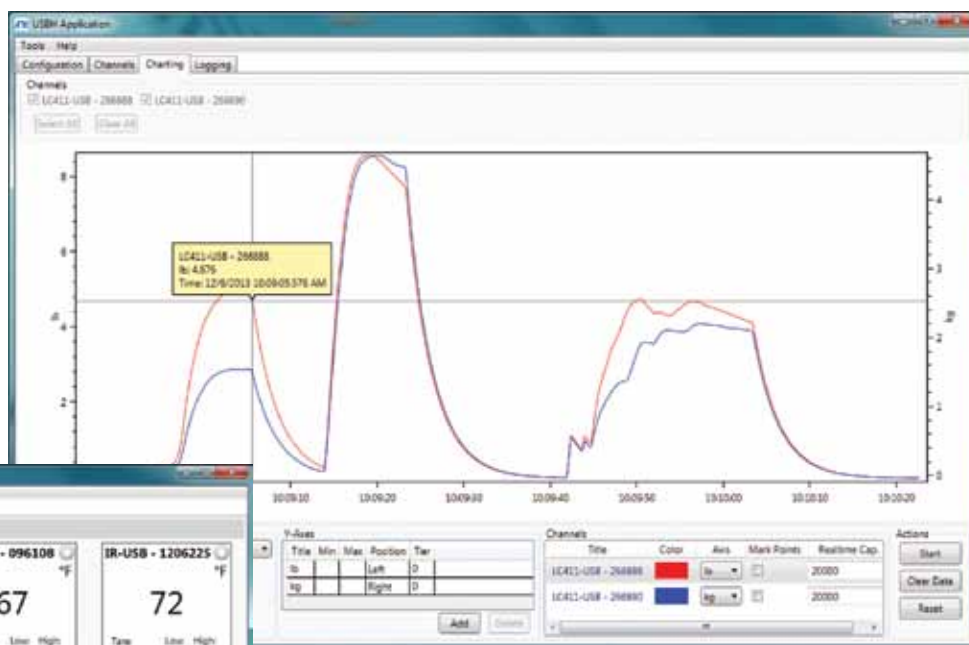
OMEGA USBH MAJOR SOFTWARE UPDATE

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Visit <ftp://ftp.omega.com/public/DASGroup/products/USBH/> to download your free copy.*

* Includes software to run TRH Central compatible devices.

Charting Window – The addition of a charting window allows you to see your data graphed in real time. The Y axis is configurable to allow simultaneous graphing of multiple engineering units. You can output the image of your data to a png file.



Channels Window – Display data from all of your sensors simultaneously. Each channel has configurable user alarms, three data filters, tare, resettable low/high indication, and sample rates ranging from 30 minutes to 1000 Hz.

PX409-USBH-425117	
Units	psi
Count	10
Last	14.2349
Low	14.2349
High	14.2353

Logging Window – A new xls filetype output option presents preformatted data for readability. In addition, Live Statistics are displayed, including the sensor information, the start/stop time, the number of samples taken, the current reading, and the High/Low readings. With the logging window, you can capture your data for later analysis.

Support for Omega Pressure, Force, Temperature, and Humidity USB Transducers

One software package supports:

PX409-*-USB, PX409-*-USBH, LC411-*-USBH, TJ-USB, IR-USB, RH-USB and UTC-USB transducers.

