HIGH SPEED USB OUTPUT PRESSURE TRANSDUCER
CONNECT DIRECTLY TO YOUR COMPUTER

High Speed 1000 Updates/per Second

Gage and Absolute Pressures
10 inH$_2$O to 5000 psi (25 mb to 345 bar)
Vacuum and Compound Ranges
10 inH$_2$O to 15 psi (25 mb to 1 bar)
Barometric and Differential Pressure Ranges

PX409-USBH, PXM409-USBH Series

Imperial and Metric

NIST CE
Standard

Fast Delivery!

PX409-015GUSBH shown actual size.

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

- ✔ **1000 Readings/Second**
- ✔ **Micro-Machined Silicon Sensor**
- ✔ **316L SS Wetted Parts**
- ✔ **High ±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 PX409 and 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 ±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 > 5 psi: ±0.5%
        Range ≤ 5 psi: ±1.0%
  Zero: Range > 5 psi: ±0.5%
        Range ≤ 5 psi: ±1.0%
Minimum Isolation:
  100 MΩ @ 50 Vdc case to sensor
  2 MΩ @ 50 Vdc case to output terminations
Pressure Cycles: 1 million, minimum
Long Term Stability (1-Year): ±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 (±3%)

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
https://www.omega.com/en-us/sensors-and-sensing-equipment/pressure-and-strain/pressure-transducers/p/PX409-Series to download your free copy.*
*Includes software to run TRH Central compatible devices.

Power Consumption: 0.35 W typical
CE Compliant: Meets industrial emissions and immunity EN61326
Environmental Protection: IP65

Metric threads and ranges available.

Secondary Containment
Gage/Vacuum/Compound Pressure:
  10 inH$_2$O to 5 psi: to 1000 psi
  15 to 1000 psi: to 3000 psi
  1500 to 5000 psi: to 10,000 psi
  25 to 350 mb: to 70 bar
  1 to 70 bar: to 200 bar
  100 to 350 bar: to 700 bar
Absolute/Barometric Pressure:
  5 to 1000 psia: to 6000 psia
  1500 to 5000 psia: to 10,000 psia
  350 mb to 70 bar: to 400 bar
  100 to 350 bar: to 700 bar
Zero Balance:
  Ranges > 170 mB: ±0.5% typ. (1% max)
  Ranges ≤170 mB: ±1% typ. (2% max)
Span Setting:
  Ranges > 170 mB: ±0.5% typ. (1% max)
  Ranges ≤170 mB: ±1% typ. (2% max)
Overpressure
Gage/Vacuum/Compound Pressure:
  10 inH$_2$O: 10 times span
  1 psi: 6 times span
  2.5 psi to 1000 psi: 4 times span
  1500 psi to 5000 psi: 7250 psi maximum
Absolute/Barometric Pressure:
  5 psia: 6 times span
  15 psia to 1000 psia: 4 times span
  1500 to 5000 psia: 7250 psia maximum
  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)
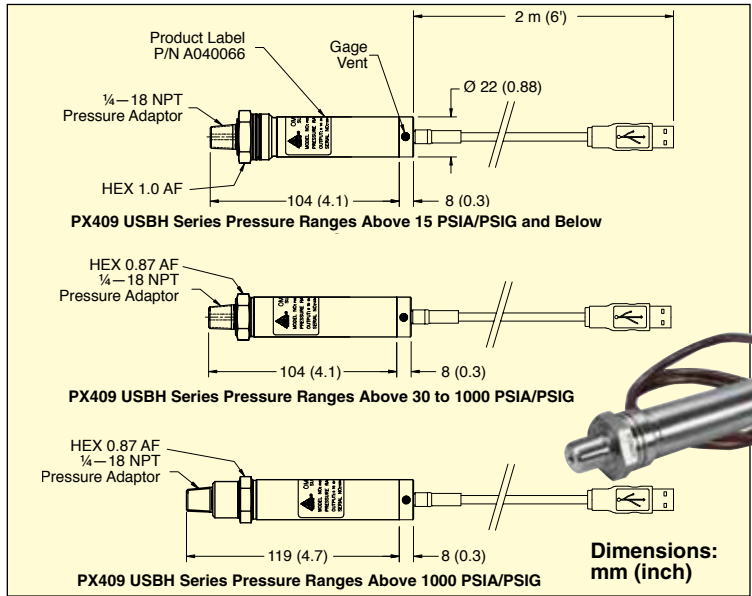**Operating Temperature Range:** -40 to 85°C (-40 to 185°F)
Compensated Temperature:
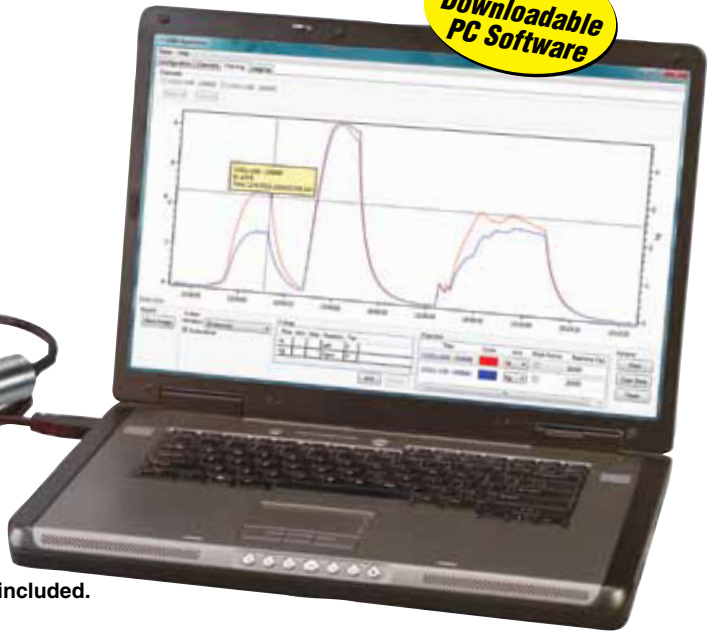 **Ranges >5 psi (350 mb):** -29 to 85°C (-20 to 185°F)
  Ranges ≤ 5 psi (350 mb): -17 to 85°C (0 to 185°F)

Product Label
P/N A040066

Gage
Vent

¼—18 NPT
Pressure Adaptor

2 m (6')

Ø 22 (0.88)

HEX 1.0 AF

104 (4.1)

8 (0.3)

PX409 USBH Series Pressure Ranges Above 15 PSIA/PSIG and Below

HEX 0.87 AF
¼—18 NPT
Pressure Adaptor

104 (4.1)

8 (0.3)

PX409 USBH Series Pressure Ranges Above 30 to 1000 PSIA/PSIG

HEX 0.87 AF
¼—18 NPT
Pressure Adaptor

119 (4.7)

8 (0.3)

**Dimensions:
mm (inch)**

PX409 USBH Series Pressure Ranges Above 1000 PSIA/PSIG

Laptop not included.

HIGH SPEED USB DIFFERENTIAL PRESSURE TRANSDUCERS

SPECIFICATIONS
DIFFERENTIAL MODELS

Ranges: Unidirectional 10 in H_2O to 1000 psi

Line/Static Pressure: 500 psi maximum applied to both sides simultaneously

High Side Containment Pressure (Differential)

Wet/Dry and Wet/Wet:

10 inH_2O to 5 psi: to 1000 psi
15 to 1000 psi: to 3000 psi

Overpressure (Differential)

Wet/Dry and Wet/Wet:

10 inH_2O: 3.6 psi
1 psi: to 6 psi
2.5 psi to 750 psi: 4 times span
1000 psi: to 3000 psi

Weight: 227 g (8 oz)
Line Pressure: 500 psi maximum
Fitting: ¼-18 NPT male

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

PX409-015DWUUSBH 15 psid range, USB output, shown smaller than actual size.

See PX409 for dimensions.

OPTION DESCRIPTIONS

Unit	**PX459** for Imperial
	PXM459 for Metric
Range *(Examples of range per unit per type. Please View All Models for all available ranges per pressure type. Explore Configurator for Custom Ranges)*	**10W** for Imperial Pressure 0 to 10 in H2O
	001 for Imperial Pressure 0 to 1 psi
	030 for Imperial Pressure 0 to 30 psi
	750 for Imperial Pressure 0 to 750 psi
	1.0K for Imperial Pressure 0 to 1000 psi
	16B for Imperial Barometric 16 to 32 inHg
	32B for Metric Pressure 0 to 32 inHg
	001B for Metric Pressure 0 to 1 bar
	350B for Metric Pressure 0 to 350 bar
	350H for Metric Compund Guage -350 to 350 mbar
	880H for Metric Barometric 880 to 1,100 mbar
Pressure Type	**G** for Gage
	A for Absolute (15 to 5000 psia)
	B for Barometric Pressure
	V for Vacuume (Negatice Guage)
	CG for Compund Guage (10W to 15 psi only)
	DWU for Wet/Wet Unidirectional Differential
	WDU for Wet/Dry Unidirectional Differential
Output Signal	**USBH** for High Speed USB

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

Ordering Examples: PX409-100DDUUSBH, *Wet/Dry 0 to 100 psi differential high speed USB output transducer.*

PX409-2.5DWUUSBH, *Wet/Wet 0 to 2.5 psi differential high speed USB output transducer.*

PX409-100GUSBH, *2 m (6') cable with USB termination, 100 psig range, USB output.*

PX409-16BUSBH, *2 m (6') cable with USB termination, 16 to 32 inHg absolute barometric range, USB output.*
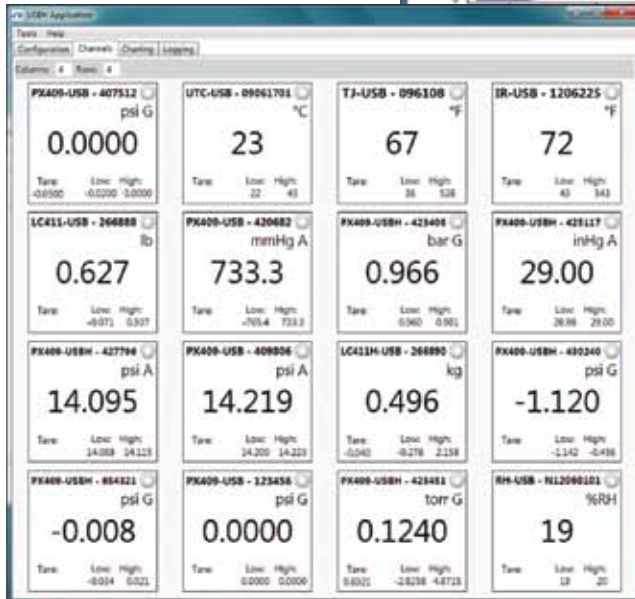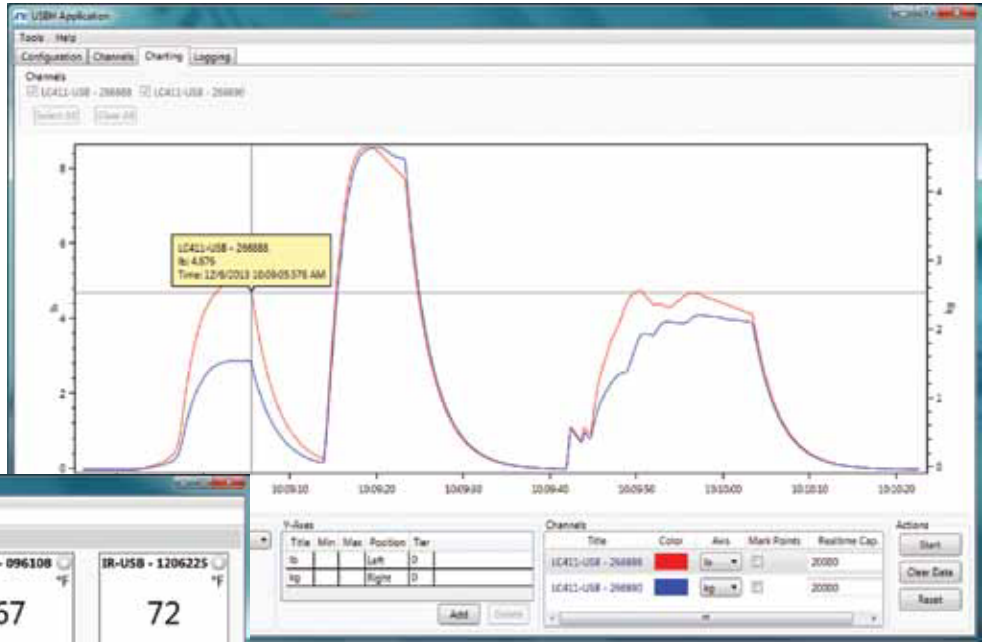
OMEGA USBH MAJOR SOFTWARE UPDATE

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Visit **https://www.omega.com/en-us/sensors-and-sensing-equipment/pressure-and-strain/pressure-transducers/p/PX4 09-Series** 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.

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.

PX409-USBH-425117

Units	psi
Count	10
Last	14.2349
Low	14.2349
High	14.2353

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.