

## ACCURACY

0 to 20% of Range:  $\pm(0.02\%$  of Full Scale)

20% to 110% of Range:  $\pm(0.1\%$  of Reading)

Vacuum:  $\pm(0.25\%$  of Full Scale\*)

\* Full Scale = -1.0 bar

Includes all effects of linearity, hysteresis, repeatability, temperature, and stability for one year.

All models indicate vacuum, but vacuum specification applies to 1 bar, 2 bar, 7 bar, and 20 bar models only.

Not recommended for continuous use below -1.0 bar. Refer to [XP2i-DP data sheet](#) for gauges that are intended for continuous high vacuum use.

## OPERATING TEMPERATURE

Temperature Range: **-10 to 50° C (14 to 122° F)**

Non-condensing. No change in accuracy over operating temperature range. Gauge must be zeroed to achieve rated specification.

## DISPLAY

Screen: **5.5 digits**

Single Line Display: **16.9 mm (0.67") high**

Dual Line Display: **Main Display: 13.9 mm (0.55")  
Secondary Display: 5.3 mm (0.21")**

Display Rate: **4 readings/second (standard)  
8 readings/second (PSV mode)**

LCD readable in sunlight with bright backlight.

PSV mode is intended for Pressure Safety Valve testing, and requires software to enable. (ConfigXP is a free download from [XP2i.com](#).)

## POWER

3 x AA: **1500 hours, typical**

Ultra Low Power: **> 1 year, typical\*\***

Uses 3 alkaline AA (LR6) batteries. Use of backlight and/or RS232 reduces operating time.

Optional AC power supply available.

**WARNING:** Do not use AC power supply in hazardous locations.

\*\*20 minute recording interval or greater in LT5 mode.

## DATA/COMMUNICATION

Digital Interface: **RS232, DB-9F**

Free Labview® drivers and programming instructions are available for download from website.

**WARNING:** Do not use RS232 in hazardous locations.

## DATALOGGING

Capacity: **32 000 data points**

Storage Type: **Non-volatile flash memory**

Minimum Interval: **1 second**

Maximum Interval: **18 hours**

Min. Event Duration: **250 mS\*\*\***

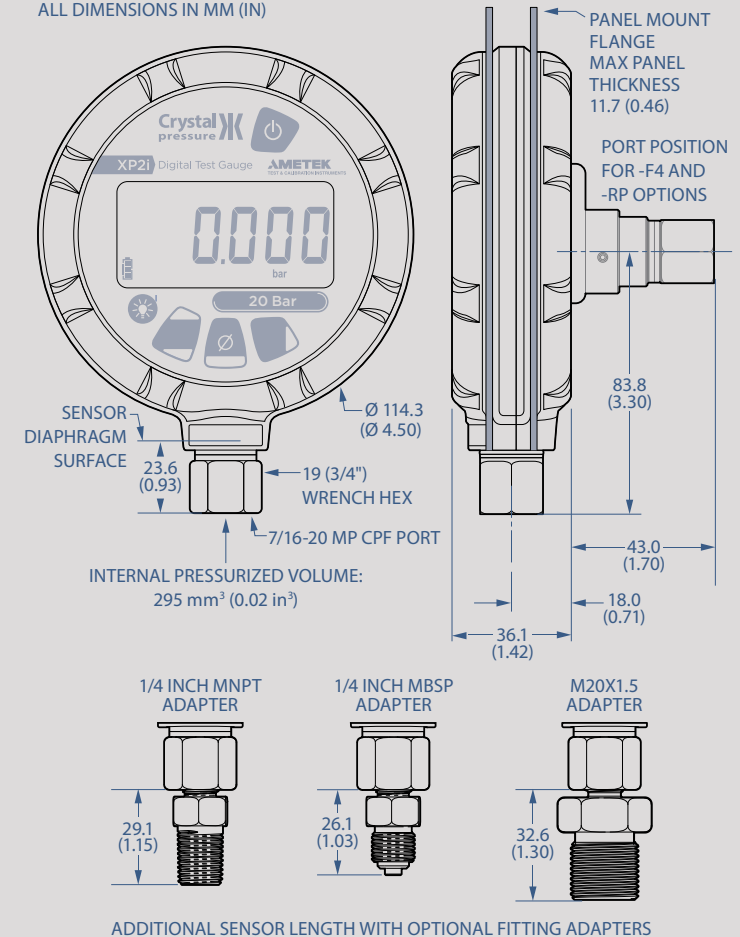
DataLoggerXP Firmware Update may be purchased at time of order, or an Upgrade Package may be purchased afterward.

Software available for download from our website. Compatible with 32 & 64 bit Windows 7, Vista, and XP (32 bit only). Produces csv files, or uses Excel template files (samples included) to automatically format and graph data.

\*\*\* Logging Type - Average with Peaks.

U.S. PATENT D612277

ALL DIMENSIONS IN MM (IN)



## ENCLOSURE

Weight: **562 g (19.8 oz)**

Rating: **IP67**

Housing: **Diecast aluminum**

Keypad and Labels: **UV Resistant Polyester**

*Weight includes batteries.*

*Submersible to 1 m for 30 minutes [IEC 60529].*

*Nickel plating over low copper, marine grade aluminum.*

*LCD protected from impact damage by 1.5 mm (0.06") thick polycarbonate lens under polyester window.*

*Skydrol® compatible.*

## SENSOR

Wetted Materials: (WRENCH TIGHT) **316 stainless steel**

(FINGER TIGHT) **316 stainless steel  
and Viton® (internal o-ring)**

Diaphragm Seal Fluid: **Silicone Oil**

Connection: **Crystal CPF Female**

*All welded, with a permanently filled diaphragm seal.*

*Metal to metal cone seal; O-ring can be removed if necessary.*

*Optional connection on back.*

*1/4" male NPT adapter included unless BSP, M20, or 1KBAR is specified.*

*1/4" medium pressure tube system compatible with HiP LM4 and LF4 Series, Autoclave Engr SF250CX Male and Female Series.*

## STORAGE TEMPERATURE

Temperature Range: **-40 to 75° C (-40 to 167° F)**

*Batteries should be removed if stored for more than one month.*

## SPECIAL FEATURES

The following requires the use of our free [ConfigXP](#) software

User Defined Unit: **Allows the user to define and display any pressure units not included, or to use the gauge to display force, level, or other pressure related parameters. Reduce or increase displayed resolution.**

PSV Mode: **Intended for pressure safety valve / burst disk testing. 8 readings per second. Captures point at which valve opens, as well as reset pressure.**

Averaging: **Smooths unsteady readings (1 to 10 samples).**

Remove: **Unwanted pressure units from Units button.**

Disable: **Peak pressure button.**

Limit or Disable: **Zero button.**

Password Protect: **Changes to configuration or calibration factor(s).**

Save: **Configuration to a file.**

Copy: **Configuration can be copied to other gauges.**

# XP2i Pressure Gauge bar

## CERTIFICATIONS



**II 1G Ex ia IIC T4/T3 Ga  
FTZU 12 ATEX 0048X**

This product conforms to:

**EN 60079-0: 2009 | EN 60079-11: 2012 | EN 60079-26: 2007**



**Ex ia IIC T4/T3 Ga  
IECEx FTZU 12.0009X**

This product conforms to:

**IEC 60079-0: 2011 | IEC 60079-11: 2011-06 | IEC 60079-26: 2006**



Intrinsically Safe and Non-incendive for Hazardous Locations: Class I, Division 1, Groups A, B, C and D, Temperature Code T3C or T4/T3C.



XP2i complies with the Electromagnetic Compatibility and the Pressure Equipment Directives. Refer to the EC Declaration of Conformity for specific details.



The instrument was tested against **AS/NZS 3584**, C-tick EMC/EMI requirements.



XP2i is approved for use as a portable test instrument for Marine use and complies with Det Norsjke Veritas' Rules for Classification of Ships, High Speed & Light Craft and Offshore Standards.

**RANGE & RESOLUTION TABLE**

P/N	Range (bar)	Over-pressure	Display Resolution									
			bar	mbar	kPa	MPa	psi	in H <sub>2</sub> O	in Hg	mm Hg	mm H <sub>2</sub> O	kg/cm <sup>2</sup>
1BAR	1	6.5 x	0.0001	0.1	0.01	0.00001	0.001	0.01	0.001	0.01	1	0.0001
2BAR	2	3.0 x	0.0001	0.1	0.01	0.00001	0.001	0.01	0.001	0.1	1	0.0001
7BAR	7	2.0 x	0.0001	0.1	0.01	0.00001	0.01	0.1	0.01	0.1	1	0.0001
20BAR	20	2.0 x	0.001	1	0.1	0.0001	0.01	0.1	0.01	1		0.001
30BAR	30	2.0 x	0.001	1	0.1	0.0001	0.01	1	0.1	1		0.001
70BAR	70	2.0 x	0.001		0.1	0.0001	0.1		0.1			0.001
140BAR	140	2.0 x	0.01		1	0.001	0.1		0.1			0.01
200BAR	200	1.5 x	0.01		1	0.001	0.1		0.1			0.01
300BAR	300	1.5 x	0.01		1	0.001	0.1		1			0.01
700BAR	700	1.5 x	0.01		1	0.001	1					0.01
1KBAR	1000	1.3 x	0.01		1	0.001	1					0.01

**ORDERING INFORMATION\***

P/N	Model	Dual Display	Adapter Type	Connection Location	Data-logging	CPF* Fitting Kits	Pump System**	Liquid (Systems C-H)	Carrying Case~
	XP2i								
Standard:	No ... (omit)	NPT ..... (omit)	Bottom ..... (omit)	No ..... (omit)	No ..... (omit)	No ..... (omit)	No Pump. .... (omit)		
Optional:	Yes.... -DD	G 1/4 B .... -BSP	Back ..... -RP	Yes..... -DL	NPT Kit (4013) ... -N	BSP Kit (4015) ... -B	System A (pneumatic) 0 to 2 bar ..... -AXX	Full ..... (omit)	Aluminum ... (omit)
		M20x1.5... -M20	Panel Mount ... -F4				System A (pneumatic) 0 to 40 bar ..... -AHX	Drained..... -E	Waterproof ..... -W
							System B (pneumatic) -0.91 to 2 bar ..... -BXX		
							System B (pneumatic) -0.91 to 40 bar ..... -BHX		
							System C (oil) 0 to 200 bar ..... -CXX		
							System C (oil) 0 to 350 bar ..... -CHX		
							System D (oil) 0 to 350 bar ..... -DOX		
							System D (water) 0 to 350 bar ..... -DWX		
							System E (oil) 0 to 700 bar ..... -EOX		
							System F (oil) 0 to 1000 bar ..... -FOV		
							System F (water) 0 to 1000 bar ..... -FWV		
							System G (oil) 0 to 1000 bar ..... -GOX		
							System G (water) 0 to 1000 bar ..... -GWX		
							System H (oil/pneumatic) -0.91 to 40 bar and 0 to 350 bar ..... -HOX		

**SAMPLE PART NUMBERS**

- 20BARXP2i ..... 20 bar standard gauge, with a 1/4" NPT pressure fitting.
- 300BARXP2i-BSP-DL ..... 300 bar gauge, with a 1/4" BSP pressure fitting and Data-logging.
- 700BARXP2i-DD-N-GWX-E-W ..... 700 bar Dual Display gauge with an NPT CPF fitting kit; a System G pump system; no liquid; and a waterproof carrying case.

*Note: The 1KBAR gauge is available only with the CPF fitting.*

**Ordering a Pump System Only**

Any pump system, carrying case, and connection fittings for an XP2i pressure gauge may be ordered separately from the gauge. Enter XP2i-NONE followed by the Pump System part number and the Carrying Case option code.

**SAMPLE PART NUMBER**

- XP2i-NONE-GWX-W ..... System G pump system with a waterproof carrying case.

\*BAR versions available in USA direct from factory only.

\* All fittings are rated to 700 bar, with the exception of the MPF-1/2QTF rated to 350 bar.  
 \*\* Refer to the following page for a more detailed description of each Pump System.  
 ~ The Waterproof Case is an option for Systems A, B, and C only. The Waterproof Case is the only option for Systems G and H.



900 Series

## PUMP SYSTEMS

All pump systems for the XP2i include 1/4 NPT and BSP female fittings and a carrying case with custom insert. Additional fittings and accessories included with individual systems are listed below.

- ▶ **Systems A...** AXX (T-960), AHX (T-970)  
MPH-1 hose, bonded seals, o-ring kit, and teflon tape.



600 Series

- ▶ **Systems B...** BXX (T-965), BHX (T-975-CPF)  
MPH-1 hose, bonded seals, o-ring kit, and teflon tape.

- ▶ **Systems C...** CXX (T-620), CHX (T-620H-CPF)  
MPH-1 hose, MPF-CAP, MPM-PLUG, bonded seals, o-ring kit, and teflon tape.



P-018-CPF

- ▶ **Systems D...** DOX and DWX (P-018-CPF)  
Bonded seals, o-ring kit, and teflon tape.

- ▶ **System E...** EOX (P014)  
Bonded seals, o-ring kit, and teflon tape.



P014

- ▶ **Systems F...** FOV and FWV (T-1-CPF)  
Bonded seals, o-ring kit, and teflon tape.

- ▶ **Systems G ...** GOX and GWX (GaugeCalHP)  
Carrying case hold-down straps.

- ▶ **System H...** HOX (T-975-CPF and T-620H-CPF)  
MPF-CAP, MPM-PLUG, bonded seals, o-ring kit, and teflon tape.



T-1-CPF

## CPF FITTING KITS

- ▶ **NPT Kit...** -N (4013)  
Includes MPF-1/8QTF, MPF-1/4QTF, and MPF-1/2QTF.

- ▶ **BSP Kit...** -B (4015)  
Includes MPF-1/8BSPF, MPF-1/4BSPF, MPF-3/8BSPF, and MPF-1/2BSPF.



GaugeCalHP

## ACCESSORIES



### Protective Boot P/N 3696

Protect your XP2i even more from harsh environments with our form fitting chemical resistant thermoplastic boot (Skydrol fluid compatible).

### AC Adapter Kit P/N 2984

For continuous use applications without battery replacement concern. Input voltage: 100 - 240V, 50-60 Hz. Includes all available international plugs. (Not for use in hazardous locations.)

## COMPLIMENTARY PRODUCTS

Crystal Engineering offers a wide range of products that work with the XP2i:

- [Fittings that connect without tools, safely and without leaks](#)
- [Lightweight, super flexible high pressure hoses](#)
- [Complete Calibration Kits](#)
- [Pneumatic hand pumps](#)
- [Hydraulic hand pumps](#)
- [Portable pressure comparators](#)
- [Software, for the quickest way to calibrate pressure transmitters and gauges](#)

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HiP is High Pressure Equipment Company.

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