

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")

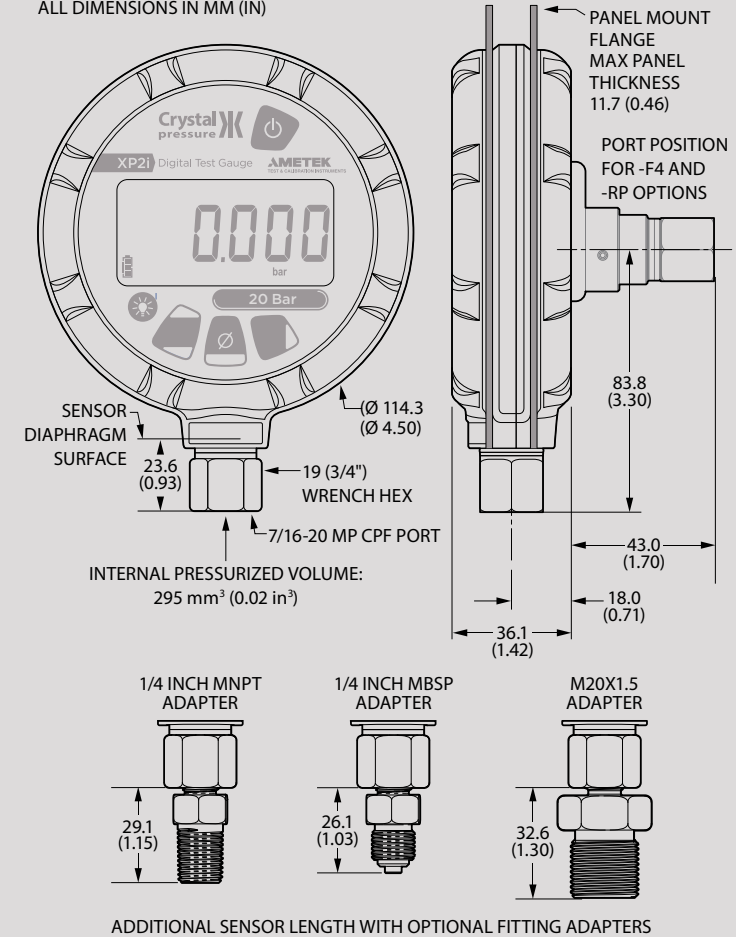
Display Rate: **4 readings/second (standard)**
8 readings/second (PSV mode)

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.)

U.S. PATENT D612277

ALL DIMENSIONS IN MM (IN)



POWER

The XP2i is Intrinsically Safe only if powered by one of the following battery types.

ATEX/IECEX:	Approved Battery Type	Ta=	Marking
	Rayovac Max Plus 815	-20 to 50° C	Ex ia IIC T4 Ga
	Energizer E91		
	Energizer EN91	-20 to 50° C	Ex ia IIC T3 Ga
	Duracell MN1500		

CSA:	Approved Battery Type	Ta=	Marking
	Rayovac Max Plus 815	-20 to 45° C	Class I, Division 1, A, B, C, D T4
	Energizer E91	-20 to 50° C	Class I, Division 1, A, B, C, D T3C
Energizer EN91			
Rayovac Max Plus 815			

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.

For hazardous location product warnings, refer to the operation manual.

**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.

For hazardous location product warnings, refer to the operation manual.

DATALOGGING

Capacity: **32 000 data points**

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

Minimum Interval: **1 second**

Maximum Interval: **18 hours**

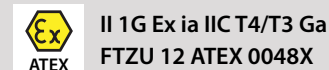
Min. Event Duration: **250 mS*****

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.

CERTIFICATIONS



This product conforms to:

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



This product conforms to:

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



Exia Intrinsically Safe and Non-incendive for Hazardous Locations: Class I, Division 1, Groups A, B, C and D, Temperature Code T4 or T3C. For hazardous location product warnings, refer to the operation manual.



XP2i complies with the Electromagnetic Compatibility and the Pressure Equipment Directives.



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.

ENCLOSURE

Weight: 562 g (19.8 oz)	<i>Weight includes batteries.</i>
Rating: IP67	<i>Submersible to 1 m for 30 minutes [IEC 60529].</i>
Housing: Diecast aluminum	<i>Nickel plating over low copper, marine grade aluminum.</i>
Keypad and Labels: UV Resistant Polyester	<i>LCD protected from impact damage by 1.5 mm (0.06") thick polycarbonate lens under polyester window.</i>
	<i>Skydrol® compatible.</i>
	For hazardous location product warnings, refer to the operation manual.

SENSOR

Wetted Materials: (WRENCH TIGHT) 316 stainless steel	<i>All welded, with a permanently filled diaphragm seal.</i>
(FINGER TIGHT) 316 stainless steel and Viton® (internal o-ring)	<i>Metal to metal cone seal; O-ring can be removed if necessary.</i>
Diaphragm Seal Fluid: Silicone Oil	<i>Optional connection on back.</i>
Connection: Crystal CPF Female	<i>1/4" male NPT adapter included unless BSP, M20, or 1KBAR is specified.</i>
	<i>1/4" medium pressure tube system compatible with HiP LM4 and LF4 Series, Autoclave Engr SF250CX Male and Female Series.</i>

STORAGE TEMPERATURE

Temperature Range: -40 to 75° C (-40 to 167° F)	<i>Batteries should be removed if stored for more than one month.</i>
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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 reseal 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.**

RANGE & RESOLUTION TABLE

P/N	Range (bar)	Over-pressure	Display Resolution									
			bar	mbar	kPa	MPa	psi	in H ₂ O	in Hg	mm Hg	mm H ₂ O	kg/cm ²
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, and teflon tape.



P-018-CPF

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

- ▶ **System E...** EOX (P014)
Bonded seals and teflon tape.



P014

- ▶ **Systems F...** FOV and FWV (T-1-CPF)
Bonded seals 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. For hazardous location product warnings, refer to the operation manual.

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.

Viton is a registered trademark of DuPont Performance Elastomers.