CRYSTAL

ACCURACY

0 to 20% of Range:	±(0.02% of Full Scale)
20% to 110% of Range:	±(0.1% of Reading)
Vacuum:	±(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, 16.9 mm (0.67") high
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. 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.

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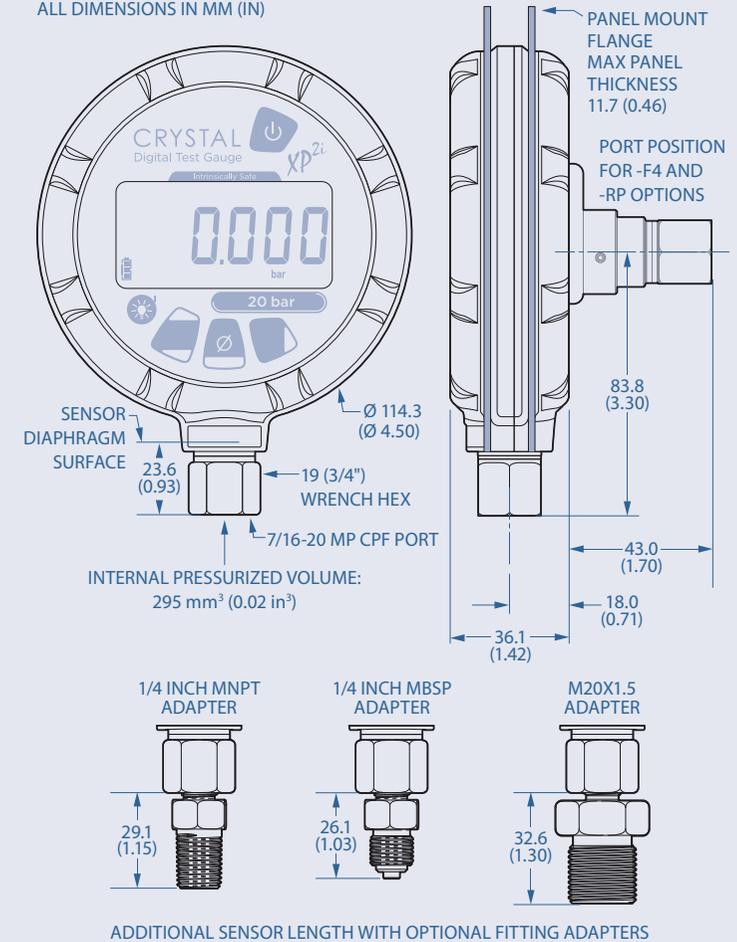
Software available for download from our website. Compatible with 32 & 64 bit Windows 7, Vista, and XP (32 bit only). Produces csv files, or uses Excel template files (samples included) to automatically format and graph data.

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

U.S. PATENT D612277
ALL DIMENSIONS IN MM (IN)

PANEL MOUNT FLANGE MAX PANEL THICKNESS 11.7 (0.46)

PORT POSITION FOR -F4 AND -RP OPTIONS

CRYSTAL
Digital Test Gauge
XP2i
0.000 bar
20 bar

SENSOR DIAPHRAGM SURFACE

Ø 114.3 (Ø 4.50)

23.6 (0.93)

19 (3/4") WRENCH HEX

7/16-20 MP CPF PORT

INTERNAL PRESSURIZED VOLUME: 295 mm³ (0.02 in³)

83.8 (3.30)

43.0 (1.70)

18.0 (0.71)

36.1 (1.42)

1/4 INCH MNPT ADAPTER	1/4 INCH MBSP ADAPTER	M20X1.5 ADAPTER
29.1 (1.15)	26.1 (1.03)	32.6 (1.30)

ADDITIONAL SENSOR LENGTH WITH OPTIONAL FITTING ADAPTERS

ENCLOSURE

Weight:	**562 g (19.8 oz)**	*Weight includes batteries.*
Rating:	**IP67**	*Submersible to 1 m for 30 minutes [IEC 60529].*
Housing:	**Diecast aluminum**	*Nickel plating over low copper, marine grade aluminum.*
Keypad and Labels:	**UV Resistant Polyester**	*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**	*All welded, with a permanently filled diaphragm seal.*
	(FINGER TIGHT) **316 stainless steel and Viton® (internal o-ring)**	*Metal to metal cone seal; O-ring can be removed if necessary.*
		Optional connection on back.
Diaphragm Seal Fluid:	**Dow Corning® 200**	*1/4" male NPT adapter included unless BSP or M20 is specified.*
Connection:	**Crystal CPF Female**	*1/4" medium pressure tube system compatible with HiP LM4 and LF4 Series, Autoclave Engr SF250CX Male and Female Series.*
		Can be cleaned and certified for oxygen service.

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 reseat 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.**

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

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.

CRYSTAL

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						0.01

ORDERING INFORMATION*

P/N	Model	Adapter: **Type**	Connection: **Location**	Panel Mount?	Data-logging?	Oxygen Service?
_____	XP2i	_____	_____	_____	_____	_____
Standard:		NPT: **(omit)**	Bottom: **(omit)**	No: **(omit)**	No: **(omit)**	No: **(omit)**
Options:		G 1/4 B: **-BSP**	Back: **-RP**	Yes: **-F4**	Yes: **-DL**	Yes: **-O**
		M20x1.5: **-M20**	"omit" for -F4 panel mount	Includes -RP option		

SAMPLE PART NUMBERS

20BARXP2I .... **20 bar standard gauge, with a 1/4" NPT pressure fitting**

30BARXP2I-BSP-O .... **30 bar gauge, with a 1/4" BSP pressure fitting and Oxygen Service options**

*BAR versions available in USA direct from factory only.

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 continous 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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