

D I G I T A L P R E S S U R E G A U G E S

New!



XP2i

They're **not** like **other pressure gauges**

Features only a digital gauge can offer



Easy to read display - day or night

5 full digits - great for leak testing



Available in ranges from 15 PSI to 10,000 PSI



Pressure units easily accessible

Capture peak High or Low pressure for relief valve testing

Specified in percent of reading

Like deadweight testers

Crystal Engineering is the company that designs, manufactures and services the *XP2i*, 30 Series pressure calibrators, MultiCal multimeter pressure adapters and a variety of industry specific pressure measuring equipment. Crystal Engineering pioneered features like full temperature compensation and "of reading" rated pressure gauges and calibrators. Pressure measuring equipment is the only thing we do, and that's why we say:

PRESSURE is Our BUSINESS™

The *XP2i* series are unlike any other pressure gauges.

Their looks, performance and construction are different from anything else available.

***XP2i*s are very rugged.** The display is protected by a hard polycarbonate lens, circuitry is mounted in elastomer (for shock resistance) and the case and sensor are stainless steel (providing corrosion resistance and an excellent barrier to emissions from cell phones, two-way radios and other electrically noisy equipment.) The case is gasketed and water resistant per NEMA4 and IP66. A replaceable filter in the sensor keeps out debris. Unlike mechanical gauges, *XP2i*s have the ability to survive large over-pressure events with no change in calibration.



Optional

Dual line display

Peak and live pressure displayed simultaneously - ideal for relief valve testing!

S P E C I F I C A T I O N S

XP²s are very easy to use. No menus - just buttons. *XP²s* can be calibrated via the keypad or the RS232 port. The display backlight is one of the best available on this type of gauge. Combine an *XP²* with a (calibration grade) pressure controller, and you can calibrate *XP²s* automatically!

They're very accurate. *XP²s* are rated in percent of reading - like deadweight testers - but unlike deadweight testers, they're not affected by ambient temperature (or local gravity). *XP²s* are fully temperature compensated, so the accuracy is the same over the entire operating temperature range, and they can be used to measure vacuum. Because the rating is "of reading" - one *XP²* can often replace two or more ordinary gauges!

Intrinsically Safe!

RS232 interface - Measurements can be recorded to a PC!

Water resistant per NEMA4/IP66

ACCURACY

20% to 100% of Full Scale: $\pm(0.1\% \text{ of Reading})$

0 to 20% of Full Scale: $\pm(0.02\% \text{ of Full Scale})$

Vacuum, for 2000kPa (300 PSI) and lower pressure gauges:

0 to -99.9 kPa(-14.5 PSIG): $\pm(0.25\% \text{ of Full Scale})$,

where F.S.: -99.9 kPa (-14.5 PSIG)

PRESSURE RANGES

See Ordering Information, next page

Note: Density of water conversion can be selected

via the keypad: 4°C, 60°F or 20°C/68°F

DISPLAY

Description: 5 Full (seven segment) digits

Internal resolution always exceeds displayed resolution

Display rate: 3 readings per second

Numeral Display height: 16.5mm (0.65") single line display

14 mm (0.55") for main numerals of dual line display

TEMPERATURE

Operating & Compensated: -10°C to 50°C(14°F to 122°F)

Storage: -20°C to 70°C (-4°F to 158°F)

CONNECTIONS

Pressure Connection: 1/4" male NPT

Electrical Connection: DB9, RS-232 (environmentally sealed)

MEDIA COMPATIBILITY

Liquids and gases compatible with 316 stainless steel

Available certified for oxygen service

POWER

Battery: Three size AA (RS6) batteries

Battery Life: 1500 hours typical (alkaline battery)

Low Battery Indicator: Displayed battery icon

ENCLOSURE

Description: 300 series SS sealed to NEMA4/IP66

Weight: 500g (17.6 oz.), including batteries

INTRINSIC SAFETY

Exia Intrinsically Safe, Class I, Division 1,
Groups A, B, C & D, Temperature code T4



OPTIONS

Dual Line Display: Peak pressure readings are displayed on a second line

Panel Mounting: Add option F4 for panel mounting (the *XP²* fits in a 4 1/2" gauge cutout).

XP²s with the F4 option can also be adapted to fit into 6" or 8 1/2" gauge cutouts - see accessories section on next page.



Specifications are for one year and include all effects of linearity, hysteresis, repeatability, and temperature.

ORDERING INFORMATION

Pressure Ranges, Pressure Units⁽¹⁾ & Resolution

PSI			Bar			kPa ⁽⁴⁾											
Part # Prefix	Range PSI ⁽²⁾	max PSI ⁽³⁾	Part # Prefix	Range bar ⁽²⁾	max bar ⁽³⁾	Part # Prefix	Range kPa ⁽²⁾	max kPa ⁽³⁾	PSI	kg/cm ²	inch Hg	inch H ₂ O	mm Hg	mm H ₂ O	kPa ⁽⁴⁾	Bar ⁽⁴⁾	mBar ⁽⁴⁾
15PSI	15	100	1BAR	1	7	100KPA	100	700	0.001	0.0001	0.001	0.01	0.01	1	0.01	0.0001	0.1
30PSI	30	100	2BAR	2	7	200KPA	200	700	0.001	0.0001	0.001	0.01	0.1	1	0.01	0.0001	0.1
100PSI	100	200	7BAR	7	14	700KPA	700	1400	0.01	0.0001	0.01	0.1	0.1	1	0.01	0.0001	0.1
300PSI	300	600	20BAR	20	42	2KKPA	2000	4200	0.01	0.001	0.01	0.1	1		0.1	0.001	1
500PSI	500	1000	30BAR	30	70	3KKPA	3000	7000	0.01	0.001	0.1	1	1		0.1	0.001	1
1KPSI	1000	2000	70BAR	70	140	7KKPA	7000	14000	0.1	0.001	0.1				0.1	0.001	
2KPSI	2000	4500	140BAR	140	350	14KKPA	14000	35000	0.1	0.01	0.1				1	0.01	
3KPSI	3000	4500	200BAR	200	350	20KKPA	20000	35000	0.1	0.01	0.1				1	0.01	
5KPSI	5000	7500	300BAR	300	450	30KKPA	30000	45000	0.1	0.01	1				1	0.01	
10KPSI	10000	15000	700BAR	700	1000	70KKPA	70000	100000	1	0.01					1	0.01	

⁽¹⁾ Pressure units not desired may be disabled via RS-232, using optional configuration software.

⁽²⁾ **XP²**s will indicate pressure up to 10% above this number. Above 110% of this rating the **XP²** display will flash, indicating that the applied pressure exceeds the calibrated pressure range, and that the displayed pressure may not be accurate.

⁽³⁾ Max PSI, max Bar and max kPa are the maximum pressures the gauge can withstand without damage. The gauge *will not* indicate pressure up to this number.

⁽⁴⁾ kPa models can display pressure in kPa and Bar (or mBar), only. PSI and bar models have all available units.

Part Numbering System

(Prefix)XP2I(-Options)

Part # Prefix:

Choose from table above

-DD: Dual Line Display*

-RP: Rear Port Fitting

-F4: 4 1/2" Panel Mount Flange

-O: Cleaned for Oxygen Service

*-DD may be combined with and followed by the -RP or -F4 options. -O follows any and all options

Examples:

300PSIXP2I 300 PSI standard gauge.

10KPSIXP2I-F4 10000 PSI with flange mounting (Rear Port included, **do not add** "-RP").

30KKPAXP2I-DD-RP-O 30000 kPa w/Dual Line Display, rear port option, w/metric ranges, only, cleaned for oxygen service.

Accessories

AC Adapter Kit: P/N 2984 permits operation of the **XP²** from an AC supply of 90 - 264 VAC and 47 - 63Hz.

Plastic Carrying Case: P/N 3009, 35.6 cm (14") L x 27.9 cm (11") W x 8.3 cm (3 1/4") H with egg-shell foam interior.

6" Gauge Adapter Kit: P/N 2955, adapts the 4 1/2" Panel Mount (F4 option) to fit into a 6" gauge cutout.

8 1/2" Gauge Adapter Kit: P/N 2956, adapts the 4 1/2" Panel Mount (F4 option) to fit into an 8 1/2" gauge cutout.

Software

LabVIEW™ drivers: Control and communicate with **XP²** using National Instrument's LabVIEW!

WinXP2: XP2 Configuration Software. Disable unwanted pressure units, set default pressure units, water density and adjust calibration.

Specifications subject to change without notice.

Printed in U.S.A. 1/04

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is Our
BUSINESS™

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