

# **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 = -14.5 psig

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

All models indicate vacuum, but vacuum specification applies to 15 psi, 30 psi, 100 psi, and 300 psi models only.

Not recommended for continuous use below -14.5 psi. Refer to <u>XP2i-DP data sheet</u> 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

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

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

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.

# 4533.K XP2i psi Data Sheet

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### 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 83.8 (3.30) **SENSOR** (Ø 4.50) DIAPHRAGM SURFACE -19 (3/4") (0.93)WRENCH HEX 7/16-20 MP CPF PORT 43.0 (1.70)INTERNAL PRESSURIZED VOLUME: 295 mm<sup>3</sup> (0.02 in<sup>3</sup>) 18.0 (0.71) - 36.1 -(1.42) 1/4 INCH MNPT 1/4 INCH MBSP M20X1.5 **ADAPTER ADAPTER ADAPTER** 26.1 (1.03) 32.6 (1.30)

ADDITIONAL SENSOR LENGTH WITH OPTIONAL FITTING ADAPTERS

**XP2i** Pressure Gauge **psi** 



# **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 15KPSI is

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 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.

# **XP2i** Pressure Gauge **psi**

### 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 T4 or T3C.



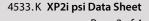
XP2i complies with the Electromagnetic Compatibility and the Pressure Equipment Directives. Refer to the EC Declaration of Conformity for specific details.



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 Norsike Veritas' Rules for Classification of Ships, High Speed & Light Craft and Offshore Standards.





# **RANGE & RESOLUTION TABLE**

D: 1 D 1
Display Resolution

P/N	Range (psi)	Over- pressure	psi	in H₂O	in Hg	mm Hg	mm H₂O	kg/cm²	bar	mbar	kPa	MPa
15PSI	15	6.5 x	0.001	0.01	0.001	0.01	1	0.0001	0.0001	0.1	0.01	0.00001
30PSI	30	3.0 x	0.001	0.01	0.001	0.1	1	0.0001	0.0001	0.1	0.01	0.00001
100PSI	100	2.0 x	0.01	0.1	0.01	0.1	1	0.0001	0.0001	0.1	0.01	0.00001
300PSI	300	2.0 x	0.01	0.1	0.01	1		0.001	0.001	1	0.1	0.0001
500PSI	500	2.0 x	0.01	1	0.1	1		0.001	0.001	1	0.1	0.0001
1KPSI	1000	2.0 x	0.1		0.1			0.001	0.001		0.1	0.0001
2KPSI	2000	2.0 x	0.1		0.1			0.01	0.01		1	0.001
3KPSI	3000	1.5 x	0.1		0.1			0.01	0.01		1	0.001
5KPSI	5000	1.5 x	0.1		1			0.01	0.01		1	0.001
10KPSI	10 000	1.5 x	1					0.01	0.01		1	0.001
15KPSI	15 000	1.3 x	1					0.01	0.01		1	0.001

System G pump system with a waterproof carrying case.

# 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 Pump(omit)				
	Optional:	Yes <b>DD</b>	G 1/4 B <b>BSP</b>	BackRP	Yes <b>DL</b>	NPT Kit (4013) <b>N</b>	System A (pneumatic) 0 to 30 psi	Full (omit)	Aluminum (omit)		
			M20x1.5 <b>M20</b>	Panel Mount <b>F4</b>		BSP Kit (4015) <b>B</b>	System A (pneumatic) 0 to 580 psi	DrainedE	WaterproofW		
	System B (pneumatic) -25 inHg to 30 psiBXX										
SAMPLE PA	ART NUMBE	RS					System B (pneumatic) -25 inHg to 580 psiBHX	* All fittings are rated to 10 000 psi, with the exception of the MPF-1/2QTF rated to 5000 psi.			
300PSIXP2	I		300 psi standard g	auge, with a 1/4" NPT	pressure fitting.		System C (oil) 0 to 3000 psiCXX				
5KPSIXP2I	-BSP-DL		5000 psi gauge, wi	th a 1/4" BSP pressure	e fitting and Data-l	ogging.	System C (oil) 0 to 5000 psiCHX	** Refer to the following page for a more detailed description (			
10KPSIXP2i-DD-N-GWX-E-W 10 000 psi Dual Display gauge with an NPT CPF fitting kit; a System G							System D (oil) 0 to 5000 psi	each Pump System.			
			pump system; no l	iquid; and a waterpro	System D (water) 0 to 5000 psi	The Waterproof Case is <i>the only option</i> for Systems G and H					
			Note: The 15KPSI go	uge is available only w	System E (oil) 0 to 10 000 psiEOX						
							System F (oil) 0 to 15 000 psiFOV				
Ordering a					System F (water) 0 to 15 000 psiFWV	V					
	•	_	_	for an XP2i pressure	System G (oil) 0 to 15 000 psiGOX						
	5 5	e. Enter XP21	-INUINE followed b	by the Pump System	System G (water) 0 to 15 000 psiGWX	WX					
Case option code.							System H (oil/pneumatic) -25 inHg to 580 psi and 0 to 5000 psi HOX	HOX			



# 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.
- 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.
- 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.
- 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.

# 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.



600 Seri



P-018-C



P01



T-1-C



GaugeCalHP

# XP2i Pressure Gauge psi

### 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

Autoclave Engineers Fluid Components is a division of Snap-tite, Inc. HiP is High Pressure Equipment Company.

Viton is a registered trademark of DuPont Performance Elastomers.

Contact:
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