



ACCURACY – 3 YEAR RECOMMENDED CALIBRATION INTERVAL

0 to 20% of Range: $\pm(0.05\%$ of Full Scale)
20% to 110% of Range: $\pm(0.25\%$ of Reading)
Vacuum: $\pm(0.5\%$ of Full Scale*)
* Full Scale = -14.5 psig / -1 bar / -0.1 MPa

Includes all effects of linearity, hysteresis, repeatability, temperature, and stability for three years.

All models indicate vacuum, but vacuum specification applies to 300 psi / 20 bar / 2 MPa models only.

Not recommended for continuous use below -14.5 psi. 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 digits, 16.8 mm (0.66") high**
Display Rate: **4 readings/second**

LCD readable in sunlight with bright backlight.

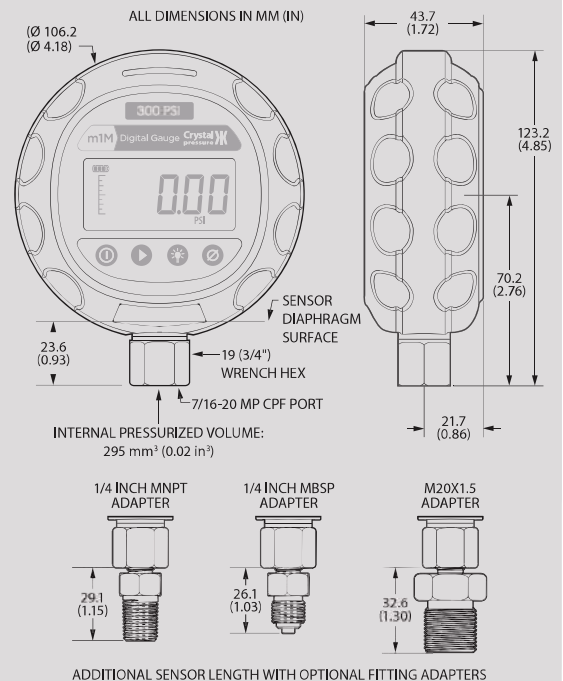
POWER

2 x AA: **900 hours, typical**

Extended Battery Life: **1 reading/15 seconds: 3,000 hours**
1 reading/30 seconds: 6,000 hours
1 reading/60 seconds: 10,000 hours
1 reading/5 minutes: 25,000 hours
1 reading/10 minutes: 30,000 hours

Uses 2 alkaline AA (LR6) batteries. Use of backlight reduces operating time. Extended battery life is keypad selectable. Do not overtighten rear cover when replacing batteries.

m1M Pressure Gauge





ENCLOSURE

Weight: 331 g (11.7 oz)	<i>Weight includes batteries and protective boot.</i>
Rating: IP65	<i>Water resistant housing incorporating o-ring seals [IEC 60529].</i>
Housing: Polyester/Polycarbonate Blend	<i>LCD protected from impact damage by polycarbonate lens under polyester window.</i>
Keypad and Labels: UV Resistant Polyester	<i>Skydrol® compatible.</i>

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>1/4" medium pressure tube system compatible with HiP LM4 and LF4 Series, Autoclave Engr SF250CX Male and Female Series.</i>
Connection: Crystal CPF * Female	<i>1/4" male NPT adapter included unless BSP or M20 is specified.</i>
	<i>* U.S. Patent No. 8,794,677</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

Averaging: Smooths unsteady readings (2 to 20 samples)
Vertical Bar Graph: Percent pressure indication for quick reference
Capture: Minimum (LO) and Maximum (HI)

m1M Pressure Gauge

CERTIFICATIONS



m1M complies with the Electromagnetic Compatibility and Pressure Equipment Directives. Refer to the EC Declaration of Conformity for specific details.



m1M is approved for use as a portable test instrument for Marine use and complies with Det Norske Veritas' Rules for Classification of Ships, High Speed & Light Craft, and Offshore Standards.

Notes: The m1M is specified to support a 3 year recommended calibration interval.

Every m1M comes with an ISO 17025 calibration report-NIST-traceable, A2LA accredited (certificate # 2601.01), internationally recognized by ILAC - with test data at 5 temperatures, proving our gauges meet specifications throughout their full temperature range.

Crystal products include a factory calibration report that proves it meets its specifications over the operating temperature range. The products described herein, are calibrated in Crystal's accredited Calibration Lab (A2LA, Certificate #2601.01 ISO/IEC 17025) in an environmental chamber using fully automated equipment. Inclusion of the ILAC-MRA symbol does not imply certification or approval of the product itself, but rather refers to Crystal's accreditation as a calibration facility.

RANGE & RESOLUTION TABLE

P/N	Range	Overpressure	Display Resolution							
			psi	in Hg	mm Hg	kg/cm ²	bar	mbar	kPa	MPa
300PSI	300 psi	2.0 x	0.01	0.1	1	0.001	0.001	1	0.1	0.0001
20BAR	20 bar	2.0 x	0.01	0.1	1	0.001	0.001	1	0.1	0.0001
2MPa	2 MPa	2.0 x					0.001	1	0.1	0.0001
3KPSI	3000 psi	1.5 x	0.1	1		0.01	0.01		1	0.001
200BAR	200 bar	1.5 x	0.1	1		0.01	0.01		1	0.001
20MPa	20 MPa	1.5 x					0.01		1	0.001

Refer to the complementary products section on page 4, for additional ranges and accuracies.

ORDERING INFORMATION

Model	P/N	Adapter Type	Pump System*
M1M			
Standard:	NPT	(omit)	No Pump. (omit)
Optional:	G 1/4 B	-BSP	System B (pneumatic) Maritime Kit — 25 inHg to 580 psi -BHM
	M20x1.5	-M20	System B (pneumatic) — 25 inHg to 580 psi -BHX
			System C (oil) Maritime Kit — 0 to 3000 psi -CXM
			System C (oil) 0 to 3000 psi -CXX

* Refer to the following page for a more detailed description of each Pump System.
Systems C are delivered without fluid.

SAMPLE PART NUMBERS

M1M-300PSI 300 psi gauge, with a 1/4" NPT pressure fitting.
M1M-200BAR-BSP 200 bar gauge, with a 1/4" BSP pressure fitting.
M1M-3KPSI-CXM 3000 psi gauge with a 1/4" NPT fitting; a System C maritime pump system; and carrying case.

► Ordering a Pump System Only

Any pump system, including the carrying case and connection fittings, may be ordered separately from the gauge. Enter M1M-NONE followed by the Pump System part number.

SAMPLE PART NUMBER

M1M-NONE-BHM System B maritime pump system with a rugged carrying case.

PUMP SYSTEMS

► Systems B... T-975 Pump (-0.91 to 40 bar/-27 in Hg to 580 psi)

BHM Maritime System: Coiled Hose with 1/4" NPT F connection, adapter to 1/4" BSP F, M1M connection fitting, bonded seals, o-ring kit, and rugged carrying case.

BHX Quick Test CPF System: CPF hose with 1/4" NPT F and 1/4" BSP F adapters, M1M connection fitting, bonded seals, o-ring kit, and a rugged carrying case.

► Systems C... T-620 Pump (200 bar/3000 psi)

CXM Maritime System: Standard hose with 1/4" NPT F connection, adapter to 1/4" BSP F, M1M connection fitting, bonded seals, o-ring kit, and rugged carrying case.

CXX Quick Test CPF System: CPF hose with 1/4" NPT F and 1/4" BSP F adapters, M1M connection fitting, bonded seals, o-ring kit, and a rugged carrying case..



m1M Pressure Gauge

ACCESSORIES

Protective Boot P/N 3436 (included)

Protect your m1M from harsh environments with our form fitting chemical resistant thermoplastic boot (Skydrol fluid compatible).

NPT Hose and Fitting Kit P/N 4016

Includes: 1/8 NPT [Male (2), Male 90°, Male Quick Test, and Female Quick Test], 1/4 NPT [Male (2), Female, Male Quick Test, and Female Quick Test], 1/2 NPT [Female Quick Test], Tube [1/4 Male, 3/8 Male, and 1/2 Male], AN4 Male, Transmitter [1/4 Male and 5/16 Male], CPF Connectors [Male-Male, T-Union, Plug, and Cap (2)], Hose [1 meter], and Custom Carrying Case.

BSP Hose and Fitting Kit P/N 4017

Includes: BSP Female [1/8, 1/4 (2), 3/8, and 1/2], NPT [1/4 Quick Test Female and 1/8 Male (2)], Transmitter [1/4 Male and 5/16 Male], CPF Connectors [Male-Male, T-Union, Plug, and Cap (2)], Hose [1 meter], and Custom Carrying Case.

COMPLEMENTARY PRODUCTS

AMETEK offers a wide range of DNV certified products for the maritime industry:

- [Fittings that connect without tools, safely and without leaks](#)
- [Lightweight, super flexible high pressure hoses](#)
- [Portable temperature calibrators](#)
- [Intrinsically Safe Digital Test Gauges](#)
- [Intrinsically Safe Reference Recorders](#)
- [Multi-Function Calibrators](#)