Type PM
Digital Pressure Indicator

FEATURES

Heise Pressure Master (PM) digital indicators combine the latest in microprocessor and pressure sensor technology to provide an unmatched combination of available ranges, reliability, functionality, performance and ease of use. PM indicators are ideal for use in test stands, as in-field calibration and test standards and for general metrology lab activity.

This all new digital indicator is available in ranges from 0.25 inches of water through 10,000 psi. There are 53 standard pressure ranges available. With the availability of gauge, absolute, compound and differential pressure types, as well as vacuum, and the availability of many ranges in both isolated and non-isolated configurations, 115 sensor configurations are available. Each of these sensor configurations is available in either of two standard levels of accuracy. All the ranges listed in the accompanying psi and inches of water range tables are available in accuracies of ±0.05%, (±0.06 or 0.07% for inches of water ranges) and ±0.1% of span. And, if all this capability isn't enough, a single PM instrument can display measurement data from one or, optionally, two installed pressure or temperature sensing modules, simultaneously.

SPECIFICATIONS

Accuracy: PM 500: ±0.05% of span psi ranges
±0.06% ranges below 1″ H_2O
±0.07% range from 1″ to 200″ H_2O
PM 1000: ±0.1% of span

Optional Special Calibration: Eliminates temperature error from 20° to 120°F.

Calibration: (Traceable to N.I.S.T.)
Recalibration: Complete recalibration can be accomplished over instrument RS232 interface. Zero and span can be accomplished via front panel keypad.

Resolution: ±0.002% of span (max)

Repeatability: (typical)
±0.01% of span (all psi ranges)
±0.01% of span, (ranges of 1″ through 200″ H_2O)
±0.02% of span, (ranges below 1″ H_2O)
Pressure Types: gauge (sealed gauge over 300 psi), absolute, compound, differential and vacuum (as noted in range chart)

Operating Temperature Range: Standard: 32° to 120°F; Optional: –4 to 120°F

Temperature Effect (zero & span): ±0.004% per degree F from a reference temperature of 70 ±3 degrees F

Operating Temperature Range: 32-120° F (0 to +49°C)

Temperature Compensation Range: 20-120° F (–7 to +49°C)

Storage Temperature: –4 to +158° F (–20 to +70°C)

Warm up: 5 minutes to rated accuracy; 30 minutes to complete stability

Standard: Inches of water ranges and psi ranges of 5 to 300 psi: clean, dry non-conductive and non-corrosive gases. Ranges above 300 psi: liquids and gases compatible with 316 SS.

Optional: 316 SS isolation available for ranges from 10-300 psi.

Overpressure:
Inches of H_2O ranges
50 psi positive, 15 psi negative psi ranges
200% for ranges of 5 through 1000 psi
150% for ranges of 1500 psi and above

The front panel keypad provides access to the following standard features:

- Push button zero adjust
- Engineering unit select (12 standard)
- Push button tare function
- Push button max/min memory recall
- Pressure/temperature port select (left, right, both)
- Port addition, subtraction (for DP calculation)
- Selectable dampeneing of input pressure
- Serial output – port configuration
- Display hold
- Push button print

Display: Liquid crystal

Display Size: 2 line, 0.38 inch height per line, 16 alpha or
numeric characters/line (max)

Display Update: 100 ms

Pressure Connection: ⅛ NPT internal

Dimensions: 7.72″ x 6″ x 2.95″ (l x w x h)

Panel Cutout: 5.4″ x 2.68″ (w x h)

Weight: Will vary based on sensor type and number of sensors installed. Total weight less than 4 lbs with 2 sensors & battery option.

Case Material: High Impact ABS, black

Power Requirements:
Standard: ac adapter provided for operation off standard 110 Vac, 60 Hz supply

Optional: Built-in rechargeable NiCad power pack (consult factory for availability of alkaline battery power pack).

Battery Life: 25 hours (nominal) without back-lighting of LCD. 5 hours (nominal) with continuous back lighting of LCD. Activation of RS232 interface will result in approximately a 30% reduction in battery life.

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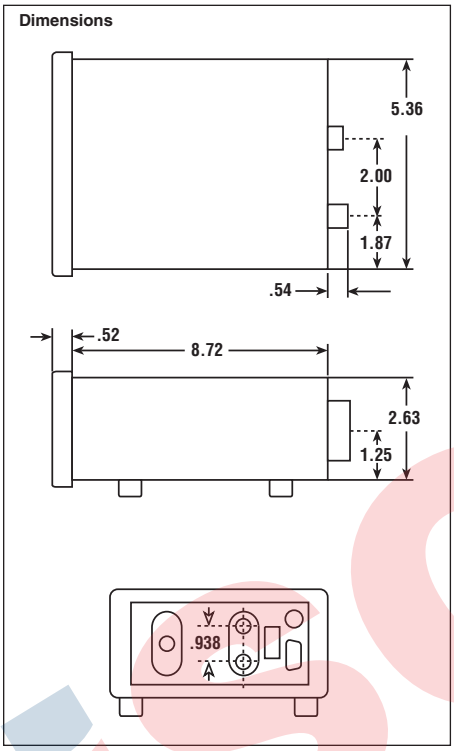
Dimensions



HEISE PPM1: LOW PRESSURE SENSORS

Gauge & Differential Pressure

Inches Water	mBar	kPa	mm Mercury	mm Water	cm Water
0.25*	0.6*	0.20*	0.5*	6*	0.6*
0.5*	1.0*	0.50*	1.0*	15*	1.5*
1.0*	2.5*		2.0*	30*	3*
2.0	4	1.0	3	50	5
3.0	6	2.5	5	60	6
5.0	10	4	10	150	15
10	25	6	20	300	30
15	40	10	30	600	60
25	60	25	50	1500	150
50	100	40	100	2000	200
100	250	60	200	5000	500
200	600				

Compound

Inches Water	mBar	kPa	mm Mercury	mm Water	cm Water
±0.125*	±0.25*	±0.1*	±0.2*	±3*	±0.3*
±0.25*	±0.6*	±0.25*	±0.5*	±6*	±0.6*
±0.5*	±1.0*		±1.0*	±15*	±1.5*
	±2.5*		±2*	±30*	±3*
±1.0	±4	±0.4	±3	±50	±5
±1.5	±6	±0.6	±5	±60	±6
±2.5	±10	±1.0	±10	±150	±15
±5.0	±16	±1.6	±15	±200	±20
±7.5	±25	±2.5	±20	±300	±30
±12.5	±60	±6	±50	±600	±60
±25	±100	±10	±100	±1500	±150
±50	±160	±16	±150	±2000	±200
±75	±250	±25	±200	±3000	±300
±100					

*Accuracy limited to +0.07% of span.
Inlet Fitting: ⅛ NPT internal thread.

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