

## Precision Pressure Instrument Quick Guide

As the industry leader in *technology driven precision instrumentation*, the Heise® name has long been synonymous with high accuracy, quality and reliability.

Heise® precision products offer practical, state-of-the-art features specifically designed to meet the demands of today's customers. Innovations such as modular sensor design and digital output transducer technology continue to make Heise® the preferred instrument for critical pressure measurement applications.

Behind every Heise® product is a modern manufacturing facility certified to ISO 9001 with NIST traceable standards maintained in accordance with MIL-STD-45662A and ANSI/NCSL Z-540. In addition, a knowledgeable technical support staff is available to assist you, both before and after your purchase.

The following guide provides a simple overview of the Heise® product line. Visit our website at [www.heise.com](http://www.heise.com) for detailed product information.

LOOK FOR THESE MARKS ON OUR PRODUCTS





Model CC 300° dial arc

## PRECISION ANALOG PRESSURE TEST GAUGES



Model CM 350° dial arc



Model CMM 660° dial arc

### PRESSURE MEASUREMENT ACCURACY

±0.1% of span  
 Model CC 300° dial arc  
 Model CM 350° dial arc  
 Model CMM 660° dial arc

### PRESSURE RANGES

0-12 psi to 0-100,000 psi

### FEATURES

- Single and dual revolution gauges
- Solid front aluminum case with stainless steel pressure relief back for operator safety
- Dial sizes available in 6", 8½", 12" and 16"

### OPTIONS

- Custom scales and ranges
- Peak load indication
- Automatic thermal compensation
- Slotted movement link



## PRECISION DIGITAL PRESSURE TEST GAUGE

### PRESSURE MEASUREMENT ACCURACY

3089 – ±0.05%;  
 3086 – ±0.10%  
 3084 – ±0.25%  
 Total Error Band from 0° to 150°F

### PRESSURE RANGES

0-5 psi to 0-7000 psi

### PRESSURE TYPES

Gauge, compound, vacuum, absolute

### FEATURES

- Dial size: 3"
- Display size: 0.66", 5 full digit
- Simple keypad layout,
- Push to zero, Min/Max
- Bar graph display, Multi-lingual display, 12 Engineering units
- Programmable damping
- Adjustable display contrast
- 100mS update rate
- Password protection

### APPROVALS

FM, CE

### OPTIONS

- Panel mount,
- Carrying case,
- O<sub>2</sub> service cleaning,
- Non-standard ranges, consult factory



## DXD DIGITAL PRESSURE TRANSDUCER

### PRESSURE MEASUREMENT ACCURACY

±0.02% of span, including temperature effects within 50-86°F

### PRESSURE RANGES

0-5 psi to 0-10,000 psi\*

### PRESSURE TYPES

Gauge, vacuum, absolute and compound

### OUTPUT

RS485 or RS 232

### RESOLUTION

Up to one part in 50,000 (max.)

### UPDATE RATE

Up to 15mS

### POWER REQUIREMENTS

12 to 24 Vdc, 15mA maximum

### FEATURES

- LabVIEW® powered operating software available
- Up to 99 transducers on single RS232 line
- 300 Series stainless steel wetted materials and housing
- Simple ASCII command structure
- Selectable baud rate
- Selectable port speeds up to 115.2k bps
- User zero and span

\*10,000 psi: 0.1% accuracy



## HPO SERIES PRECISION PRESSURE TRANSDUCER

### PRESSURE MEASUREMENT ACCURACY

±0.05% of span

### PRESSURE RANGES

5 psi to 10,000 psi

### PRESSURE TYPES

Gauge, compound, vacuum, absolute

### OUTPUTS

0/5 Vdc, 0/10 Vdc, -5/+5 Vdc and 4-20mA high-level output signals

### WETTED MATERIALS

Inconel 718 & 300 series stainless steel. All-welded construction

### REPEATABILITY

±0.005% fs

### TEMPERATURE COMPENSATION

20-120°F

Response time of 3 ms

Externally accessible zero and span adjustments

3-foot pigtail electrical connector

### OPTIONS

- Bendix PTO connector
- NEMA 4X sealed housing
- Atmospheric reference port
- Pipe or wall mounting bracket

# HEISE Precision Pressure Instruments



## PTE-1 MODULAR HANDHELD CALIBRATOR

### PRESSURE MEASUREMENT ACCURACY\*

±0.025, 0.05 and 0.1% of span

### PRESSURE RANGES

0/0.25" H<sub>2</sub>O through 0/10,000 psi

### PRESSURE TYPES

Gauge, compound, vacuum,  
absolute and differential

### TEMPERATURE COMPENSATION

20-120°F

### TEMPERATURE MEASUREMENT

Supports most common  
RTD-type temperature probes  
and thermocouples

### STANDARD FEATURES

- Interchangeable Quick-Select™ modules for pressure and temp.
- Simultaneous dual-range measurement capability
- Measures:
  - Current and voltage
  - Temperature & pressure
  - Airflow (velocity and volume)
  - Leak (rate and decay)
  - Trip, reset and deadband of pressure switches
  - Min/max recall
  - Tare function
  - Unit select
  - Display hold
  - % error mode
  - Programmable damping easily recalibrated in the field

### PHYSICAL CHARACTERISTICS

Power: 9 Vdc batteries (2) or ac adapter  
Battery Life: 30 hours  
Weight: Base Unit: 2.2 lb; Sensors: 0.5 lb

### OPTIONS

- Data logging and high/low relays
- Extended temperature operation
- FM approval for Class 1, Div. 1, Groups A, B, C & D hazardous areas
- EMI/RFI immunity rating
- Carrying cases

\*Consult specifications sheet for detailed accuracy information

Resolution 1 part in 60,000



## ST-2H MODULAR INDICATOR SYSTEM

### PRESSURE MEASUREMENT ACCURACY\*

±0.025, 0.05 and 0.1% of span

### PRESSURE RANGES

0/0.25" H<sub>2</sub>O through 0/10,000 psi

### PRESSURE TYPES

Gauge, compound, vacuum,  
absolute and differential

### TEMPERATURE COMPENSATION

20-120°F

### TEMPERATURE MEASUREMENT

Supports most common  
RTD-type temperature probes  
and thermocouples

### STANDARD FEATURES

- Interchangeable Quick-Select™ modules for pressure and temp.
- Simultaneous dual-range measurement capability
- Measures:
  - Current and voltage
  - Temperature & pressure
  - Airflow (velocity and volume)
  - Leak (rate and decay)
  - Trip, reset and deadband of pressure switches
  - Min/max recall
  - Tare function
  - Unit select
  - Display hold
  - % error mode
  - Programmable damping easily recalibrated in the field

### PHYSICAL CHARACTERISTICS

Power: ac adapter, 110V/60Hz std.  
Dimensions: 9.24" x 6.74" x 4.0" (L x W x H)  
Case: High impact ABS, black  
Weight: Base Unit: 3.0 lb;  
Sensors: 0.5 lb

### OPTIONS

- Data logging and high/low relays
- Backlit display
- Built-in rechargeable power pack
- Built-in 24 Vdc supply
- Carrying handle

\*Consult specifications sheet for detailed accuracy information

Resolution 1 part in 60,000



## PM DIGITAL PRESSURE & TEMPERATURE INDICATOR

### PRESSURE MEASUREMENT ACCURACY\*

±0.025, 0.05 and 0.1% of span

### PRESSURE RANGES

0/0.25" H<sub>2</sub>O through 0/10,000 psi

### PRESSURE TYPES

Gauge, compound, vacuum,  
absolute and differential

### TEMPERATURE MEASUREMENT

Supports most common  
RTD-type temperature probes

### RESOLUTION

1 part in 60,000 (max.)

### TEMPERATURE COMPENSATION

20-120°F

### PHYSICAL CHARACTERISTICS

Weight: less than 4 lbs with 2 sensors installed  
Dimensions:  
7.72" x 6.0" x 2.95" (L x W x H)  
Case: High impact ABS, black

### STANDARD FEATURES

- Simultaneous display of 2 pressure sensors, 1 pressure and 1 temperature or 2 temperature sensors.
- 12 engineering units
- Min/max recall
- Tare
- Programmable damping
- Full function RS232
- Display hold
- Push to print

### OPTIONS

- Second installed pressure sensor
- Built-in rechargeable power pack
- Display backlighting
- Panel mounting brackets
- Carrying handle

\*Consult specifications sheet for detailed accuracy information



## SERIES 9 DIGITAL PRESSURE INDICATOR

### PRESSURE MEASUREMENT ACCURACY\*

±0.035 and 0.07% of span

### PRESSURE RANGES

50 in. H<sub>2</sub>O to 30,000 psi

### PRESSURE TYPES

Gauge, compound, vacuum,  
absolute

### REPEATABILITY

±0.005% (min)

### TEMPERATURE COMPENSATION

45-95°F (optional)  
20-120°F (optional)

### WETTED MATERIALS

Inconel 718 & 300 series stainless steel all-welded construction

### PHYSICAL CHARACTERISTICS

Power: 110 VAC, 60 Hz  
Weight: 2.8 lb  
Dimensions: 7.7" x 6.0" x 3.0" (L x W x H)  
Case: High impact ABS, black

### OPTIONS

- Max/min function
- Tare function
- Temp. comp. range of 20-120°F
- Analog and digital output signals
- Unit select
- Hi/Lo setpoint relays
- Carrying handle
- Panel mounting brackets
- RTS remote sensor option



**HVC VOLUMETRIC  
PRESSURE CONTROLLER**

**CONTROL RESOLUTION**

0.00025 psi for HVC-1000

0.0005 psi for HVC-3000

Generates moderate levels of positive pressure and vacuum

Sets pressure up to 1000 or 3000 psi

Extremely fine control of both pressure and vacuum

Built-in pressure balance valve for ease of operation

Panel or bench mountable

**OPTIONS**

- Bench mounting bracket



**HAND OPERATED PRESSURE  
AND VACUUM PUMPS**

**LTP1** Pneumatic pressure/vacuum pump generates to 24 in.Hg to 30psi

*Features extremely fine control for low pressures*

**TP1-40** Pneumatic pressure/vacuum pump generates 29 in.Hg to 365 (normal use) 600 psi (maximum effort)

**HTP1** Hydraulic pressure pump generates up to 10,000 psi



**DPOV-VK** Vacuum pump generates up to -23 in.Hg

**DPOV-PK** Pneumatic pressure pump generates up to 100 psi

**APOV-PK** Pneumatic pressure pump generates up to 300 psi