

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 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,
- O₂ 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" H₂O 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" H₂O 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" H₂O 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. H₂O 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