



## GENERAL INFORMATION

### SPECIFICATIONS

These specifications are referred to an attached volume of 2.0 cubic inches (33 ml) and an ambient temperature of  $77^{\circ}\text{F} \pm 2^{\circ}\text{F}$  ( $25^{\circ}\text{C} \pm 1^{\circ}\text{C}$ ). Both the pneumatic and electrical functions of Models 1292 and 1294 have been characterized over the entire temperature range to minimize temperature effects.

### PRESSURE

**Input or Output Pressure Range:**

-5 to 100 psig (-35 to 690 kPa)

The pressure sensor in use is dependent on the pressure range defined by the user's mode of operation. The Model 1292/1294 will utilize one of the following three sensor ranges to optimize instrument accuracy for the selected range/value:

-5 to 5 psig	(-35 to 35 kPa)
0 to 30 psig	(0 to 207 kPa)
0 to 100 psig	(0 to 690 kPa)

In addition, the Model 1294 can operate with higher input pressures with the addition of an externally mounted pressure sensor.

0 to 2500 psig (0 to 17250 kPa)

**Maximum Pressure (input direct to instrument input port, or output):**

100 psi (690 kPa)

**Time to Pressure:**

<5 psig:	8 seconds maximum
30 psig:	15 seconds maximum
100 psig:	100 seconds typical

**Pressure Accuracy:**

-5 to 5 psig range:	0.03% of Reading $\pm 0.0005$ psi (10 – 40°C)
0 to 30 psig range:	0.03% of Reading $\pm 0.003$ psi (0 – 40°C)
0 to 100 psig range:	0.03% of Reading $\pm 0.009$ psi (0 – 40°C)
0 to 2500 psig range:	0.03% of Reading $\pm 0.25$ psi (0 – 40°C)

Ambient Reference Temperature for calibration 23°C  $\pm 1^\circ\text{C}$  (73°F)  $\pm 2^\circ\text{F}$

**Resolution:**

0.005% of full scale value of sensor in use (resolution may be reduced or increased by user). See Chapter 3, Diagnostics, page 18.

**Overpressure Protection:**

Models 1292 and 1294 are standard with no pressure reliefs. However, overpressure protection is an available option as a self-sealing pressure relief system. Overpressure relief occurs at approximately these pressures, listed for each input sensor range:

5 psig sensor	relief at 8 psig
30 psig sensor	relief at 39.5 psig
100 psig sensor	relief at 117 psig

**Pressure Connections:**

**Internal Sensors** – Female 1/8" flow Colder Products Corporation (CPC) fittings  
- NPT adapter fittings supplied.

**External Sensor** – 1/4" Female.

**Filtration:**

Common port filter

**Media Compatibility:**

**Internal Sensors** – vaporous materials compatible with aluminum, stainless steel and buna N.

**External Sensors** – materials compatible with 316SS and fluorocarbon rubber.

**Unswep Internal Volume:**

Less than 1.0 cubic inch (18 ml)

## ELECTRICAL

**Input Ranges:**

Current:  $\pm 50.000$  mA

Voltage:  $\pm 99.999$  V

Millivolt:  $\pm 99.99$  mV

**Input/Output Calibrated Accuracy (at reference temperature of  $25^{\circ}\text{C} \pm 1^{\circ}\text{C}$  [ $77^{\circ}\text{F} \pm 2^{\circ}\text{F}$ ):**

Current:  $\pm 0.01\%$  of reading  $\pm 0.01\%$  FS (Input)

$\pm 0.01\%$  of reading  $\pm 0.02\%$  FS (Output)

Voltage:  $\pm 0.01\%$  of reading  $\pm 0.02\%$  FS (Input/Output)

Millivolt:  $\pm 0.01\%$  of reading  $\pm 0.02\%$  FS (Input/Output)

**Input Calibrated Accuracy  $32^{\circ}\text{F} - 104^{\circ}\text{F}$  ( $0^{\circ}\text{C} - 40^{\circ}\text{C}$ ):**

Current:  $\pm 0.03\%$  of reading  $\pm 0.02\%$  FS

Voltage:  $\pm 0.03\%$  of reading  $\pm 0.02\%$  FS

Millivolt:  $\pm 0.03\%$  of reading  $\pm 0.02\%$  FS

**Input Impedance:**

Current: 10 ohms nominal

Voltage: 10 megohms nominal

Millivolt: 10 megohms nominal

**Output Ranges:**

Current: 0 to 22.0000 mA

Voltage: 0 to 11.0000 V

Millivolt: 0 to 110.000 mV

**Output Calibrated Accuracy  $32^{\circ}\text{F} - 104^{\circ}\text{F}$  ( $0^{\circ}\text{C} - 40^{\circ}\text{C}$ ):**

Current:  $\pm 0.03\%$  of reading  $\pm 0.02\%$  FS

Voltage:  $\pm 0.03\%$  of reading  $\pm 0.02\%$  FS

Millivolt:  $\pm 0.03\%$  of reading  $\pm 0.02\%$  FS

**Output Impedance:**

Current Range: 50 megohms, min.

Voltage and Millivolt Ranges: 1 ohm, max.

**Maximum Common Mode Voltage:**

200 V peak to peak

**Normal Mode Rejection:**

80 dB @ 60 Hz

**Input Protection:**

Solid state limit and mA input fuse protected (0.125 A)

**Maximum Current Loop Resistance:**

1K ohm @ 20 mA

**Voltage Output Drive Capability:**

2K Ohm, 5 mA

**Output Protection:**

Protected against output short circuit

**Isolation (Input-to-Output-to-Case):**

200 V maximum

**Power:**

Rechargeable 12V sealed lead acid battery

**Charge Life:**

12 hours in typical calibration use

**Display:**

240 x 64 dot matrix graphics LCD; 8 lines x 40 characters (alphanumeric); with back lighting feature

**Input/Output Connections:**

Miniature banana jacks; DB9 serial port (for data and handshake)

## GENERAL

**Housing:**

Black ABS (UL 94 V-O)

**Dimensions (HWD):**

92" x 102" x 142" (230 mm x 260 mm x 360 mm)