

FEATURES

- *High accuracy*
 - Pressure - 0.05% of full scale \pm 1 LSD
 - Electrical - 0.025% of full scale \pm 1 LSD
- *Temperature compensation*
 - Provides for high accuracy pressure measurements over an operating temperature range of 0°-500°C.
- *Versatility*
 - Pressure ranges from 2 to 1000 psig
 - 316SS and differential sensor versions available.
- *Communications*
 - Download information via RS-232 data port to either a computer or printer.
- *Robust design*
 - "Anti-shock" urethane enclosure protector
- *Safety*
 - Intrinsically safe for use in Class 1, Division 1, Group A, B, C and D areas.
 - CE mark attained.
- *Connectivity*
 - Designed to interface with both voltage and current output transmitters.
- *AC/DC adaptor circuitry*
 - Allows the unit to operate with either alkaline or re-chargeable Ni-Cad batteries.



DESCRIPTION

The Star Pressure Calibrator leads the all new line-up of rugged, portable digital pressure calibrators from 3D Instruments. This multi-functional instrument incorporates state-of-the-art digital pressure and electrical measurement technologies.

The signal output from the integral pressure sensor is supplied to a 16 bit microprocessor for processing, filtering and control. This circuitry design provides for high accuracy of 0.05% full scale for pressure over the entire operating temperature range 0°-50°C. Pressure sensors can be supplied from 2- 1 000 psig.

For your high pressure and corrosive media applications, 316SS isolated pressure sensors are available.

The Star Pressure Calibrator is housed in a water resistant ABS case enveloped by a shock-resistant urethane enclosure protector. All controls including power, zero and engineering unit selection are made via a membrane keypad for reliable operation in the most adverse weather conditions. This unit is designed to comply with NEMA 4X or IP66 requirements.

The combination of high accuracy measurement technologies, robust design and a wide array of pressure ranges makes the Star Pressure Calibrator System the ideal choice to tackle your demanding pressure and electrical monitoring, test and calibration applications.



Standard Product Kit



Accessories

SPECIFICATIONS

Accuracy

Pressure: 0.05% FS ± 1 LSD
 Includes all variations due to:

- temperature
- hysteresis
- non-linearity and repeatability

Electrical: 0.025% FS ± 1 LSD
 Environmental effects:

- Pressure: none over the operating temperature
- Electrical: 0.002% of full scale/°C outside 23 ± 3° C

Environmental

Operating temperature range: 0-50° C
Storage temperature range: -10-55° C

Pressure Sensors

<u>Psig - Isolated</u>			
<u>Range</u>	<u>Code</u>	<u>Range</u>	<u>Code</u>
0-15	15	0-250	46
0-30	21	0-500	27
0-100	23	0-1000	29

Psig - Non-Isolated

<u>Range</u>	<u>Code</u>	<u>Range</u>	<u>Code</u>
0-2	91	0-30	94
0-5	92	0-100	95
0-15	93		

Psid - Non-Isolated

<u>Range</u>	<u>Code</u>	<u>Range</u>	<u>Code</u>
0-5	86	0-100	90
0-30	88		

Psia - Non-Isolated

<u>Range</u>	<u>Code</u>	<u>Range</u>	<u>Code</u>
0-15	72	0-100	75
0-30	73		

Media compatibility: *Non-isolated* - Non-corrosive gases or liquids; *Isolated* - Any media compatible with 316SS
Overpressure: Acceptable operating pressure ranges, without damage or shift in calibration, as follows:
Isolated - 2x full scale pressure
Non-isolated - 3x full scale or 200 psi max. (whichever is less); 20 psi for 2 and 5 psi sensors.

Engineering Units

Bar; Kg/cm²; Psi; mmHg; mHg; kPa; mPa; inH₂O-4°C; inH₂O-20°C; ftH₂O-4°C; ftH₂O-20°C; cmH₂O-4°C; cmH₂O-20°C; mH₂O-4°C; mH₂O-20°C
 (unit availability depends on sensor pressure range)

Electrical

Electrical ranges: 0- 10 Vdc/ 0-24mA
Battery: Alkaline (4-AA size) 25 hour life nominal @ 25° C.
Power saving: auto shut-off after approximately 20 minutes.

Physical

Connections: Pressure - 1/8" NPTF nickel plated brass; Electrical - Standard Banana Jack
Display: 2 line, 16 character alphanumeric
Housing: High density, ABS plastic
Dimensions: 8.4"L x 4.3"W x 2.3"D
Weight: Approximately 2.0 lbs.

ORDERING INFORMATION

Typical Part Number

50	5	0	X	-	X	D	0	0
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Series Number:	"50" = Star™ Calibrator
Sensor Type:	"5" = All Sensors
Accuracy:	"0" = ±.05% of span from 0° to 50°C
Power Requirement:	"0" = 4-AA Alkaline batteries only "1" = 110 VAC adaptor with 4 Ni-Cad batteries "2" = 220 VAC adaptor with 4 Ni-Cad batteries "3" = 12 VDC adaptor with 4 Ni-Cad batteries
Pressure Sensor Range:	Refer to pressure codes above.
Process Connection Fitting:	"D" = 1/8" NPTF

*Standard Part #Includes: Calibrator, boot, 2 test leads, 4-AA Alkaline batteries, soft nylon carrying case and NIST traceable calibration certificates.

AN ISO 9000



REGISTERED COMPANY

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