

Specification**Item: HART based Portable Pressure Calibrator.**

**General :** A precise multifunction HART based portable electronic multifunction calibrator covering pressure range from -0.82 bar to 20.50 bar Nominal Pressure with accredited calibration certificate as per ISO 17025 standard. The system shall have built in pressure sensors and internal pressure generators covering the specified range without employing additional pressure sensors and pressurizing devices and like Vacuum pumps, Hand Pumps etc. PC interface shall be provided using USB. The required Software compatible with MS windows also be part of supply. Hose set with connectors, adaptors, Interfacing cables, connectors, Chords and any other accessories required for the total utilization of the Calibrator shall also be a part of the supply.

**Major features are as follows**

- Built in Automatic Pressure Generation, Sensing & Regulation
- Facility to Measure, Source and Simulate 4 to 20 mA signals.
- Built in HART interface for working with HART Transmitters
- Leak detection for testing and verifying test setups
- 24VDC Loop power supply for testing and powering transmitters
- Automatic Internal fine- Pressure Adjustment
- EMC & RFI Compatibility shall be as per IEC 61326, CISPR 11: Group1, Class A

S No:	Parameters	Specification
1	Pressure Range	Pressure Range: -0.85 bar to 20.50bar bar
2	Pressure/ Vacuum Source	Through inbuilt compressor/ vacuum pump to generate vacuum/ pressure from -0.85 to 20.50 without using any additional source externally
3	Accuracy for Pressure Measurement.	± 0.02% of full scale for temperature between 15°C to 35°C
4	Resolution for pressure measurement	0.01mb
5	Pressure Control precision	± 0.005% Full scale to the set pressure
6	Stability	20 ppm of full Scale /°C
7	Pressure Units	10 or more selectable units such as mbar, bar, kg/cm <sup>2</sup> , psi, Pa, mmHg, inHg, mmH <sub>2</sub> O, inH <sub>2</sub> O
8	Application/ Features	To test <ul style="list-style-type: none"> <li>➤ Smart Pressure Transmitter</li> <li>➤ Pneumatic Pressure Transmitter</li> <li>➤ Pressure Switch</li> <li>➤ Current to Pressure</li> <li>➤ Leak Test</li> </ul>
9	Process connection	1/8" NPT (Female) with adaptors 1/8" to 1/4", 1/2" & 3/4" NPT (MOC: AISI SS316)

<b>ELECTRICAL SPECIFICATION</b>		
10	Current Simulation, Source and Measurement Range	0 to 24mA
11	mA Resolution	1 micro amps
12	Accuracy: mA simulation, source and Measurement.	0.01% ±2 LSD all range ( at 23°C ± 5°C)
13	Loop compliance voltage (Transmitter energization)	24VDC at 20mA
14	VDC measurement Range	0 to 30VDC
15	Temperature Resolution	1mV
16	VDC measurement accuracy	0.01% ±2 LSD all ranges ( at 23°C ±5°C)
17	Temperature measurement	Through external 100Ω Pt(385) RTD, RTD Connected to the port
18	Temperature Range	-50deg C to 150deg C
19	Temperature Resolution	0.01°C
20	Temperature measurement accuracy	±0.25°C
<b>GENERAL SPECIFICATION</b>		
21	Display	LCD Display with battery level indication and control stability indication
22	HART interface	Required
23	Logging function and memory capability	Shall be capable of recording a atleast 6000 readings
24	PC Connectivity	Through USB Port
25	Software	Necessary software to be provided for uploading results. Software should compatible with MS Windows.
26	Power Supply	Rechargeable Battery Pack ( Rechargeable Li-ion Battery) Charging from 230V AC 1No: of spare battery pack 1No: of additional adaptor
27	Safety (EMC Compatibility)	As per IEC 61326-1 CISPR 11 : Group 1, Class A
28	Provision to drain condensate	To be provided with a valve which can be used to drain condensate in the internal pressure line
29	Critical Features	<ul style="list-style-type: none"> <li>A. Automatic Pressure Generation and regulation to 20.50 Bar</li> <li>B. Automatic Internal Fine Pressure Adjustment and regulation</li> <li>C. Software compatible with MS windows for uploading test results</li> <li>D. Built in leak testing for verifying test setups for leakage</li> <li>E. HART Communication for testing smart transmitters with HART interface</li> <li>F. Measure Vdc for testing 1Vdc to 5Vdc output transmitters</li> <li>G. Portable design &amp; Rugged</li> </ul>

