



## Additel 672 Digital Pressure Calibrators

- Pressure ranges to 40,000 psi (2,800 bar)
- HART Communication capability
- Measure mA or V, and with 24V loop power
- Easy-to-use, inexpensive pressure calibrator with uncertainty better than 0.02%FS



Gauge pressure

Differential pressure

### OVERVIEW

At first glance, the 672 series precision pressure calibrators look like an ordinary pressure gauge. But this series is much more than ordinary, and definitely more than just a pressure gauge—it's a pressure calibrator! With advanced microprocessor technology and state-of-the-art silicon pressure sensors, the 672 series precision pressure calibrators provide a pressure calibration solution for gauges, transmitters, and switches over a wide pressure range. The 672 is the size of a pressure gauge but with the functionality of a calibrator: It measures pressure precisely with a built-in pressure sensor, as well as reads the current or mV produced by a transducer. It can even supply an excitation voltage to power sensors or transmitters during calibration. In order to reach 0.02%FS accuracy up to 10,000 psi (700 bar) and 0.1%FS accuracy up to 40,000 psi (2,800 bar), every silicon pressure sensor has been specially aged, tested, and screened before assembly. The 672 series precision pressure calibrators are unmatched in performance and reliability.

### FEATURES

- Pressure ranges to 40,000 psi (2800 bar)
- Measure mA with 0.01% RD + 1.5  $\mu$ A accuracy  
Measure V with 0.01% RD + 1.5 mV accuracy
- Power transmitters during test using 24V loop supply
- Pressure switch test
- HART Communication capability
- Advanced temperature compensation
- Dual readout
- Min/Max/Hold to capture changing measurements
- Data logging
- Large, easy to read display with 6-digit resolution
- Backlit display
- Rechargeable battery or AC adapter
- NIST traceable calibration with data (Included)

### SPECIFICATIONS

- **Accuracy**  
ADT672-02: 0.02% of full scale  
ADT672-05: 0.05% of full scale  
>20,000 (1,400 bar): 0.1% FS
- **Gauge Types**  
Gauge pressure  
Compound Pressure  
Absolute pressure  
Differential pressure
- **Display**  
Description: Dual-line 6 full digit FSTN LCD with LED Backlight  
Display rate: 3.5 readings per second (Default setting)  
Numeral display height: 16.5mm (0.65")
- **Pressure Units**  
Pa, kPa, MPa, psi, bar, mbar, inH<sub>2</sub>O@4°C, mmH<sub>2</sub>O@4°C, inHg@0°C, mmHg@0°C, kgf/cm<sup>2</sup>
- **Environmental**  
Compensated Temperature: 14°F to 122°F (-10°C to 50°C)  
Operating Temperature: 14°F to 122°F (-10°C to 50°C)  
Storage Temperature: -4°F to 158°F (-20°C to 70°C)  
Humidity: <95%

## SPECIFICATIONS

## ■ Pressure Ranges

Gauge Pressure <sup>[1]</sup>					
P/N	Pressure Range		Media <sup>[2]</sup>	Accuracy(%FS)	Burst Pressure
	(psi)	(bar)			
V15	-15	-1.0	G	0.02 (0.05)	3x
GP2	2	0.16	G	0.05	3x
GP5	5	0.35	G	0.05	3x
GP10	10	0.7	G	0.02 (0.05)	3x
GP15	15	1.0	G, L <sup>[3]</sup>	0.02 (0.05)	3x
GP30	30	2.0	G, L <sup>[3]</sup>	0.02 (0.05)	3x
GP50	50	3.5	G, L	0.02 (0.05)	3x
GP100	100	7.0	G, L	0.02 (0.05)	3x
GP300	300	20	G, L	0.02 (0.05)	3x
GP500	500	35	G, L	0.02 (0.05)	3x
GP600	600	40	G, L	0.02 (0.05)	3x
GP1K	1,000	70	G, L	0.02 (0.05)	3x
GP2K	2,000	140	G, L	0.02 (0.05)	3x
GP3K	3,000	200	G, L	0.02 (0.05)	3x
GP5K	5,000	350	G, L	0.02 (0.05)	3x
GP10K	10,000	700	G, L	0.02 (0.05)	3x
GP15K	15,000	1,000	G, L	0.05 (0.1)	2x
GP20K	20,000	1,400	G, L	0.05 (0.1)	1.5x
GP25K	25,000	1,600	G, L	0.1	1.5x
GP30K	30,000	2,000	G, L	0.1	1.5x
GP36K	36,000	2,500	G, L	0.1	1.5x
GP40K	40,000	2,800	G, L	0.1	1.1x

[1] Sealed gauge pressure for above 1000 psi

[2] G=Gas, L=Liquid

[3] 0.02% FS for gas media only

Compound Pressure					
P/N	Pressure Range		Media	Accuracy(%FS) <sup>[1]</sup>	Burst Pressure
	(psi)	(bar)			
CP2	±2	±0.16	G	0.05	3x
CP5	±5	±0.35	G	0.02 (0.05)	3x
CP10	±10	±0.7	G	0.02 (0.05)	3x
CP15	±15	±1	G	0.02 (0.05)	3x
CP30	-15 to 30	-1 to 2	G	0.02 (0.05)	3x
CP100	-15 to 100	-1 to 7	G, L	0.02 (0.05)	3x
CP300	-15 to 300	-1 to 20	G, L	0.02 (0.05)	3x

[1] FS specification applies to the span of the range

Absolute Pressure					
P/N	Pressure Range		Media	Accuracy(%FS)	Burst Pressure
	(psi)	(bar)			
AP5	5	0.35	G	0.1	3x
AP10	10	0.7	G	0.1	3x
AP15	15	1.0	G	0.1	3x
AP30	30	2.0	G	0.1	3x
AP50	50	3.5	G	0.1	3x
AP100	100	7.0	G, L	0.05 (0.1)	3x
AP300	300	20	G, L	0.05 (0.1)	3x
AP500	500	35	G, L	0.05 (0.1)	3x
AP1K	1,000	70	G, L	0.05 (0.1)	3x
AP3K	3,000	200	G, L	0.05 (0.1)	3x
AP5K	5,000	350	G, L	0.05 (0.1)	3x

Differential Pressure						
P/N	Pressure Range		Media	Accuracy (%FS) <sup>[1]</sup>	Burst Pressure	Static Pressure Range
	(inH <sub>2</sub> O)	(mbar)				
DP1	±1	±2.5	G	0.05 <sup>[2]</sup>	100x	±10 psi
DP2	±2	±5.0	G	0.05 <sup>[2]</sup>	100x	±10 psi
DP5	±5	±10	G	0.05 <sup>[2]</sup>	50x	±10 psi
DP10	±10	±25	G	0.05 <sup>[2]</sup>	20x	±10 psi
DP20	±20	±50	G	0.05	20x	±10 psi
DP30	±30	±75	G	0.05	20x	±10 psi
DP50	±50	±160	G	0.05	3x	±10 psi
DP150	±150	±350	G	0.02	3x	50 psi
DP300	±300	±700	G	0.02	3x	50 psi

[1] FS specification applies to the span of the range. Accuracy includes one year stability.

[2] 0.05%FS accuracy (incl 6 months stability). One year accuracy is 0.05%FS calibration accuracy combined with 0.05%FS one year stability.

Electrical Measurement Accuracy		
	Range	Accuracy
Voltage DC	±30.0000V	± (0.01%RD + 1.5 mV)
Current DC	±30.0000mA	± (0.01%RD + 1.5 µA)
DC 24V	24V±0.5V max:50mA Protect at: 120mA	
Switch <sup>[1]</sup>	Status OPEN/CLOSED	

[1] 1V~12V if switch has detective voltage



Additel 672

Digital Pressure Calibrators

SPECIFICATIONS

- **Pressure Connections**  
 1/4NPT male, 1/2NPT male, 1/4BSP male, 1/2BSP male, M20X1.5 male ( $\leq 15,000$  psi)  
 1/4HP female or 1/4HP male ( $>15,000$  psi)  
 1/4HP female: Autoclave F-250-C, 9/16" - 18 UNF-2B  
 1/4HP male: Autoclave M-250-C, 9/16" - 18 UNF-2A  
 0.236 inch ( $\varnothing 6$ mm) test hose (for differential pressure)  
 Other connections available per request
- **Electrical Connection**  
 0.156 inch ( $\varnothing 4$ mm) sockets
- **Over Pressure Warning:** 120%
- **Data Logging**  
 Storage capacity: 30 files, 40 records per file  
 Mode: manual and automatic  
 Hourly-record: record the data every hour  
 Interval-record: set by user
- **Power**  
 Battery: Rechargeable Li-ion polymer battery  
 Li-Battery working time: 40 hours  
 Recharge time: 4 hours  
 External power: 110V/220V power adapter (DC10V)
- **Enclosure**  
 Case material: Aluminum alloy  
 Wetted parts: 316L SS  
 Dimension:  $\varnothing 120$ mm X 46mm depth X 184mm height  
 Weight: 0.7kg
- **European Compliance:** CE marked
- **Communication**  
 RS232 (DB9/F, environmentally sealed)  
 Baud rate: 1200,2400,4800,9600  
 Data length: 8 bits  
 Stop bit: 2 bits  
 Address: from 1 to 112
- **Warranty:** 1 year

ORDERING INFORMATION

Model Number



**Model**

**Range type:**  
 PSI-range by psi  
 BAR-range by bar  
 H<sub>2</sub>O-range by inH<sub>2</sub>O

**Accuracy:**  
 02-0.02% of full scale  
 05-0.05% of full scale  
 10-0.1% of full scale

**Pressure port type:**  
 N-1/4NPT male  
 N2-1/2NPT male  
 B-1/4BSP male  
 B2-1/2BSP male  
 M-M20X1.5 male  
 AF-Autoclave F-250-C female  
 AM-Autoclave M-250-C male

**Pressure range P/N:**  
 See pressure range table

- **Accessories included**  
 110V/220V external power adapter (DC 10V)  
 2 pieces 1.5-meter test leads  
 2 pieces 0.236 inch ( $\varnothing 6$  mm) test hose (for differential pressure gauge only)  
 Additel/Land software (free download at www.additel.com)  
 Manual  
 NIST traceable calibration certificate

Optional Accessories

Model number	Description
9702	Spare rechargeable Li-ion polymer battery for 672
9816	Spare 110V/220V external power adapter (DC 10V) for ADT22X and ADT672 calibrator
9502	Additel/Log II real time data logging and graphical software for 681 and 672
9506	Additel/PCal pressure calibration software
9050	USB to RS232 (DB9/M) Adapter
9900-672	Carrying Case for one 672 digital pressure gauge
9022	Spare 2 pieces test leads (1.5-meter) for 672