

## ADT-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 0.025%FS



Gauge pressure

Differential pressure

### OVERVIEW

With advanced microprocessor technology and state-of-the-art silicon pressure sensors, the ADT-672 series precision pressure calibrators provide a pressure calibration solution for gauges, transmitters, and switches over a wide pressure range. The ADT-672 is a very portable device and can measure pressure precisely with a built-in pressure sensor, as well as read 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 0.025% F. S. accuracy up to 10,000 psi (700 bar) and 0.1% F. S. accuracy up to 40,000 psi (2,800 bar), every silicon pressure sensor in our gauges has been specially aged, tested and screened before assembly. The ADT-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**  
ADT-672-02: 0.025% of full scale  
ADT-672-05: 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	0.025 (0.05)	3x
GP2	2	0.16	G	0.05	3x
GP5	5	0.35	G	0.025 (0.05)	3x
GP10	10	0.7	G	0.025 (0.05)	3x
GP15	15	1.0	G, L <sup>[3]</sup>	0.025 (0.05)	3x
GP30	30	2.0	G, L <sup>[3]</sup>	0.025 (0.05)	3x
GP50	50	3.5	G, L	0.025 (0.05)	3x
GP100	100	7.0	G, L	0.025 (0.05)	3x
GP300	300	20	G, L	0.025 (0.05)	3x
GP500	500	35	G, L	0.025 (0.05)	3x
GP600	600	40	G, L	0.025 (0.05)	3x
GP1K	1,000	70	G, L	0.025 (0.05)	3x
GP2K	2,000	140	G, L	0.025 (0.05)	3x
GP3K	3,000	200	G, L	0.025 (0.05)	3x
GP5K	5,000	350	G, L	0.025 (0.05)	3x
GP10K	10,000	700	G, L	0.025 (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

Note: [1]. Sealed gauge pressure for above 1000 psi

[2]. G=Gas, L=Liquid

[3]. 0.025% FS for gas media only

Compound Pressure					
P/N	Pressure Range		Media	Accuracy(%FS)	Burst Pressure
	(psi)	(bar)			
CP2	±2	±0.16	G	0.05	3x
CP5	±5	±0.35	G	0.025 (0.05)	3x
CP10	±10	±0.7	G	0.025 (0.05)	3x
CP15	±15	±1	G	0.025 (0.05)	3x
CP30	-15 to 30	-1 to 2	G	0.025 (0.05)	3x
CP100	-15 to 100	-1 to 7	G, L	0.025 (0.05)	3x
CP300	-15 to 300	-1 to 20	G, L	0.025 (0.05)	3x

Absolute Pressure					
P/N	Pressure Range		Media <sup>[2]</sup>	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)	Burst Pressure	Static Pressure Range
	(inH <sub>2</sub> O)	(mbar)				
DP1	±1	±2.5	G	0.05	100x	±10 psi
DP2	±2	±5.0	G	0.05	100x	±10 psi
DP5	±5	±10	G	0.05	50x	±10 psi
DP10	±10	±25	G	0.05	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	0.025	3x	50 psi
DP300	±300	±700	G	0.025	3x	50 psi

\* One year accuracy (including yearly stability) except DP1 and DP2 range which is 0.05%FS calibration accuracy and 0.05%FS yearly 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	

Note: [1] 1V-12V if switch has detective voltage

## ADT-672

### Digital Pressure Calibrators

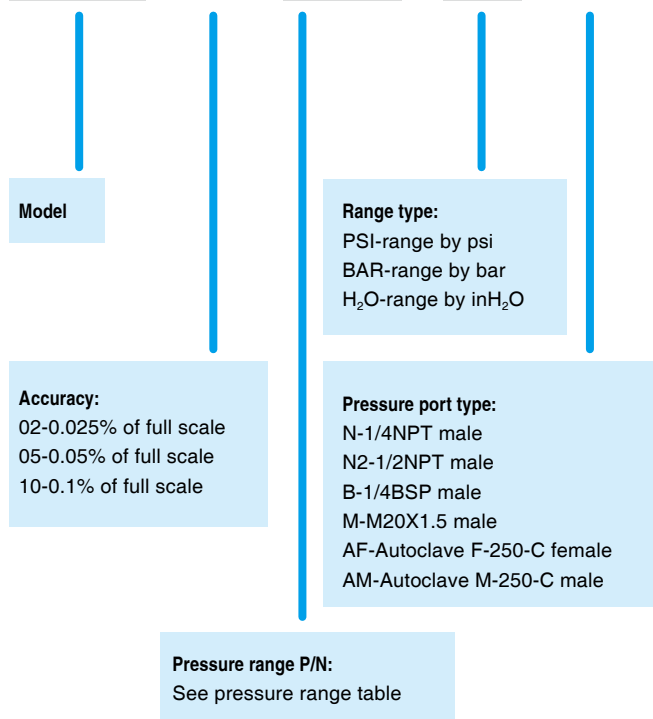
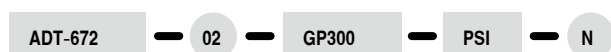


#### SPECIFICATIONS

- Pressure Connections**  
 1/4NPT male, 1/4BSP 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 Logger**  
 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



- 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](http://www.additel.com))  
 Manual  
 NIST traceable calibration certificate

##### ■ Optional Accessories

Model number	Description
9702	Spare rechargeable Li-ion polymer battery for ADT-672
9814	Spare 110V/220V external power adapter (DC 10V) for ADT-672 digital pressure calibrator
9502	Additel/Log II real time data logging and graphical software for ADT-681 and ADT-672
9506	Additel/PCal pressure calibration software
9050	USB to RS232 (DB9/M) Adapter
9900-672	Carrying Case for one ADT-672 digital pressure gauge
9021	Spare 2 pieces test leads (1.5-meter) for ADT-672