

## 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 in a wide pressure range. In a highly portable package, it can not only measure pressure precisely with a built-in pressure sensor, but can also read the current or mV produced by the transducer, and can even supply an excitation voltage to power sensors or transmitters during calibration. To reach 0.025% F. S. accuracy over ranges to 10,000 psi (700 bar) and 0.1% F. S. accuracy over range to 36,000 psi (2,500 bar), every silicon pressure sensor in gauges has been specially aged, tested and screened before assembly. ADT 672 series precision pressure calibrators are unmatched in performance and reliability.



Gauge pressure

Differential pressure

- Pressure ranges to 36,000 psi (2500 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

## FEATURES

- Pressure measurement uncertainty:  
ADT 672-02: 0.025% FS  
ADT 672-05: 0.05% FS
- Pressure ranges to 36,000 psi (2500 bar)
- Measure mA or V with 0.02% RD + 0.003%FS 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
- Back lighted display
- Rechargeable battery or AC adapter
- NIST traceable calibration

## SPECIFICATIONS

- **Accuracy**  
ADT 672-02: 0.025% of full scale  
ADT 672-05: 0.05% of full scale
- **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, mmH<sub>2</sub>O, inHg, mmHg, 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)  
\*0.025%FS accuracy guaranteed only over the ambient temperature range of 68°F to 79°F (20°C to 26°C)

## SPECIFICATIONS

Storage Temperature: -4°F to 158°F (-20°C to 70°C)

Humidity: <95%

### Media Compatibility

0 – 30 psi: Clean dry non-corrosive gases

50 – 36,000 psi: media compatible with 316L SS

### Pressure Ranges

Gauge Pressure <sup>[1]</sup>					
P/N	Pressure Range (psi)	Pressure Range (bar)	Media <sup>[2]</sup>	Accuracy (% FS)	Burst Pressure
V15	-15	-1.0	G	0.025 (0.05)	3 X
GP2	2	0.16	G	0.025 (0.05)	3 X
GP5	5	0.35	G	0.025 (0.05)	3 X
GP10	10	0.7	G	0.025 (0.05)	3 X
GP15	15	1.0	G,L <sup>[3]</sup>	0.025 (0.05)	3 X
GP30	30	2.0	G,L <sup>[3]</sup>	0.025 (0.05)	3 X
GP50	50	3.5	G,L	0.025 (0.05)	3 X
GP100	100	7.0	G,L	0.025 (0.05)	3 X
GP300	300	20	G,L	0.025 (0.05)	3 X
GP500	500	35	G,L	0.025 (0.05)	3 X
GP1K	1000	70	G,L	0.025 (0.05)	3 X
GP3K	3000	200	G,L	0.025 (0.05)	3 X
GP5K	5000	350	G,L	0.025 (0.05)	3 X
GP10K	10000	700	G,L	0.025 (0.05)	2 X
GP15K	15000	1000	G,L	0.1	2 X
GP25K	25000	1600	G,L	0.1	1.5 X
GP30K	30000	2000	G,L	0.1	1.5 X
GP36K	36000	2500	G,L	0.1	1.5 X

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 (psi)	Pressure Range (bar)	Media	Accuracy (% FS)	Burst Pressure
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

Absolute Pressure					
P/N	Pressure Range (psi)	Pressure Range (bar)	Media <sup>[2]</sup>	Accuracy (% FS)	Burst Pressure
AP5	5	0.35	G	0.1 (0.2)	3 X
AP10	10	0.7	G	0.1 (0.2)	3 X
AP15	15	1.0	G	0.1 (0.2)	3 X
AP30	30	2.0	G	0.1 (0.2)	3 X
AP50	50	3.5	G	0.1 (0.2)	3 X
AP100	100	7.0	G, L	0.1 (0.2)	3 X
AP300	300	20	G, L	0.1 (0.2)	3 X
AP500	500	35	G, L	0.1 (0.2)	3 X
AP1K	1000	70	G, L	0.1 (0.2)	3 X
AP3K	3000	200	G, L	0.1 (0.2)	3 X
AP5K	5000	350	G, L	0.1 (0.2)	3 X

Differential Pressure					
P/N	Pressure Range (inH <sub>2</sub> O)	Pressure Range (mbar)	Media <sup>[2]</sup>	Accuracy (% FS)	Burst Pressure
DP1	1	2.5	G	0.4	100 X
DP2	2	5.0	G	0.2	100 X
DP5	5	10	G	0.1	50 X
DP10	10	25	G	0.1	20 X
DP20	20	50	G	0.05	20 X
DP30	30	100	G	0.05	20 X

Electrical Measurement and Source Accuracy		
	Range	Accuracy
Voltage DC	±30.0000V	± (0.02%RD+0.003%FS)
Current DC	±30.0000mA	± (0.02%RD+0.003%FS)
DC 24V	24V±0.5V max:50mA	Protect at: 120mA
Switch <sup>[1]</sup>	Status OPEN/CLOSED	

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

## SPECIFICATIONS

### ■ Pressure Connections

1/2" NPT ( $\leq 15,000$  PSI)

Autoclave F-250-C, 9/16" - 18 UNF female or Autoclave M-250-C, 9/16"-18 UNF male ( $> 15,000$  PSI)

0.156 inch ( $\varnothing 4$  mm) test hose (for differential pressure)

Other connections available per request

### ■ Electrical Connection

0.156 inch (4mm) 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 (DC 10V)

### ■ 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

### ■ Accessories (included)

110V/220V external power adapter (DC 10V)

2 pieces 1.5-meter test leads

2 pieces 0.156 inch ( $\varnothing 4$  mm) test hose (for differential pressure gauge only)

## ORDERING INFORMATION

### ■ Model Number

ADT672 - 02 - GP300 - PSI - N

#### Model

#### Accuracy:

02 - 0.025% of full scale

05 - 0.05% of full scale

10 - 0.1% of full scale

20 - 0.2% of full scale

40 - 0.4% of full scale

#### Pressure range P/N:

See pressure range table

#### Pressure port type:

N - 1/2" NPT male

AF-Autoclave F-250-C

AM-Autoclave M-250-C

X - Customize

#### Range type:

PSI - range by psi

BAR - range by bar

H2O - range by in H<sub>2</sub>O

### ■ 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 672 digital pressure calibrator
9500	Additel/Log software for downloading ADT672 test results stored in memory.
9502	Additel/Log II real time logging and graphical software for ADT681 and ADT672
9900-672	Carrying Case for one ADT672 digital pressure gauge
9021	Spare 2 pieces test leads (1.5-meter) for ADT 672
9050	USB to RS232 (DB9/M) Adapter
9111	NIST traceable calibration for ADT672 Series calibrators. ( $\leq 10000$ psi)
9112	NIST traceable calibration for ADT672 Series calibrators. ( $>10000$ psi)