



## OVERVIEW

With advanced microprocessor technology and state-of-the-art silicon pressure sensors, the ADT672 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. ADT672 series precision pressure calibrators are unmatched in performance and reliability.

## FEATURES

- Pressure measurement uncertainty:
  - 02: 0.025%FS
  - 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
- NIM traceable calibration certificate (optional)

## APPLICATIONS

- Gauge calibration
- Precision pressure measurement
- Pressure transmitters calibration
- Pressure switch testing
- Safety relief valve testing
- Pressure regulator testing
- Hydraulic leak testing

## SPECIFICATIONS

- › Accuracy
  - 02: 0.025% of full scale
  - 05: 0.05% of full scale
- › Gauge types
  - Gauge pressure
  - Compound Pressure
  - Absolute pressure
  - Differential pressure

| 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                    | 0.05            | 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

| Absolute Pressure |                      |                      |       |                 |                |
|-------------------|----------------------|----------------------|-------|-----------------|----------------|
| P/N               | Pressure Range (psi) | Pressure Range (bar) | Media | 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 | Accuracy (% FS) | Burst Pressure |
| DP1                   | 1                                   | 2.5                   | G     | 0.4             | 100 X          |
| DP2                   | 2                                   | 6.0                   | 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           |

| 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             |

| 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>III</sup>                      | Status OPEN/CLOSED                  |                      |

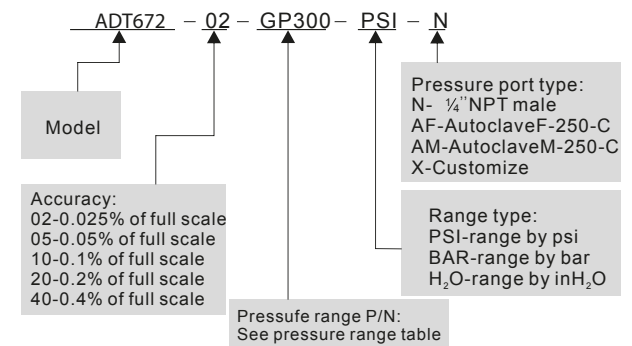
Note: [1] 1~12V if switch has detective voltage

- 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
- 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)
  - 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 Port
  - ¼" NPT (≤15,000psi)
  - Autoclave F-250-C, 9/16" - 18 UNF female or Autoclave M-250-C, 9/16"-18 UNF male(>15,000psi)
  - 0.156 inch (4mm) 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: Recharge Li-ion polymer battery
  - Li-Battery working time: 40 hours
  - Rechargeable time: 4 hours
  - External power: 110V/220V power adapter(DC 10V)
- Enclosure
  - Case material: Aluminum alloy
  - Wetted parts: 316L SS
  - Dimension: 120mm diameter X 46mm depth X 184mm height
  - Weight: 0.7kg
- Communication
  - RS232 (DB9/F, environmentally sealed)
- Accessories (included)
  - 110V/220V external power adapter (DC 10V)
  - 2 pieces 1.5-meter test leads
  - 2 pieces 0.156 inch (4 mm) test hose (for differential pressure gauge only)

## ORDERING INFORMATION

Model Number



## Optional Accessories

| Model Number | Description   |
|--------------|---|
| 9702         | Spare rechargeable Li-ion polymer battery                                       |
| 9814         | Spare 110V/220V external power adapter (DC 10V) for digital pressure calibrator |
| 9902         | Carrying case for digital pressure gauge (up to 4 pieces)                       |
| 9021         | Spare 2 pieces test leads (1.5-meter)   |
| 9050         | USB to RS232 (DB9/M) Adapter  |
| 9111         | NIM traceable calibration certificate for series gauges (≤10,000psi)            |
| 9112         | NIM traceable calibration certificate for series gauges (>10,000psi)            |
| 9500         | Log software for downloading test results stored in memory                      |
| 9502         | Log II real time logging and graphical software                                 |