

## OVERVIEW

With advanced microprocessor technology and state-of-the-art silicon pressure sensors, the ADT 681 series digital pressure gauges provide an accurate, reliable, and economic solution for a wide range of pressure applications. They are loaded with functionality and remarkably easy to use. To reach the best performance, every silicon pressure sensor in our gauges have been specially aged, tested and screened before assembly. ADT 681 series digital pressure gauges are unmatched in performance and reliability. Best of all, they are very affordable.



Gauge pressure

Differential pressure

- Pressure ranges to 36,000 psi (2500 bar)
- 0.025%, 0.05%, 0.1% or 0.2% FS accuracy
- % pressure indication with fan-shaped graph scale for visual reference
- Fully temperature compensated accuracy
- Panel mount version is available

## FEATURES

- Pressure ranges to 36,000 psi (2500 bar)
- 0.025% full scale accuracy (ADT 681-02)  
0.05% full scale accuracy (ADT 681-05)  
0.1% full scale accuracy (ADT 681-10)  
0.2% full scale accuracy (ADT 681-20)
- Fully temperature compensated accuracy from 14°F to 122°F (-10°C to 50°C)
- Up to eleven selectable pressure units
- Large, easy to read display with 5-digit resolution
- Back lighted display
- % pressure indication with fan-shaped graph scale for visual reference
- Display flash warning when pressure over 120% of FS
- Bottom mount or panel mount
- ATEX certified intrinsically safe (Model ADT 681IS)
- NIST traceable calibration with data (Included)
- 9V battery power or AC adapter (optional)

## SPECIFICATIONS

- **Model**  
ADT 681: Regular gauge  
ADT 681IS: ATEX certified intrinsically safe
- **Accuracy**  
ADT 681(IS)-02: 0.025% of full scale  
ADT 681(IS)-05: 0.05% of full scale  
ADT 681(IS)-10: 0.1% of full scale  
ADT 681(IS)-20: 0.2% of full scale  
(For detail accuracy, please see pressure range table)
- **Gauge Types**  
Gauge pressure  
Compound pressure  
Absolute pressure  
Differential pressure
- **Fan-shaped Graph Scale**  
Similar to analog dials, including pressure swing, % indication with fan-shaped graph scale for visual reference, low/high alarm.
- **Display**  
Description: 5 full digit FSTN LCD  
Display rate: 3 readings per second (Default setting).  
Adjustable from 10 readings per second to 1 reading every ten seconds  
Numerical display height: 16.5mm (0.65")

## SPECIFICATIONS

### ■ 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, 0.1, 0.2)	3 X
GP2	2	0.16	G	0.05 (0.1, 0.2)	3 X
GP5	5	0.35	G	0.025 (0.05, 0.1, 0.2)	3 X
GP10	10	0.7	G	0.025 (0.05, 0.1, 0.2)	3 X
GP15	15	1.0	G,L <sup>[3]</sup>	0.025 (0.05, 0.1, 0.2)	3 X
GP30	30	2.0	G,L <sup>[3]</sup>	0.025 (0.05, 0.1, 0.2)	3 X
GP50	50	3.5	G,L	0.025 (0.05, 0.1, 0.2)	3 X
GP100	100	7.0	G,L	0.025 (0.05, 0.1, 0.2)	3 X
GP300	300	20	G,L	0.025 (0.05, 0.1, 0.2)	3 X
GP500	500	35	G,L	0.025 (0.05, 0.1, 0.2)	3 X
GP600	600	40	G,L	0.025 (0.05, 0.1, 0.2)	3X
GP1K	1000	70	G,L	0.025 (0.05, 0.1, 0.2)	3 X
GP2K	2000	140	G,L	0.025 (0.05, 0.1, 0.2)	3X
GP3K	3000	200	G,L	0.025 (0.05, 0.1, 0.2)	3 X
GP5K	5000	350	G,L	0.025 (0.05, 0.1, 0.2)	3 X
GP10K	10000	700	G,L	0.025 (0.05, 0.1, 0.2)	2 X
GP15K	15000	1000	G,L	0.1 (0.2)	2 X
GP25K	25000	1600	G,L	0.1 (0.2)	1.5 X
GP30K	30000	2000	G,L	0.1 (0.2)	1.5 X
GP36K	36000	2500	G,L	0.1 (0.2)	1.5 X
Compound Pressure					
P/N	Pressure Range (psi)	Pressure Range (bar)	Media	Accuracy (% FS)	Burst Pressure
CP2	±2	±0.16	G	0.05 (0.1,0.2)	3X
CP5	±5	±0.35	G	0.025(0.05,0.1,0.2)	3X
CP10	±10	±0.7	G	0.025(0.05,0.1,0.2)	3X
CP15	±15	±1	G	0.025(0.05,0.1,0.2)	3X
CP30	-15 to 30	-1 to 2	G	0.025(0.05,0.1,0.2)	3X

### ■ Pressure Units

Pa, kPa, MPa, psi, bar, mbar, kgf/cm<sup>2</sup>, 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

### 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	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

- Note: [1]. Sealed gauge pressure for above 1000 psi  
 [2]. G=Gas, L=Liquid (please specify media type when place order)  
 [3]. 0.025% FS for gas media only



## SPECIFICATIONS

### ■ Pressure Connections

1/4" NPT male, 1/4" BSP male, M20X1.5 male ( $\leq 15,000$  psi)  
Autoclave F-250-C female (1/4" HP female) or F-250-C male (1/4" HP male) ( $> 15,000$  psi)

1/4" HP female: Autoclave F-250-C, 9/16" - 18 UNF-2B

1/4" HP male: Autoclave F-250-C, 9/16" - 18 UNF-2A

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

Other connections available per request

### ■ Power

Battery: One 9V alkaline battery (included)

Battery life: 300 hours (10 readings/s), 600 hours (3 reading/s), or 6000 hours (1 reading/10s)

Power auto-off: 60 minutes power auto-off. Auto-off may be disable

External power: 110V/220V external power adapter (optional)

*(Do not use the external power adapter in a hazardous atmosphere)*

### ■ Enclosure

Case material: Aluminum alloy

Wetted parts: 316L SS

Dimension:  $\varnothing 110\text{mm}$  X 35mm depth X 176mm height  
*(panel mount gauge:  $\varnothing 140\text{mm}$  X 86mm depth)*

Weight: 0.6kg

### ■ Intrinsic Safety and European Compliance

CE marked

ATEX certified intrinsically safe (ADT 681IS)

### ■ Communication

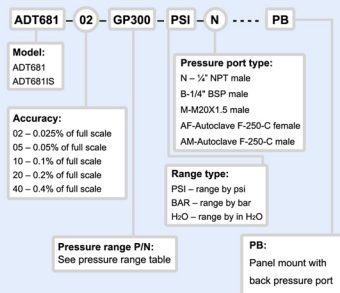
RS232

*(Do not use the RS-232 connector in a hazardous atmosphere)*

### ■ Warranty: 1 year

## ORDERING INFORMATION

### ■ Model Number



### ■ Accessories (included)

9V alkaline battery (1 pc)

manual

NIST traceable calibration certificate

### ■ Optional Accessories

Model number	Description
9812	110V/220V external power adapter (DC 9V) for 681 digital pressure gauge.
9502	Additel/Log II real time data logging and graphical software for ADT681 and ADT672.
9050	USB to RS232 (DB 9/M) adapter.
9900-681	Carrying case for one ADT681 digital pressure gauge