Additel 680 Series
Digital Pressure Gauges

- **Pressure ranges to 40,000 psi (2,800 bar)**
- **0.05%, 0.1% or 0.25%FS accuracy**
- **Fully temperature compensated accuracy**
- **IP67**
- **Data logging and wireless (Optional model)**

680 with data logging and wireless (optional)

OVERVIEW

With advanced microprocessor technology and state-of-the-art silicon pressure sensors, the 680 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 is specially aged, tested and screened before assembly. With data logging and wireless features, the 680W gauge can store pressure measurement data in the internal memory or display them on a PC through wireless communication. The 680 series digital pressure gauges are unmatched in performance and reliability. Best of all they are very affordable.

FEATURES

- Pressure ranges to 40,000 psi (2,800 bar)
- 0.05%, 0.1% or 0.25% full scale accuracy
- Fully temperature compensated accuracy from 14°F to 122°F (-10°C to 50°C)
- Up to 13 selectable pressure units, 6 customized definition engineering units
- Large, easy to read display with 5-digit resolution
- Backlit display
- Icon-based menu
- Display flash warning when pressure exceeds 120% of FS
- Stainless wetted surface construction
- IP67 (submersible in 1 meter of water)
- Drop-tested from 1 meter
- 2 AA alkaline batteries
- CE R&TTE, FCC ID, IC ID Certificates
- NIST traceable calibration with data(included)

SPECIFICATIONS

- **Models**
  ADT680: Regular version
  ADT680W: Data logging and wireless version
  Pressure Type: Gauge and Compound

- **Performance**
  Accuracy: 0.05%, 0.1% or 0.25%FS
  Update Rate: 10 times/Sec ,3 times /Sec (default),
  1 time /Sec ,1 time/15 Seconds
  Operating Temperature: 14°F to 122°F (-10°C to 50°C)
  Compensated Temperature: 14°F to 122°F (-10°C to 50°C), accuracy guaranteed
  Storage Temperature: -4°F to 158°F (-20°C to 70°C)
  Overload Pressure: 1.2X

- **Power Supply**
  Battery: 2 x AA alkaline (LR6) batteries
    *Recommend: Duracell MX1500, EnergizerE91,
        Panasonic LR6, or Duracell 15AU
  Battery Life:
  10 rdg/sec: 1500 hrs; 3 rdg/sec: 3000 hrs
  1 rdg/sec: 6000 hrs; 1 rdg/15 sec: 12000 hrs.
  Rated Power: 3.0VDC Imax=30mA Pmax=90mW

- **Material**
  Wetted Surface: All wetted surfaces are 316L Stainless Steel with welded design for gauges ≤10,000 psi (no O-ring, thread tape, epoxy, or sealant on any part of the sensor assembly), and copper O-ring design for gauges > 10,000 psi.
  Case: PC+ABS
  Protective Cover: Silicone Rubber

SPECIFICATIONS

- **Display**
  LCD Specification: FSTN-LCD,Visual scope 36x61mm;
  Full 5 digits,15.2mm High; 7 segment analog bar graph scaled from 0-100% of FS
  Backlight: White
- **Wireless Communication (ADT680W only)**
  Wireless Frequency: 2.4G ISM Bands, 20 meter range
  Number of wireless Channels : Chanel 1-15
  Software: Wireless network demo software included
- **Data Logging (ADT680W only)**
  Storage Capacity: 140,000 readings(time, pressure, and temperature)
  Storage Interval: Adjustable from 1-9999 Sec
- **Compliances**
  Certificates:CE R&TTE, FCC ID, IC ID
  Protection Level: IP67
  Vibration: 5g(20-2000Hz)
  Shock resistance: 100g/11ms
- **Others**
  Dimensions: 100mm x 40mm, total height:157mm
  Weight: 500g
  Fitting: 1/4NPT male, 1/4BSP male, M20×1.5 male (≤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

  Other connections available per request

Gauge Pressure

P/N	Pressure Range (psi)[1]	Pressure Range (bar)	Accuracy(FS%)	Media[2]	Burst Pressure
V15	-15	-1.0	0.05 (0.1, 0.25)	G	3×
GP15	15	1.0	0.05 (0.1, 0.25)	G,L	3×
GP30	30	2.0	0.05 (0.1, 0.25)	G,L	3×
GP100	100	7.0	0.05 (0.1, 0.25)	G,L	3×
GP300	300	20	0.05 (0.1, 0.25)	G,L	3×
GP500	500	35	0.05 (0.1, 0.25)	G,L	3×
GP1K	1,000	70	0.05 (0.1, 0.25)	G,L	3×
GP3K	3,000	200	0.05 (0.1, 0.25)	G,L	3×
GP5K	5,000	350	0.05 (0.1, 0.25)	G,L	3×
GP10K	10,000	700	0.05 (0.1, 0.25)	G,L	3×
GP15K	15,000	1,000	0.05 (0.1, 0.25)	G,L	2×
GP20K	20,000	1,400	0.05 (0.1, 0.25)	G,L	1.5×
GP25K	25,000	1,600	0.1 (0.25)	G,L	1.5×
GP30K	30,000	2,000	0.1 (0.25)	G,L	1.5×
GP36K	36,000	2,500	0.1 (0.25)	G,L	1.5×
GP40K	40,000	2,800	0.1 (0.25)	G,L	1.1×

Compound Pressure

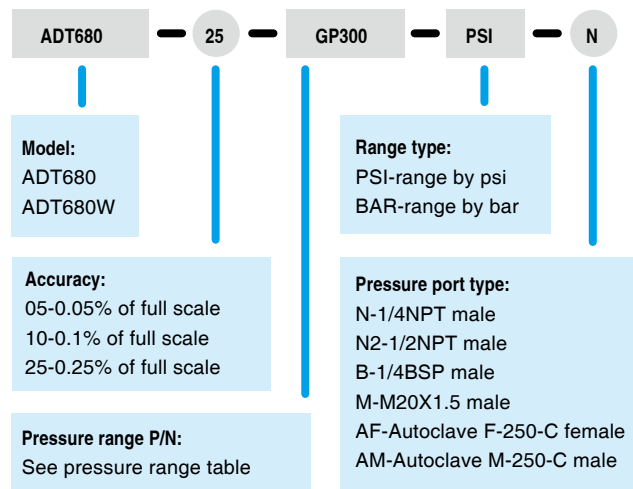| P/N	Pressure Range (psi)	Pressure Range (bar)	Accuracy(FS%)	Media[3]	Burst Pressure
CP15	±15	±1	0.05(0.1, 0.25)	G,L	3×
CP30	-15 to 30	-1 to 2	0.05(0.1, 0.25)	G,L	3×

Note: [1]. Sealed gauge pressure for above 1000 psi.
[2][3].G=Gas, L=Liquid

- **Auto off:**
  Disabled,15, 30, 45, 60, 90, or 120 Minutes.
- **Filtering:** Averaging (3 to 10 samples) or low-pass first-order filter.
- **Engineering units**: Pa, kPa, MPa, bar, mba, psi, kgf/cm^2, mmH$_2$O, mmHg, inH$_2$O, inHg, ozf/in, %, °C, °F. extend units: inH$_2$O(20°C), inH$_2$O(60°F), mmH$_2$O(20°C), mmH$_2$O(15°C), ftH$_2$O(60°F), or ftH$_2$O(4°C)
- **Backlight Duration:**
  Not auto off,15,30,45,60 seconds optional.
- **Max/Min data capture:** Saves Max and Min data during pressure measurement.
- **Key Lockout:** When the gauge is in auto-storing mode, the front panel buttons will be automatically locked.
- **Overpressure Alarm:** Display will flash over 120%FS
- **Battery voltage Indicator:** Displays the battery life remaining. When the battery voltage is too low, the gauge will power-off automatically.
- **Overpressure Record:**
  Gauge will record max pressure data when the gauge is over pressured by 120% of FS.
- **Leakage test:**
  In leak test mode, the gauge will record beginning pressure, ending pressure, and show the difference ΔP.
- **Factory Reset:**
  Resets all settings back to factory default, except the calibration parameters.
- **Warranty**: 1 year

ORDERING INFORMATION

- **Model Number**

ADT680 — 25 — GP300 — PSI — N

Model:
ADT680
ADT680W

Accuracy:
05-0.05% of full scale
10-0.1% of full scale
25-0.25% of full scale

Pressure range P/N:
See pressure range table

Range type:
PSI-range by psi
BAR-range by bar

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

- **Accessories included**
  AA battery (2 pcs); Manual; NIST traceable calibration certificate; Rubber boot for Additel 680 gauge;
  Additel/Land Wireless software for 680W (free download at www.additel.com)

- **Optional Accessories**

Model number	Description
9503	Additel/Log II Wireless real time data logging and graphical software for 680W

To order parts and items, go to **www.Instrumentation.com** or call **(800) 346-4620**