

Additel 680

Digital Pressure Gauges

- Pressure ranges to 10,000 psi (700 bar)
- 0.25%FS accuracy
- Fully temperature compensated accuracy
- IP67
- Data logging and wireless (Optional model)



Gauge pressure

680 with rubber boot (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 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 10,000 psi (700 bar)
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 RTTE, FCC ID, IC ID Certificates
- NIST traceable calibration with data (included)

SPECIFICATIONS

- **Model**
ADT680: Regular version
ADT680W: Data logging and wireless version
Pressure Type: Gauge
- **Performance**
Accuracy: 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, Energizer E91,
Panasonic LR6, Duracell 15AU
Usage Period:
10/Sec: 1500Hours; 3/Sec: 3000Hours;
1/Sec: 6000Hours; 1/15Sec: 12000Hours
Rated Power: 3.0VDC I_{max}=30mA P_{max}=90mW
- **Material**
Wetted Surface: All wetted surfaces are 316L
Stainless Steel with welded design (no O-ring,
thread tape, epoxy, or sealant on any part of the
sensor assembly)
Case: PC+ABS
Protective Cover: Silicone Rubber (Optional)

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 for free
- Data Logging (ADT680W only)**
 Storage Capacity: 140,000 readings(time, pressure, and temperature)
 Storage Interval: Adjustable from 1~9999 Sec
- Compliances**
 Certificates: CE RTTE, 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, G1/4, M20x1.5, or custom-made
- Auto off:**
 Disabled, 15, 30, 45, 60, 90, 120 Minutes optional.
- Filtering:** Averaging (3 to 10 samples) or low-pass first-order filter.

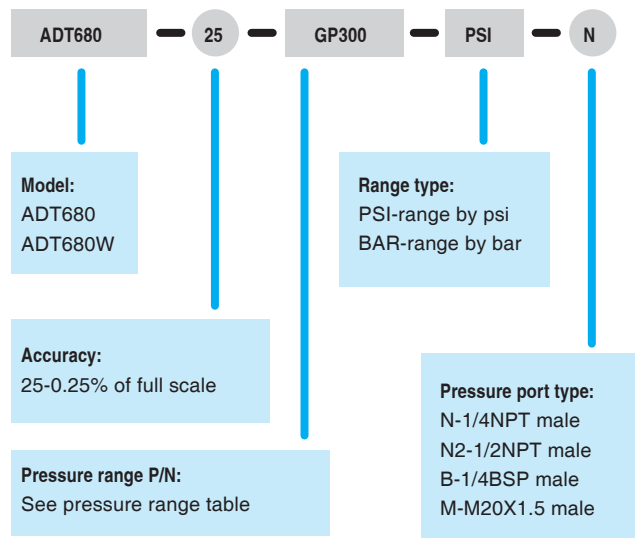
Gauge Pressure				
P/N	Pressure Range (psi) ^[1]	Pressure Range (bar)	Media ^[1]	Burst Pressure
V15	-15	-1.0	G	3X
GP15	15	1.0	G,L	3X
GP30	30	2.0	G,L	3X
GP100	100	7.0	G,L	3X
GP300	300	20	G,L	3X
GP500	500	35	G,L	3X
GP1K	1,000	70	G,L	3X
GP3K	3,000	200	G,L	3X
GP5K	5,000	350	G,L	3X
GP10K	10,000	700	G,L	3X

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

- Engineering units:** Pa, kPa, MPa, bar, mba, psi, kgf/cm², mmH₂O, mmHg, inH₂O, inHg, ozf/in, %, °C, °F.
 extend units: inH₂O(20°C), inH₂O(60°F), mmH₂O(20°C), mmH₂O(15°C), ftH₂O(60°F), ftH₂O(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



- Accessories included**
 AA battery (2 pcs)
 Manual
 NIST traceable calibration certificate
- Optional Accessories**

Model number	Description
9253	Rubber boot for Additel 680 gauge

Multifunction Process Calibrators Selection Guide

Models	Additel 220 Multifunction Loop Calibrator	Additel 221A Multifunction Temperature Calibrator	Additel 222A Multifunction Process Calibrator	Additel 223A Documenting Process Calibrator
Measure				
Voltage(mV)	±300 mV	±75 mV	±75 mV	±75 mV
Voltage(V)	±60 V	±30 V	±30 V	±30 V
Current (mA)	±30 mA	±30 mA	±30 mA	±30 mA
Resistance(ohm)	0 to 2,000 ohm	0 to 4,000 ohm	0 to 4,000 ohm	0 to 4,000 ohm
Frequency(Hz)		1 to 50,000 Hz	1 to 50,000 Hz	1 to 50,000 Hz
Pulse		0 to 999,999	0 to 999,999	0 to 999,999
Limit Switch	3 to 24V	3 to 24V	3 to 24V	3 to 24V
Pressure			● ^[1]	● ^[1]
Source / Simulate				
Voltage(mV)	-10 to 200 mV	-10 to 75 mV	-10 to 75 mV	-10 to 75 mV
Voltage(V)	0 to 12 V	0 to 12 V	0 to 12 V	0 to 12 V
Current (mA)	0 to 22 mA	0 to 22 mA	0 to 22 mA	0 to 22 mA
Resistance(ohm)		1 to 4,000 ohm	1 to 4,000 ohm	1 to 4,000 ohm
Frequency(Hz)		0 to 50,000 Hz	0 to 50,000 Hz	0 to 50,000 Hz
Pulse		0 to 999,999	0 to 999,999	0 to 999,999
DC 24 V	●	●	●	●
Record				
Scaling	●	●	●	●
Min/Max/Avg/Tare	●			
Hold	●			
As found/ As left	●	●	●	●
Data Logging	●	●	●	●
Upload data to PC		●	●	●
Features				
24V loop supply	●	●	●	●
Ramp/ Step	●	●	●	●
Simulate Transmitter		●	●	●
RTD		11 types ^[2]	11 types ^[2]	11 types ^[2]
Thermocouple		13 types ^[3]	13 types ^[3]	13 types ^[3]
HART communication	● ^[4]			●
Documenting		●	●	●
Warranty	3 years	3 years	3 years	3 years
NIST traceable calibration	●	●	●	●
See Page	P31	P33	P36	P39

[1] Additel 160 External Pressure Module required

[2] RTD Includes Pt10(385), Pt100(385), Pt100(3916), Pt100(3926), Pt500(385), Pt1000(385), Cu10(427), Cu50(428), Cu100(428), Ni100(617), Ni120(672), Ni1000 and customized

[3] Thermocouple Includes S, R, B, K, N, E, J, T, C, D, G, L, U

[4] Built-in 250Ω resistor for HART communications.