Additel 680 Series
Digital Pressure Gauges

Metrology Made Simple

- **Pressure ranges to 60,000 psi (4,200 bar)**
- **Now offering 0.05% accuracy up to 40K psi**
- 0.05%, 0.1% or 0.25%FS accuracy
- Fully temperature compensated accuracy
- IP67
- Data logging and wireless (680W)



680 with data logging and wireless (optional)

OVERVIEW

We designed the 680 series digital pressure gauges with two main objectives in mind. First, to provide an affordable digital gauge to replace mechanical gauges. If you're looking to move from dial gauges to a digital gauge, you'll find the 680 standard version gauge to be of high quality and suited for your need in terms of price and performance. 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 is specially aged, tested and screened before assembly.

The second objective was to provide a high-precision pressure gauge capable of wireless communication and data logging. Our 680W series provides just this along with several accuracy and pressure range options to meet your need. This wireless unit is compatible with the Additel/Land Wireless software, which is available for a free download from our website. Data can be recorded standalone with the 680W and then downloaded wirelessly to Additel/Land Wireless. For more advanced logging and data analysis, Additel/Log II Wireless is specially designed to communicate with the 680W. Each unit can store up to 140,000 readings which consist of date, time, pressure, and internal temperature. The 680 series digital pressure gauges are unmatched in performance and reliability. Best of all they are very affordable.

FEATURES

- Pressure ranges to 60,000 psi (4,200 bar)
- 0.05%, 0.1% or 0.25% full span accuracy
- Fully temperature compensated accuracy from 14°F to 122°F (-10°C to 50°C)
- Up to 13 user-selectable pressure units, 6 selectable 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
- ISO 17025 accredited calibration with data(included)

SPECIFICATIONS

Model	ADT680	ADT680W
Description	Digital Pressure Gauge	Wireless Digital Pressure Gauge with Data Logging
Pressure Type	Gauge Pressure, compound Pressure	
Accuracy	0.05%, 0.1% or 0.25%FS	
Update Rate	10 times/Sec ,3 times /Sec (default), 1 time /Sec ,1 time/15 Sec	
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	
Dimensions	100mm x 40mm, total height:157mm	
Weight	500g	

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Model	ADT680	ADT680W
Wireless Communication (ADT680W only)	N/A	Wireless Frequency: 2.4 G ISM Bands, 20 meter range
		Number of wireless Channels : Chanel 1-15
		Software: Wireless network demo software included read up to 20 gauges.
Data Logging (ADT680W only)	N/A	Storage Capacity: 140,000 readings (time, pressure, and temperature)
		Storage Interval: Adjustable from 1-9999 Sec
		Single-button-press data logging enabled
		Key Lockout: When the gauge is in auto-storing mode, the front panel buttons will be automatically locked.
Filtering	Averaging (3 to 10 samples) or low-pass first-order filter.	
Max/Min data capture	Saves Max and Min data during pressure measurement.	
Pressure units	Pa, kPa, MPa, bar, mba, psi, kgf/cm^2, mmH_2O, mmHg, inH_2O, inHg, ozf/in, %, °C, °F Engineering units: inH_2O(20°C), inH_2O(60°F), mmH_2O(20°C), mmH_2O(15°C), ftH_2O(60°F), or ftH_2O(4°C)	
Display	LCD Specification: FSTN-LCD,Visual scope 36x61 mm	
	Full 5 digits,15.2 mm High	
	7 segment analog bar graph scaled from 0-100% of FS	
	Backlight: White	
	Backlight Duration: Not auto off,15,30,45,60 seconds optional	
Auto off	Disabled,15, 30, 45, 60, 90, or 120 Minutes	
Compliance	Certificates: CE R&TTE, FCC ID, IC ID	
	Protection Level: IP67	
	Vibration: 5 g (20-2000Hz)	
	Shock resistance: 100 g/11 ms	
Pressure Port	≤15,000 PSI: 1/4NPT male, 1/2NPT male, 1/4BSP male, 1/2BSP male, M20×1.5 male	
	>15,000 PSI: 1/4HP female or 1/4HP male *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.	
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.	
Battery Life	1500 hours (10 readings/sec), 3000 hours (3 readings/sec), 6000 hours (1 readings/sec), 12000 hours (1 readings/15 s) (100 hours when wireless communication is on)	
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	

PRESSURE RANGE

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

[1] Sealed gauge pressure for above 1,000 psi.
[2] FS specification applies to the span of the range.
[3] G=Gas

SPECIFICATIONS

Gauge Pressure					
P/N	Pressure Range		Accuracy(FS%)	Media[3]	Burst Pressure
	(psi)[1]	(bar)			
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×
GP150	150	10	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×
GP1.5K	1,500	100	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	0.05 (0.1, 0.25)	G,L	1.5×
GP30K	30,000	2,000	0.05 (0.1, 0.25)	G,L	1.5×
GP36K	36,000	2,500	0.05 (0.1, 0.25)	G,L	1.5×
GP40K	40,000	2,800	0.05 (0.1, 0.25)	G,L	1.35×
GP50K	50,000	3,500	0.1 (0.25)	G,L	1.2×
GP60K	60,000	4,200	0.1 (0.25)	G,L	1.1×

[1] Sealed gauge pressure for above 1,000 psi.
[2] FS specification applies to the span of the range.
[3] G=Gas, L=Liquid

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
B2-1/2BSP male
M-M20X1.5 male
AF-Autoclave F-250-C female
AM-Autoclave M-250-C male

Accessories Included

AA battery (2 pcs)
Rubber boot for Additel 680 gauge;
Additel/Land Wireless software for 680W - includes USB dongle (free download at www.additel.com)
ISO 17025 accredited calibration certificate

Optional Accessories

Model number	Description
9502	Additel/Log II real time data logging and graphical software for 680W
9030	Spare wireless master device (USB dongle) for ADT680W gauge.
9900-681	Carrying case (1 gauge)
9253	Rubber boot
9902	Carrying case (4 gauges)
9200-680	Certified O_2 cleaning

Note: For O_2 applications contact Additel.