

ADT 680 Digital Pressure Gauge



- Pressure range to 4200 bar (60,000 psi)
- Now offering 0,05% accuracy up to 2800bar (40K psi)
- Accuracy 0.05%; 0,1%; 0,25% FS
- Fully temperature compensated accuracy from -10°C to +50°C
- IP67
- Data logging and wireless (optional 680W)

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 4200 bar
- 0.05%; 0.1% or 0.25% full scale accuracy
- Fully temperature compensated accuracy from -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
- ISO 17025 accredited calibration with data(included), (DAkkS- Certificate on demand)

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	-10°C to 50°C	
Compensated Temperature	-10°C to 50°C, accuracy guaranteed	
Storage Temperature	-20°C to 70°C	
Overload Pressure	1.2x	
Dimensions	100mm x 40mm, total height:157mm	
Weight	500g	
Wireless Communication (ADT680W only)	N/A	Wireless Frequency: 2.4G ISM Bands, 20 meter range
		Number of wireless Channels : Chanel 1-15
		Software: Wireless network demo software included read upto 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, psi, bar, mbar, kgf/cm ² , inH ₂ O@4°C mmH ₂ O@4°C, inHg@0°C, mmHg@0°C	
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	
	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: 5g(20-2000Hz)	
	Shock resistance: 100g/11ms	
Pressure Port	≤15,000 psi: 1/4NPT male; 1/2NPT males; 1/4BSP male; 1/2BSP male; M20x1,5 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)	
	Differential Pressure: 0.236 inch (Ø6 mm) test hose	
	Other connections available per request	

Model	ADT680	ADT680W
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	

Compound Pressure					
(Sealed Gauge pressure for above 1000 psi / 70 bar)					
P/N	Pressure Range (psi)	Pressure Range (bar)	Media	Accuracy %FS ⁽¹⁾	Burst Pressure
CP15	±15	±1	Gas, Liquid	0.05 (0.1; 0.25)	3x
CP30	-15 to 30	-1,0 to 2,0	Gas, Liquid	0.05 (0.1; 0.25)	3x

⁽¹⁾ FS specification applies to the span of the range

Gauge pressure					
(Sealed Gauge pressure for above 1000 psi / 70 bar)					
P/N	Pressure range (psi)	Pressure range (bar)	Media	Accuracy %FS ⁽¹⁾	Burst Pressure
V15	-15	-1,0	Gas	0.05 (0.1; 0.25)	3x
GP15	15	1,0	Gas, Liquid	0.05 (0.1; 0.25)	3x
GP30	30	2,0	Gas, Liquid	0.05 (0.1; 0.25)	3x
GP100	100	7,0	Gas, Liquid	0.05 (0.1; 0.25)	3x
GP150	150	10	Gas, Liquid	0.05 (0.1; 0.25)	3x
GP300	300	20	Gas, Liquid	0.05 (0.1; 0.25)	3x
GP500	500	35	Gas, Liquid	0.05 (0.1; 0.25)	3x
GP1K	1000	70	Gas, Liquid	0.05 (0.1; 0.25)	3x
GP1.5K	1500	100	Gas, Liquid	0.05 (0.1; 0.25)	3x
GP3K	3000	200	Gas, Liquid	0.05 (0.1; 0.25)	3x
GP5K	5000	350	Gas, Liquid	0.05 (0.1; 0.25)	3x
GP10K	10000	700	Gas, Liquid	0.05 (0.1; 0.25)	3x
GP15K	15000	1000	Gas, Liquid	0.05 (0.1; 0.25)	2x
GP20K	20000	1400	Gas, Liquid	0.05 (0.1; 0.25)	1.5x
GP25K	25000	1600	Gas, Liquid	0.05 (0.1; 0.25)	1.5x
GP30K	30000	2000	Gas, Liquid	0.05 (0.1; 0.25)	1.5x
GP36K	36000	2500	Gas, Liquid	0.05 (0.1; 0.25)	1.5x
GP40K	40000	2800	Gas, Liquid	0.05 (0.1; 0.25)	1.35x
GP50K	50000	3500	Gas, Liquid	0.1 (0.25)	1.2x
GP60K	60000	4200	Gas, Liquid	0.1 (0.25)	1.1x

⁽¹⁾ FS specification applies to the span of the range

Accessories included

- ADT 680
- AA battery (2 pcs)
- Manual
- ISO17025 accredited calibration certificate
- Rubber boot for Additel 680 gauge (product number 9252)
- Additel/Land Wireless Software for ADT680 – included USB dongle (free download at www.additel.com)

Optional Accessories

9502	Additel/Log II Wireless 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 O2 cleaning
Note	For O2 applications contact europascal

Additel Pressure Gauge Selection Guide

Feature Series	ADT672 Series Digital Pressure Calibrator			ADT681 Series Digital Pressure Gauge		ADT680 Series Digital Pressure Gauge
Gauge Pressure	•			•		•
Compound Pressure	•			•		•
Absolute Pressure	•			•		
Differential Pressure	•			•		
Accuracy Classes	0.02% & 0.05%FS 15K & psi: 0.05%FS >20K psi: 0.1%FS			0.02%, 0.05%, & 0.2%FS & 0.1%RD 15K & 20K psi: 0.05%, 0.1%, 0.2%FS & 0.1%RD >20K psi: 0.1% & 0.2%FS		0.05%, 0.1%, & 0.25%FS >20K psi: 0.1% & 0.25%FS
Digital Display	•			•		•
Analog Display (Fan-Shaped Indication)				•		
Fully Temperature Compensation from -10 C to 50 C	•			•		•
Resolution						
6-Digit Resolution	•					
5-Digit Resolution	•			•		•
Selectable Pressure Units	11			11		19
Backlight	•			•		•
Over Pressure Indication	•			•		•
IS Certification (optional – not available for panel mount)				ADT681IS only (≤GP15)		
IP67 Certification						•
Panel Mount (optional)				•		
Wireless						680W only
Data Logging	•			Optional		680W only
Min/Max	•			•		•
Built-in Leak Test	•					
HART Communication	•					
Measure mA and V	•					
24V Loop Power	•					
Switch Test	•					
NIST-Traceable Certificate of Calibration	•			•		•
Power	Rechargeable battery			9V battery (120/220V adapter is optional)		2AA batteries
Series Pressure	Pressure Range			ADT672 Series Digital Pressure Calibrator	ADT681 Series Digital Pressure Gauge	ADT680 Series Digital Pressure Gauge
	psi	bar	Media			
Gauge						
V15	-15 to 0	-1 to 0	G	•	•	•
GP5	0 to 5	0 to 0.35	G,L	•	•	

Series Pressure	psi	bar	Media	ADT672 Series Digital Pressure Calibrator	ADT681 Series Digital Pressure Gauge	ADT680 Series Digital Pressure Gauge
GP10	0 to 10	0 to 0.7	G,L	●	●	
GP15	0 to 15	0 to 1	G,L	●	●	●
GP30	0 to 30	0 to 2	G,L	●	●	●
GP50	0 to 50	0 to 3.5	G,L	●	●	
GP100	0 to 100	0 to 7	G,L	●	●	●
GP150	0 to 150	0 to 10	G,L	●	●	●
GP300	0 to 300	0 to 20	G,L	●	●	●
GP500	0 to 500	0 to 35	G,L	●	●	●
GP600	0 to 600	0 to 40	G,L	●	●	
GP1K	0 to 1K	0 to 70	G,L	●	●	●
GP2K	0 to 2K	0 to 140	G,L	●	●	
GP3K	0 to 3K	0 to 200	G,L	●	●	●
GP5K	0 to 5K	0 to 350	G,L	●	●	●
GP10K	0 to 10K	0 to 700	G,L	●	●	●
GP15K	0 to 15K	0 to 1K	G,L	●	●	●
GP20K	0 to 20K	0 to 1.4K	G,L	●	●	●
GP25K	0 to 25K	0 to 1.6K	G,L	●	●	●
GP30K	0 to 30K	0 to 2K	G,L	●	●	●
GP36K	0 to 36K	0 to 2.5K	G,L	●	●	●
GP40K	0 to 40K	0 to 2.8K	G,L	●	●	●
GP50K	0 to 50K	0 to 3.5K	G,L	●	●	●
GP60K	0 to 60K	0 to 4.2K	G,L	●	●	●
Compound						
CP2	±2	±0.16	G	●	●	
CP5	±5	±0.35	G	●	●	
CP10	±10	±0.7	G	●	●	
CP15	±15	±1	G	●	●	●
CP30	-15 to 30	-1 to 2	G	●	●	●
CP100	-15 to 100	17 to 7	G,L	●	●	
CP300	-15 to 300	-1 to 20	G,L	●	●	
Absolute						
AP5	5	0.35	G	●	●	
AP10	10	0.7	G	●	●	
AP15	15	1	G	●	●	
AP30	30	2	G	●	●	
AP50	50	3.5	G	●	●	
AP100	100	7	G,L	●	●	
AP300	300	20	G,L	●	●	
AP500	500	35	G,L	●	●	
AP1K	1K	70	G,L	●	●	
AP3K	3K	200	G,L	●	●	
AP5K	5K	350	G,L	●	●	
Differential	inH ² O	mbar				
DP1	±1	±2.5	G	●	●	
DP2	±2	±5	G	●	●	
DP5	±5	±10	G	●	●	
DP10	±10	±25	G	●	●	
DP20	±20	±50	G	●	●	
DP30	±30	±75	G	●	●	
DP50	±50	±160	G	●	●	
DP150	±150	±350	G	●	●	
DP300	±300	±700	G	●	●	

Your Note

A series of horizontal dashed lines for taking notes.