

ADT 685 Digital Pressure Gauges



- Pressure ranges up to 60,000 psi (4,200 bar)
- 0.02%, 0.05%FS or 0.1%RD accuracy
- Fully temperature compensated accuracy
- Every model measures Gauge or Absolute Pressure
- Built-in Barometer
- Touchscreen display
- Intrinsically safe version 685Ex (optional)
- Bluetooth and USB communications
- Data logging (optional)
- IP67 rated
- Communicates with Additel's Link Mobile App
- ISO 17025-accredited calibration

Overview

Looking for the most advanced, best performing and modern digital pressure gauge on the market? Congratulations, you've just found it! Additel's ADT685 digital pressure gauges are in a class of their own with an amazingly easy to use and read touchscreen display. The all new modern menu structure and control interface bring a new and refreshing experience to gauge work. This completely new way of interfacing with our gauges makes the ADT685 gauges a real pleasure to use. With microprocessor technology, state-of-the-art silicon pressure sensors and plenty of on board storage capacity, these attractive and fully temperature compensated gauges will provide the performance, durability and reliability you've come to expect from genuine Additel products. To provide support for intrinsically safe needs, the ADT685Ex comes ready to provide pressure measurements and recordings in the most demanding of environments. Each Additel 685 is also IP67 rated to protect your investment in dusty and/or wet environments.

A Modern User Experience:

Additel has gone above and beyond to provide our customers with the best possible experience when using these new and revolutionary gauge. The 3.4 inch touchscreen display comes with a protective replaceable tempered glass screen and is a refreshing update to the traditional push button or blister pad interface. With an easy to navigate menu structure and fast touchscreen response, you will find these ADT685 gauges simple yet powerful to use. The easy to read display isn't just fun to use, but it's built rugged to handle the demands of a busy technician in the field or the laboratory.



Every model measures Gauge or Absolute Pressure:

The Additel 685 Digital Pressure Gauges contain a built-in barometer sensor which allows for the pressure reading to display in gauge pressure or absolute pressure with a simple menu selection. The built-in barometer is calibrated and certified to an accuracy of 50 Pa. With this unique feature, the ADT685 can be a solution for three common applications: gauge pressure measurement, absolute pressure measurement, and barometric or atmosphere pressure measurement. Having an Additel as your gauge will always give you the ability to do more with one instrument!



Datalogging Option:

We've added the option to do stand-alone data logging with the ADT685. Now you can record more than 10M records internal to the 685 series. Each record includes date, time, pressure and temperature readings. Download the logged data with our free Additel/Land software or you can purchase our Additel/Log II for real-time logging and data analysis. Additel's 685 digital pressure gauges are unmatched in performance and reliability. You get nothing but the best when you buy Additel Products!



Pressure Ranges

Gauge Pressure ⁽¹⁾						
P/N	Pressure range		Medium ⁽²⁾	Accuracy		Burst Pressure
	psi	bar		% FS	% RD	
V15	-15	-1.0	G	0.02 (0.05)	N/A	3x
GP2	2	0.16	G	0.05	N/A	3x
GP5	5	0.35	G	0.05	0.1	3x
GP10	10	0.7	G / L ⁽³⁾	0.02 (0.05)	0.1	3x
GP15	15	1.0	G / L ⁽³⁾	0.02 (0.05)	0.1	3x
GP30	30	2.0	G / L	0.02 (0.05)	0.1	3x
GP50	50	3.5	G / L	0.02 (0.05)	0.1	3x
GP100	100	7.0	G / L	0.02 (0.05)	0.1	3x
GP150	150	10	G / L	0.02 (0.05)	0.1	3x
GP300	300	20	G / L	0.02 (0.05)	0.1	3x
GP500	500	35	G / L	0.02 (0.05)	0.1	3x
GP600	600	40	G / L	0.02 (0.05)	0.1	3x
GP1K	1000	70	G / L	0.02 (0.05)	0.1	3x
GP1.5K	1,500	100	G / L	0.02 (0.05)	0.1	3x
GP2K	2,000	140	G / L	0.02 (0.05)	0.1	3x
GP3K	3,000	200	G / L	0.02 (0.05)	0.1	3x
GP5K	5,000	350	G / L	0.02 (0.05)	0.1	3x
GP10K	10,000	700	G / L	0.02 (0.05)	0.1	1.5x
GP15K	15,000	1,000	G / L	0.05 (0.1)	0.1	1.5x
GP20K	20,000	1,400	G / L	0.05 (0.1)	N/A	1.5x
GP25K	25,000	1,600	G / L	0.05 (0.1)	N/A	1.5x
GP30K	30,000	2,000	G / L	0.05 (0.1)	N/A	1.5x
GP36K	36,000	2,500	G / L	0.05 (0.1)	N/A	1.5x
GP40K	40,000	2,800	G / L	0.05 (0.1)	N/A	1.35x
GP50K	50,000	3,500	G / L	0.1 (0.2)	N/A	1.2x
GP60K	60,000	4,200	G / L	0.1 (0.2)	N/A	1.1x

(1) Sealed gauge pressure for above 1,000 psi

(2) G=Gas, L=Liquid

(3) 0.02% FS only for gas devices

Barometric Pressure					
P/N	Pressure Range		Media	Accuracy	Burst Pressure
	Low	High			
BP	60 kPa	110kPa	Gas	55 Pa	3x



Pressure Ranges

Compound Pressure						
P/N	Pressure range		Media	Accuracy		Burst Pressure
	psi	bar		% FS	% RD	
CP2	±2	±0.16	Gas	0.05	N/A	3x
CP5	±5	±0.35	Gas	0.02 (0.05)	0.1	3x
CP10	±10	±0.7	Gas	0.02 (0.05)	0.1	3x
CP15	±15	±1	Gas	0.02 (0.05)	0.1	3x
CP30	-15 to 30	-1 to 2	Gas	0.02 (0.05)	0.1	3x
CP100	-15 to 100	-1 to 7	Gas / Liquid	0.02 (0.05)	0.1	3x
CP150	-15 to 150	-1 to 10	Gas / Liquid	0.02 (0.05)	0.1	3x
CP300	-15 to 300	-1 to 20	Gas / Liquid	0.02 (0.05)	0.1	3x
CP500	-15 to 500	-1 to 35	Gas / Liquid	0.02 (0.05)	N/A	3x
CP600	-15 to 600	-1 to 40	Gas / Liquid	0.02 (0.05)	N/A	3x
CP1K	-15 to 1000	-1 to 70	Gas / Liquid	0.02 (0.05)	N/A	3x

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

Differential Pressure						
P/N	Pressure range		Media	Accuracy (% FS) ⁽¹⁾	Burst Pressure	Static Pressure Range
	inH2O	mbar				
DP1	±1	±2.5	Gas	0.05 ⁽²⁾	100x	±10 psi
DP2	±2	±5.0	Gas	0.05 ⁽²⁾	100x	±10 psi
DP5	±5	±10	Gas	0.05 ⁽²⁾	50x	±10 psi
DP10	±10	±25	Gas	0.05 ⁽²⁾	20x	±10 psi
DP20	±20	±50	Gas	0.05	20x	±10 psi
DP30	±30	±75	Gas	0.05	20x	±10 psi
DP50	±50	±125	Gas	0.05	3x	±10 psi
DP100	±100	±250	Gas	0.02	3x	±15 psi
DP150	±150	±350	Gas	0.02	3x	50 psi
DP300	±300	±700	Gas	0.02	3x	50 psi

(1) FS specification applies to the span of the range: Accuracy includes one year stability.

(2) 0.05%FS accuracy (incl. 6 months stability). One year accuracy is 0.05% FS calibration accuracy combined with 0.05% FS one year stability.



Communication Types Supported				
Model	ADT685	ADT685Ex	ADT686	ADT673
Comm				
RS232	○	○	○	○
RS485	○			
WiFi			○	○
USB	●	●	●	●
Bluetooth (BLE)	●	●	●	●

○ Optional ● Included

Additel Software Compatibility Matrix								
Model	ADT685/ADT685Ex				ADT686/ADT673			
	ACal	LogII	Land	Link	ACal	LogII	Land	Link
Comm								
RS232	●	●	●		●	●	●	
RS485 only for ADT685	■ [2]	■ [2]	■ [2]					
WiFi					●	●	●	● [1]
USB	●	●	●		●	●	●	
Bluetooth (BLE)				●				●

● supported

■ Non Ex models only

[1] This configuration requires that the device is connected to ACloud via WiFi to utilize the Additel Link app

[2] 4-20mA output and RS-485 not available in ADT685Ex models

Accessories included

Rubber boot
AA alkaline battery (3 pcs)
USB cable type-C (1 pc)
Battery cover removal tool (1 pc)
RS-485 Adapter (for RS-485 models only)
4-20mA cable (for 20MA models only)
RS-232 Ex adapter (for EX RS-232 models only)
Silicone tube - 1 meter each (2 pcs for DP models only)
ISO 17025 Accredited Calibration Certificate (DAkkS on demand)

Optional Accessories

Model number	Description
9903	Carrying case for (1) digital pressure gauge
9040	Hanging strap with magnet
9810	110V/220V external power adapter (DC 5V)
9502	Additel/Log II real time data logging and graphical software
9530-Basic	Additel/Acal Automated calibration software with asset management, basic version
9530-Net	Additel/Acal Automated calibration software with asset management, network version, includes server installation and 1 user license
9050	USB to RS232 (DB9/M) Adapter
9050-EXT	RS232 (DB9/M) extension cable, 9 feet
9260	Screen protector kit
9257	Field rain cover

ADT 685 02 GP300 PSI N DL 232

Accuracy:

02 - 0.02% of full span
 05 - 0.05% of full span
 10 - 0.1% of full span
 20 - 0.2% of full span
 RD - 0.1% of reading

**Pressure range
 P/N:**
 See pressure
 range table

Range type:

PSI - Range in psi
 BAR - Range in bar
 H₂O - Range by inH₂O

Pressure port type:

N -1/4 NPT male
 N2 -1/2NPT male
 B -1/4 BSP male
 B2 -1/2 BSP male
 M-M20x1.5 male
 AF -Autoclave F-250-C female
 AM -Autoclave M-250-C male

DL-Data logging

Comm port (optional)

232 = RS – 232
 485 = RS – 485
 (excl. ADT685Ex)
 20MA = 4-20 mA
 (excl. ADT685Ex)

