

# Additel 783

## Pressure Controller



- Pressure ranges from -14.35 psi (-0.99 bar) to 6000 psi (420 bar)
- Two removable internal pressure modules with multi-range selection
- 0.02%FS, 0.01%FS, and 0.01%RD accuracy
- Control stability of 0.003%FS
- Ultra-High speed pressure control
- Absolute & Gauge Pressure
- LAN, USB, RS232, and Ethernet communication
- Large 7" color touch screen display
- Optional barometric pressure module
- Easy-to-use icon driven interface
- I/O alarm
- Emulation mode



### OVERVIEW

These modular pressure controllers combine cutting-edge control/measurement technology, modular design, and user-friendly features. The Additel 783 controller series is optimized for speed without compromising accuracy and stability. For users who require automated production, test, and calibration, Additel has the workload covered with this pressure controller. The ADT783 can quickly be outfitted with two controlling modules and one reference barometric module to cover a wide pressure range. The Additel 783 series offers three base units to choose from, which range from 6000 psi (420 bar) down to low pressure differential.

### ADT783-D

The ADT783-D is designed for differential and gauge pressure calibration to as low as  $\pm 10$  inH<sub>2</sub>O ( $\pm 25$  mbar) up to 36 psi (2.5 bar). Select between one or two pressure control modules. Each module comes with a dual-range calibration, expanding measurement accuracy within each module. This unit has a control stability of 0.003%FS. In addition to the two control modules, an optional barometric module can be added which allows for gauge and absolute measurements.



### ADT783-1K

The ADT783-1K is designed for gauge pressure calibration from -14.35 (-0.99 bar) up to 1000 psi (70 bar). Select between one or two pressure control modules. Each module comes with a dual-range calibration, expanding measurement accuracy within each module. This unit has a control stability of 0.003%FS. In addition to the two control modules and optional barometric module can be added which allows for gauge and absolute measurements.



### ADT783-3.6K / 6K

The ADT783-3.6K / 6K is designed for gauge pressure calibration from -14.35 (-0.99 bar) up to 6000 psi (420 bar). Select between one or two pressure control modules. Each module comes with a dual-range calibration, expanding measurement accuracy within each module. This unit has a control stability of 0.003%FS. In addition to the two control modules and optional barometric module can be added which allows for gauge and absolute measurements.



### Quick Change Pressure Modules (30 seconds)

Additel's 151 pressure control modules can be installed or replaced within 30 seconds or less. The upper edge of the cabin is simple to open. As the door opens, the controller will automatically release pressure, providing the safe removal and installation of the ADT151 modules. Additel offers various different pressure ranges for the ADT783 controller by utilizing these easy to swap pressure modules. Select from the module ranges listed on page 5 and page 6.

### Plug-and-Play 9065 Precision Electrical Measurement Module

When controllers are used for pressure transmitter calibration, they often need to be equipped with electrical measurement devices and a 24V power supply. The higher the accuracy level of the transmitter, the higher the level of electrical measurement equipment required to meet a 3:1 or 4:1 uncertainty transfer. This often brings significant complexity and cost to the system for users. The 9065 precision electrical measurement module supports current and voltage measurements (7.5-digit measurement level) and comes with a 24V power supply. It connects to ADT783 controller via USB, offering a plug-and-play solution with the highest cost-effectiveness.



## Convenient Automatic Calibration of Internal Pressure Control Module

Within production environments, higher frequency of calibration and comparison of the pressure control module is important and helps to provide confidence. The ADT783 can be connected with an external high-precision pressure module, which can be used to achieve regular comparison of the internal pressure control module, and can also be used to perform automated calibration of the internal pressure control module.



## Modular Design, Easy Maintenance

The ADT783 adopts a variety of easy maintenance design features, which allows users to quickly change the rear mounted pressure control module, quickly change the pressure control and valve components, quickly clean the solenoid valve, and provides fine filtration of pollution particles.



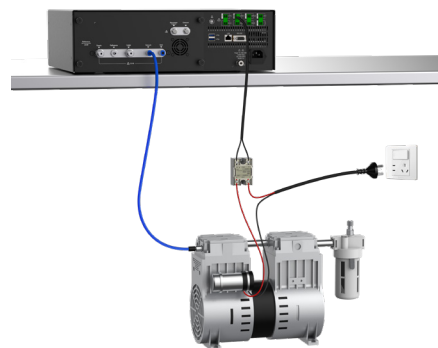
## 20% Pressure Step within 10 Seconds

In the process of efficient and fast-paced production line testing, verification and calibration, users have strict requirements on the speed of pressure controllers. The ADT783 adopts professional control technology to effectively improve control rate and stability: control response time (typical)  $\leq 10$  Seconds, control stability (typical)  $\leq \pm(0.001\sim 0.003)\%$ FS, see specifications for more details.



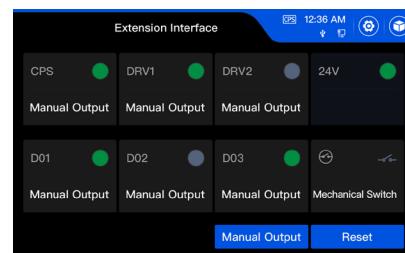
## Automated Vacuum Pump Feature Designed to Extend External Vacuum Pump Life

The ADT783 incorporates built-in automated valving and I/O port for automated control of a vacuum pump. When controlling down to a small pressure above the atmospheric pressure point, the ADT783 can control at those pressures without activating a vacuum pump. When controlling negative/vacuum pressures, there is no need to utilize an external vacuum pump or protection components. A solid-state relay can be connected to the power supply line of the vacuum pump to realize fully automatic vacuum pump start-stop control, greatly extending the life of the vacuum pump.



## Volt Free Contacts

The ADT783 built-in 3-way solenoid valve drive can directly control the external isolation valve without an external power supply. Multiple isolation valve combination applications greatly enhances the flexibility of the test system. Three non-contact relay outputs can be used to realize the alarm output of the device, and can also be used to trigger external devices.



## Pressure Specifications

Model	ADT783-D	ADT783-1K	ADT783-3.6K	ADT783-6K
<b>Specification</b>				
<b>Max Pressure Range</b>	35 psi (2.5 bar)	1000 psi (70 bar)	3600 psi (250 bar)	6000 psi (420 bar)
<b>Min Pressure Range<sup>[1]</sup></b>	-14.35 psi (-0.99 bar)	-14.35 psi (-0.99 bar)	-14.35 psi (-0.99 bar)	-14.35 psi (-0.99 bar)
<b>Precision<sup>[2]</sup></b>	0.015%FS (DP2-DP5) 0.025%FS (DP10-DP1K)	0.01%FS or 0.007%FS or 0.008%RD	0.01%FS or 0.007%FS or 0.008%RD	0.01%FS or 0.007%FS or 0.008%RD
<b>Accuracy<sup>[3]</sup></b>	0.05%FS (DP2-DP5) 0.02%FS (DP10-DP1K)	0.02%FS or 0.01%FS or 0.01%RD	0.02%FS or 0.01%FS or 0.01%RD	0.02%FS or 0.01%FS or 0.01%RD
<b>Control Stability<sup>[4]</sup></b>	< 0.003%FS, typically 0.001%FS	< 0.003%FS, typically 0.001%FS	< 0.003% FS, typically 0.001%FS	< 0.003% FS, typically 0.001%FS
<b>Control Response Time</b>	< 10 Seconds <sup>[5]</sup>	< 10 Seconds <sup>[5]</sup>	< 10 Seconds <sup>[5]</sup>	< 20 Seconds <sup>[6]</sup>
<b>Pressure Type</b>	Differential	Gauge	Gauge	Gauge
<b>Gauge and Absolute Pressure Switchable<sup>[7]</sup></b>	Optional	Optional	Optional	Optional
<b>Interchangeable Pressure Module Bays</b>	2	2	2	2
<b>Max Pressure Control Range of Internal Module</b>	-15 to 36 psi (-1 to 2.5 bar)	-15 to 1000 psi (-1 to 70 bar)	-15 to 3600 psi (-1 to 250 bar)	-15 to 6000 psi (-1 to 420 bar)
<b>Min Pressure Control Range of Internal Module</b>	±10 inH2O (±25 mbar)	±10 psi (±0.7 bar)	-15 psi to 150 psi (-1~10 bar)	-15 psi to 150 psi (-1~10 bar)
<b>Maximum High-low Range Ratio</b>	NA	20:1	NA	40:1
<b>Range Switching Mode</b>	Fixed or Auto	Fixed or Auto	Fixed or Auto	Fixed or Auto
<b>Supply Source<sup>[8]</sup></b>	External air source	External air source	External air source	External air source
<b>Maximum Supply Pressure<sup>[9]</sup></b>	4 bar	80 bar	280 bar	440 bar
<b>Control Mode</b>	Fast, standard, custom	Fast, standard, custom	Fast, standard, custom	Fast, standard, custom
<b>Maximum Overshoot</b>	< 1%FS	< 1%FS	< 1%FS	< 1%FS
<b>Maximum Load Volume</b>	1000 mL	1000 mL	1000 mL	1000 mL
<b>Contamination Prevention System (CPS)</b>	Optional	Optional	Optional	Optional
<b>Pressure Port</b>	6 mm Festo	1/4 BSP M	1/4 BSP M	1/4 BSP M
<b>Air Source Port Safe Pressure Limit<sup>[10]</sup></b>	Air source port: 10 bar Vacuum source port: 5 bar	Air source port: 140 bar Vacuum source port: 5 bar	Air source port: 300 bar Vacuum source port: 5 bar	Air source port: 500 bar Vacuum source port: 5 bar
<b>Port Filter<sup>[11]</sup></b>	Support	Support	Support	Support

[1] The minimum negative pressure limit is given based on the atmospheric pressure value of 1bar.

[2] Precision: the error components include linearity, hysteresis, repeatability, resolution, and temperature compensation.

[3] Accuracy: the error components include linearity, hysteresis, repeatability, resolution, reference standard measurement uncertainty, annual drift, temperature compensation, K=2.

[4] In order to achieve 0.001% FS control stability, some additional stabilization time at the desired pressure may be needed depending on the configuration and pressure level.

[5] The air pressure is tested under an external load volume 50 ml, 20% step, and the time to reach 0.005%FS stability, for 0.001%FS stability, needing more time.

[6] The air pressure is tested under an external load volume 50 ml, 10% step, and the time to reach 0.005%FS stability, for 0.001%FS stability, needing more time.

[7] After the reference atmospheric pressure module is installed, users can select gauge or absolute pressure.

[8] Gas refers to clean and dry nitrogen or air.

[9] In order to achieve the best control effect, the air source pressure should be adjusted to about 110% of the maximum range of the internal pressure control module or 1bar, whichever is greater.

[10] In order to prevent the inlet pressure of the air source from exceeding the safety limit, it is recommended to install a suitable pressure safety valve at the outlet of the air source.

[11] All pressure ports are installed with 40-100 µm filters.

## Specifications for ADT783 Pressure Modules

The following tables provide information regarding our ADT151 modular pressure sensors that are designed to easily mount in the front bays of the ADT783 Pressure controller. Our differential pressure (DP) and compound pressure (CP) module accuracy specifications include linearity, hysteresis, repeatability, temperature compensation and annual drift, precision specifications include linearity, hysteresis, repeatability, resolution, and temperature compensation. Both the DP and CP style gauges can be zeroed by the controller from time to time to mitigate the effect of zero drift. The specifications are valid from -10°C–50°C. We recommend that these pressure models be calibration annually.

Standard Compound Gauge Pressure Module for ADT783-1K / 3.6K / 6K						
Model	Compound Gauge pressure		Media	Precision <sup>[2]</sup> (%FS)	Accuracy <sup>[3][4]</sup> (% FS)	Suggested Controller Compatibility
	1st range <sup>[1]</sup>	2nd range				
ADT151-XX-CP6K	(-15~6000) psi / (-1~420) bar	(-15~3000) psi / (-1~200) bar	G,L	0.004 (0.007)	0.01 (0.02)	ADT783-6K only
ADT151-XX-CP5K	(-15~5000) psi / (-1~350) bar	(-15~3000) psi / (-1~200) bar	G,L	0.004 (0.007)	0.01 (0.02)	ADT783-6K only
ADT151-XX-CP3.6K	(-15~3600) psi / (-1~250) bar	(-15~1500) psi / (-1~100) bar	G,L	0.004 (0.007)	0.01 (0.02)	ADT783-3.6K / 6K
ADT151-XX-CP3K	(-15~3000) psi / (-1~200) bar	(-15~1500)psi / (-1~100) bar	G,L	0.004 (0.007)	0.01 (0.02)	ADT783-3.6K / 6K
ADT151-XX-CP2K	(-15~2000) psi / (-1~140) bar	(-15~1000) psi / (-1~70) bar	G,L	0.004 (0.007)	0.01 (0.02)	ADT783-3.6K / 6K
ADT151-XX-CP1K	(-15~1000) psi / (-1~70) bar	(-15~500) psi / (-1~35) bar	G,L	0.004 (0.007)	0.01 (0.02)	All
ADT151-XX-CP500	(-15~500) psi / (-1~35) bar	(-15~300) psi / (-1~20) bar	G,L	0.004 (0.007)	0.01 (0.02)	All
ADT151-XX-CP300	(-15~300) psi / (-1~20) bar	(-15~150) psi / (-1~10) bar	G,L	0.004 (0.007)	0.01 (0.02)	All
ADT151-XX-CP150	(-15~150) psi / (-1~10) bar	(-15~60) psi / (-1~4) bar	G,L	0.004 (0.007)	0.01 (0.02)	All
ADT151-XX-CP100	(-15~100) psi / (-1~7) bar	(-15~50) psi / (-1~3.5) bar	G,L	0.004 (0.007)	0.01 (0.02)	ADT783-1K only
ADT151-XX-CP50	(-15~50) psi / (-1~3.5) bar	(-15~30) psi / (-1~2) bar	G,L	0.004 (0.007)	0.01 (0.02)	ADT783-1K only
ADT151-XX-CP35	(-15~35) psi / (-1~2.5) bar	(-15~15) psi / (-1~1) bar	G,L	0.004 (0.007)	0.01 (0.02)	ADT783-1K only
ADT151-XX-CP30	(-15~30) psi / (-1~2) bar	(-15~15) psi / (-1~1) bar	G,L	0.004 (0.007)	0.01 (0.02)	ADT783-1K only
ADT151-XX-CP15	(-15~15) psi / (-1~1) bar	(-10~10) psi / (-0.7~0.7) bar	G,L	0.004 (0.007)	0.01 (0.02)	ADT783-1K only

[1] The overload pressure of all pressure modules is 110%FS, and the burst pressure is 200%FS, the burst pressure of CP150 is 130%FS.

[2] Precision: the error components include linearity, hysteresis, repeatability, resolution, and temperature compensation.

[3] FS specification applies to the span of the range.

[4] Accuracy: the error components include linearity, hysteresis, repeatability, resolution, reference standard measurement uncertainty, annual drift, temperature compensation, K=2.

[5] Sealed gauge pressure for CP2K,CP3K,CP3.6K,CP6K.

Differential Pressure Module for ADT783-D						
Model	Differential Pressure		Measurement Type	Media	Precision <sup>[2],[3]</sup> (%FS)	Accuracy <sup>[4]</sup> (% FS)
	1st range <sup>[1]</sup>	2nd range				
ADT151-XX-DP1K	(-400~1000) inH2O (-1000~2500) mbar	(-400~400) inH2O (-1000~1000) mbar	DP	G	0.015	0.02
ADT151-XX-DP800	(-400~800) inH2O (-1000~2000) mbar	(-400~400) inH2O (-1000~1000) mbar	DP	G	0.015	0.02
ADT151-XX-DP400	(-400~400) inH2O (-1000~1000) mbar	(-200~200) inH2O (-500~500) mbar	DP	G	0.015	0.02
ADT151-XX-DP300	(-300~300) inH2O (-700~700) mbar	(-150~150) inH2O (-350~350) mbar	DP	G	0.015	0.02
ADT151-XX-DP200	(-200~200) inH2O (-500~500) mbar	(-100~100) inH2O (-250~250) mbar	DP	G	0.015	0.02
ADT151-XX-DP150	(-150~150) inH2O (-350~350) mbar	(-100~100) inH2O (-250~250) mbar	DP	G	0.015	0.02
ADT151-XX-DP100	(-100~100) inH2O (-250~250) mbar	(-50~50) inH2O (-125~125) mbar	DP	G	0.015	0.02
ADT151-XX-DP50	(-50~50) inH2O (-125~125) mbar	(-30~30) inH2O (-75~75) mbar	DP	G	0.015	0.02
ADT151-XX-DP30	(-30~30) inH2O (-75~75) mbar	(-20~20) inH2O (-50~50) mbar	DP	G	0.015	0.02
ADT151-XX-DP20 <sup>[5]</sup>	(-20~20) inH2O (-50~50) mbar	(-10~10) inH2O (-25~25) mbar	DP	G	0.015	0.02

[1] The overload pressure of all pressure modules is 150%FS, and the burst pressure of modules: DP20:100mbar, DP100 / DP50 / DP30:1000mbar, DP400 / DP300 / DP200 / DP150: 4000 mbar, DP800 / DP1000:10000 mbar.

[2] FS specification applies to the span of the range.

[3] Precision: the error components include linearity, hysteresis, repeatability, resolution, and temperature compensation.

[4] Accuracy: the error components include linearity, hysteresis, repeatability, resolution, reference standard measurement uncertainty, annual drift, temperature compensation, K=2.

[5] Recommended calibration period 180 days.

## BAROMETRIC MEASUREMENT SPECIFICATIONS

Model <sup>[1]</sup>	Absolute Pressure Range	Accuracy
ADT151-BP	(60~110) kPa	±22 Pa
ADT151-BPH	(60~110) kPa	±10 Pa

[1] A barometric pressure module is optional. After inserting the barometric pressure module, the controller can be toggled to and from gauge and absolute pressure units.

**High-precision Compound Gauge Pressure Module Specification for ADT783-1K / 3.6K / 6K**

Model	Gauge pressure range <sup>[1]</sup>	Absolute Pressure Range <sup>[2]</sup>	Media	Precision <sup>[3][4]</sup>	Accuracy <sup>[5][6]</sup>	Suggested Contoller Compatibility
ADT151-01RD-CP6KM	(-15~6000) psi (-1~420) bar	(0~6015) psi (0~421) bar	G,L	0.008% rdg or 0.004% FS whichever is greater	0.01% rdg or 0.005% FS whichever is greater	ADT783-6K only
ADT151-01RD-CP5KM	(-15~5000) psi (-1~350) bar	(0~5015) psi (0~351) bar	G,L	0.008% rdg or 0.004% FS whichever is greater	0.01% rdg or 0.005% FS whichever is greater	ADT783-6K only
ADT151-01RD-CP3.6KM	(-15~3600) psi (-1~250) bar	(0~3615) psi (0~251) bar	G,L	0.008% rdg or 0.004% FS whichever is greater	0.01% rdg or 0.005% FS whichever is greater	ADT783-3.6K / 6K
ADT151-01RD-CP3KM	(-15~3000) psi (-1~200) bar	(0~3015) psi (0~201) bar	G,L	0.008% rdg or 0.004% FS whichever is greater	0.01% rdg or 0.005% FS whichever is greater	ADT783-3.6K / 6K
ADT151-01RD-CP2KM	(-15~2000) psi (-1~140) bar	(0~2015) psi (0~141) bar	G,L	0.008% rdg or 0.004% FS whichever is greater	0.01% rdg or 0.005% FS whichever is greater	ADT783-3.6K / 6K
ADT151-01RD-CP1.5KM	(-15~1500) psi (-1~100) bar	(0~1515) psi (0~101) bar	G,L	0.008% rdg or 0.004% FS whichever is greater	0.01% rdg or 0.005% FS whichever is greater	ADT783-3.6K / 6K
ADT151-01RD-CP1KM	(-15~1000) psi (-1~70) bar	(0~1015) psi (0~71) bar	G,L	0.008% rdg or 0.004% FS whichever is greater	0.01% rdg or 0.005% FS whichever is greater	All
ADT151-01RD-CP500M	(-15~500) psi (-1~35) bar	(0~515) psi (0~36) bar	G,L	0.008% rdg or 0.004% FS whichever is greater	0.01% rdg or 0.005% FS whichever is greater	All
ADT151-01RD-CP300M	(-15~300) psi (-1~20) bar	(0~315) psi (0~21) bar	G,L	0.008% rdg or 0.004% FS whichever is greater	0.01% rdg or 0.005% FS whichever is greater	All
ADT151-01RD-CP150M	(-15~150) psi (-1~10) bar	(0~165) psi (0~11) bar	G,L	0.008% rdg or 0.004% FS whichever is greater	0.01% rdg or 0.005% FS whichever is greater	All
ADT151-01RD-CP100M	(-15~100) psi (-1~7) bar	(0~115) psi (0~8) bar	G,L	0.008% rdg or 0.004% FS whichever is greater	0.01% rdg or 0.005% FS whichever is greater	ADT783-1K only
ADT151-01RD-CP50M	(-15~50) psi (-1~3.5) bar	(0~65) psi (0~4.5) bar	G,L	0.008% rdg or 0.004% FS whichever is greater	0.01% rdg or 0.005% FS whichever is greater	ADT783-1K only
ADT151-01RD-CP35M	(-15~35) psi (-1~2.5) bar	(0~50) psi (0~3.5) bar	G,L	0.008% rdg or 0.004% FS whichever is greater	0.01% rdg or 0.005% FS whichever is greater	ADT783-1K only
ADT151-01RD-CP30M	(-15~30) psi (-1~2) bar	(0~45) psi (0~3) bar	G,L	0.008% rdg or 0.004% FS whichever is greater	0.01% rdg or 0.005% FS whichever is greater	ADT783-1K only

[1] The overload pressure of all pressure modules is 110%FS, and the burst pressure is 200%FS, the burst pressure of CP150M is 130%FS.

[2] Absolute pressure is achieved through the synthesis of the basic gauge pressure module and the optional atmospheric pressure module.

[3] FS refers to the positive range, and the accuracy of the negative pressure part is equal to that of the positive pressure part.

[4] Precision: the error components include linearity, hysteresis, repeatability, resolution, and temperature compensation.

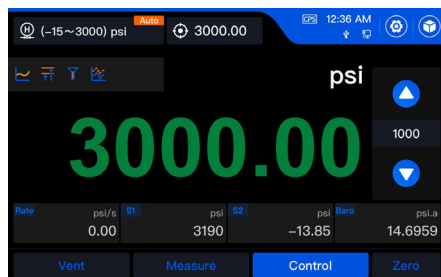
[5] The accuracy of the negative pressure part is equal to the accuracy of the positive pressure part, such as the maximum error of -15 psi is equal to the maximum allowable error of 15 psi.

[6] Accuracy: the error components include linearity, hysteresis, repeatability, resolution, reference standard measurement uncertainty, annual drift, temperature compensation, K=2.

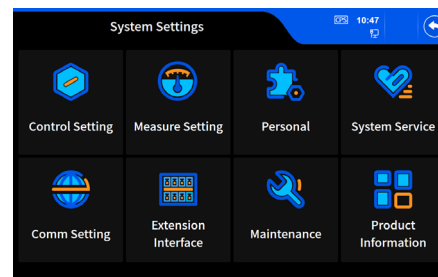
[7] Sealed gauge pressure for CP2KM, CP3KM, CP3.6KM, CP6KM.

## General Specifications

Specification	Description
Power Requirements	Power supply: AC100~240 V, 50/60 Hz
	Fuse: T3.15A 250V AC
	Maximum Power consumption: 150W
Size /Weight	Chassis Size: 17.32 × 5.23 × 14.96 in (440(W) × 133(H) × 380(D) mm)
	Rack Mount Dimensions: 3U-19" rack, Horizontal Direction
	Chassis weight: 16.9 kg
	Pressure module weight: 0.5 kg
Environment	Operating Ambient: 10°C to 50°C
	Storage Temperature: -20°C to 70°C
	Operating humidity: 5%RH~95%RH, non-condensing
	Altitude (Operation): <2000 m
	Ingress Protection: IP20, Indoor use only
	Vibration level: 2 G
	Impact intensity: 4 G
	Warmup Time: 15 minutes
Conformity	Machine drop height: 250 mm
	CE
Communications	RS232, USB-A*2, LAN
	WIFI, Bluetooth, GPIB, mouse, keyboard and other peripheral components can be expanded based on the USB port.
	SCPI Command set is compatible with ADT780, PACE5000/6000, DRUCK DPI520, user customizable
External drive valve port	3-channel external drive valves, green terminal connector with lock
	Maximum driving ability 24 V / 12 W, 30 V max
	One channel fixed to the CPS pollution prevention device, the remaining 2 channels, users can be used to Control the external vacuum Pump and external isolation valve
I/O Alarm port	3-channel, green terminal connector with a lock
	Volt-Free No/Nc relay, the maximum current-carrying capacity: 24 V / 0.5 A, 30 V max
Pressure switch test port	One channel, green terminal connector with lock
	Maximum load 24 V / 0.1 A 30 V max
	Support mechanical switch, electronic switch testing
Display	7-inch capacitive touch screen, 1280 * 800 resolution, reflective panels, black, white background can switch
	Communication update speed: 10 times per second
	Display refresh rate: 5 times per second
	Pressure value maximum displays: + 9999999, display digits is adjustable
External pressure module	Measurement only
Internal pressure control module port	Opening the cabin door will automatically release the pressure for safe removal of modules
	Inside of cabin, 3 pressure module bays, from left to right
	including a high pressure module bay, a low pressure module bay, and a barometric pressure module bay
Warranty	1 year
Hose & Filter End of Life	The estimated End of Life (EOL) expectancy for all accessory hoses and filters (pneumatic and hydraulic) is approximately 10 years and should be replaced at the first sign of wear or damage.



Main Interface



System Settings



## ORDERING INFORMATION

### ■ Model Number (Base Unit Only - No Pressure Modules)

**ADT783**

Model:

 ADT783-D  
 ADT783-1K  
 ADT783-3.6K  
 ADT783- 6K

ADT783 Base unit


 ADT151 Barometer Module  
 ADT151 Low Module  
 ADT151 High Module

### Model Number (Pressure Modules)

**ADT151**
**01**
**CP6K**
**Accuracy:**

 01 = 0.01% of full span  
 01RD = 0.01% of reading  
 02 = 0.02% of full span

 See ADT151 module  
 specification table



**ADT151-01-CP6K**
**ADT151**
**BP**

Model:














 ADT151-BP ( $\pm 22$  Pa)  
 ADT151-BPH ( $\pm 10$  Pa)





**ADT151-BP**

#### Accessories (included)

Model number	Quantity	Picture
AC power cord (10A 250V)	1 pc	
ISO17025 accredited calibration certificate	1 pc	
Green terminal plug (For switch detection)	2 pcs	
O-ring 3.5*1.5 (For ADT151)	10 pcs	
1/4 BSP plug (Only for ADT783-D)	1 pc	
O-ring 4*2 (For 1/4 BSP plug)	1 pcs	
ADT151 Reference Plug (Only for ADT783-D)	1 pc	
Standard vent assembly (Plug with vent valve) (Only for ADT783-1K/3.6K/6K)	1 pc	
5 feet flexible hose, 4500 psi, 1/4BSP female to 1/4BSP female ADT100-HTK-4.5K-BSPF4-BSPF4 (excl ADT783-6K)	1 pc	
5 feet flexible hose, 15000 psi, 1/4BSP female to 1/4BSP female ADT100-HTK-15K-BSPF4-BSPF4 (only for ADT783-6K)	1 pc	
Adapter, 1/4NPT male to 1/4BSP female (ADT100-NPTM4-BSPF4)	1 pc	
O-ring 5*1.5 (For ADT100-NPTM4-BSPF4)	1 pc	
Adapter, 1/4NPT male to 1/4BSP male (ADT100-NPTM4-BSPM4)	1 pc	
Ball-end hex wrench (4mm) for disassembling quick connector	1 pc	
Ball-end hex wrench (5mm) for disassembling ADT151	1 pc	

#### General Optional Accessories

Model number	Description	Picture
9050	USB to 232 cable	
9055-1	USB to Bluetooth module	
9055-2	USB to WIFI module	
9053	USB to GPIB adapter	
9050-EXT	RS232 communication line	
9245	Rack Flange Assembly	
9055	Green terminal plug	
9060	ADT161 pressure modules connection cable	
9054	Calibration fixture for ADT151 (Including adapter base w/ 1/4BSP male fitting, RS232/ power supply cable, 9V adapter, calibration software)	
9065	Precision electrical measurement module (More details, see next page)	
9029	Pressure switch testing lead kit – for use with 7xx pressure controllers	
9235	Booster for ADT783-6K (More details, see next page)	
ADT780-1k-Epump	1,000 psi (70 bar) electrical pump	

Output pressure connections (Optional)		
Model number	Description	Picture
9240A (Only for ADT783-D)	DP gauge holder with a built-in 80 ml chamber	
ADT121A	External Manifold (-15 ~ 6000 psi)	
1650700087	Quick connetcor (6 mm)	Need this 2 parts on Vent or Exhaust ports to drain the internal liquid to external container 
1650800039	Polyurethane tube (6 mm x 1.5 m )	
ADT108-KIT (only for 3.6K psi and below)	Contamination Prevention System (Including ERP#:1650800039 polyurethane hose, 1.5m length, and adaptor, 6mm Festo to 1/4BSP F)	

### Additel 9235 Pressure Booster

Specification	Description
Input Drive Pressure	87psi recommended
	Maximum 97 psi Gas Supply: 75-200psi Shop Air or better quality gas
Input Supply Pressure	Minimum: 435 psi, Maximum: 3000 psi
	Recommended: 1500~3000 psi
	Media: Clean Dry Nitrogen or Inert Gas (Nitrogen preferred)
High Pressure Output	Up to 6500 psi
	Safety relief valve setting 7250psi
Input to Output Ratio	75:1



### Technical Specification of 9065 Precision Electrical Measurement Module

Specification	Description				
Environment Requirements	Working temperature: 0°C ~40°C , Storage temperature: -20°C ~70°C , Guarantee accuracy: 15°C ~25°C				
	Working humidity: < 90%RH (0°C ~28°C) , < 75%RH (28°C ~40°C) , Storage humidity: < 95%RH (-20°C ~70°C )				
	Working altitude: < 2000 m, Storage altitude: < 12000 m				
Vibration and Shock	Compliance: MIL-28800F Class 3				
USB	Port Type: Type A				
	Power supply: 5V, peak power consumption 2.5W, average power consumption 1W				
	Functions: power supply, control and transmission data Communication protocol: CCPIV3				
Size , Weight and Length	0.22 × 0.15 × 0.05 in(66.5 × 44.3 × 16.3 mm)				
	0.22 lb (100 g)				
	The USB end is 1 meter, and the test end is 1.5 meters				
Warming Up Time	≥ 30 Min				
Input Protection	32Vmax (Measuring port)				
Sampling Rate	2.5 Readings / Second				
DC Voltage Measurement	Range	Resolution	Accuracy <sup>[1]</sup>	Temperature Coefficient <sup>[2]</sup>	Input impedance
	(-1~1)V (0~10)V	0.1uV 1uV	25+5 25+5	1+1 1+0.1	≥ 1GΩ ≥ 1GΩ
DC Current Measurement	Range	Resolution	Accuracy	Temperature Coefficient	Input impedance
	(0~22)mA	0.01uA	55+5	5+1	50Ω

[1] Accuracy specification: ±( ppm reading+ppm FS), (20±5°C), 1 year(k=3, 99% confidence)

[2] Temperature coefficient: exceeds (15-25)°C, increase per degree (ppm reading +ppm FS)