# Additel 160A **Intelligent Digital Pressure Modules**

- Pressure ranges to 60,000 psi (4,200 bar)
- Precision accuracy to 0.01% RD
- Pressure measurement accuracy of 0.02% FS
- Fully temperature compensated accuracy



Gauge pressure Differential pressure

With advanced microprocessor technology and state-of-the-art silicon pressure sensors, the Additel 160A series Intelligent Digital Pressure Module (IDPM) provides an accurate, reliable, and economic solution for wide range of pressure applications. It is loaded with functionality and remarkably easy to use. In order to reach the best performance, every silicon pressure sensor in the module has been specially aged, tested and screened before assembly. Designed as external pressure module for Additel 760 automatic handheld pressure calibrator, Additel 761 automated pressure calibrator and Additel 222A, Additel 223A and Additel 780 calibrators, the Additel 160A IDPM is unmatched in performance and reliability.

### **FEATURES**

**OVERVIEW** 

- Precision sensor measurement accuracy to 0.01% RD
- Gauge pressure measurement accuracy of 0.02% FS
- Absolute Pressure measurement accuracy of 0.1% FS
- Pressure ranges to 60,000 psi (4,200 bar)
- Advanced temperature compensation
- NIST traceable calibration and data included

#### PRESSURE RANGE

Differential Pressure						
P/N	Pressure	e Range <sup>[1]</sup>	Media	Accuracy (%FS)	Burst Pressure	Static Pressure
F/IN	(inH <sub>2</sub> 0)	(mbar)	IVIEUIA			Range
DP1	±1	±2.5	G	0.05 <sup>[2]</sup>	100×	±10 psi
DP2	±2	±5.0	G	$0.05^{[2]}$	100×	±10 psi
DP5	±5	±10	G	$0.05^{[2]}$	50×	±10 psi
DP10	±10	±25	G	$0.05^{[2]}$	20×	±10 psi
DP20	±20	±50	G	0.05	20×	±10 psi
DP30	±30	±75	G	0.05	20×	±10 psi
DP50	±50	±160	G	0.05	3×	±10 psi
DP150	±150	±350	G	0.02	3×	50 psi
DP300	±300	±700	G	0.02	3×	50 psi

[1] FS specification applies to the span of the range. Accuracy includes 1 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.

Gauge Pressure <sup>[1]</sup>						
D/N	Pressur	e Range	Media	A (0/ FO)	Burst	
P/N	(psi)	(bar)	[2]	Accuracy(%FS)	Pressure	
V15	-15	-1.0	G	0.02	3×	
GP2	2	0.16	G	0.05	3×	
GP5	5	0.35	G	0.05	3×	
GP10	10	0.7	G	0.02	3×	
GP15	15	1.0	G	0.02	3×	
GP30	30	2.0	G	0.02	3×	
GP50	50	3.5	G,L	0.02	3×	
GP100	100	7.0	G,L	0.02	3×	
GP150	150	10	G,L	0.02	3×	
GP300	300	20	G,L	0.02	3×	
GP500	500	35	G,L	0.02	3×	
GP600	600	40	G,L	0.02	3×	
GP1K	1,000	70	G,L	0.02	3×	
GP2K	2,000	140	G,L	0.02	3×	
GP3K	3,000	200	G,L	0.02	3×	
GP5K	5,000	350	G,L	0.02	3×	
GP10K	10,000	700	G,L	0.02	2×	
GP15K	15,000	1,000	G,L	0.05	2x	
GP20K	20,000	1,400	G,L	0.05	1.5x	
GP25K	25,000	1,600	G,L	0.1	1.5x	
GP30K	30,000	2,000	G,L	0.1	1.5x	
GP36K	36,000	2,500	G,L	0.1	1.5x	
GP40K	40,000	2,800	G,L	0.1	1.35x	
GP50K	50,000	3,500	G,L	0.1	1.2x	
GP60K	60,000	4,200	G,L	0.1	1.1x	

- [1]. Sealed gauge pressure for above 1000 psi
- [2]. G=Gas, L=Liquid

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# **SPECIFICATIONS**

Precision Sensors <sup>[1]</sup> - Absolute Pressure						
P/N	Pressure Range		Mandia.	Accuracy <sup>[2]</sup>	Pressure Rating	
P/N	psia	bar.a	Media	Accuracy ·	Burst	Over Pressure
AP15R	0 to 15	0 to 1	G	0.01% FS	2x	1.2x
AP30R	0 to 30	0 to 2	G	0.01% rdg or 0.003% FS whichever is greater	2x	1.2x
AP50R	0 to 50	0 to 3.5	G	0.01% rdg or 0.003% FS whichever is greater	2x	1.2x
AP100R	0 to 115	0 to 8	G,L	0.01% rdg or 0.003% FS whichever is greater	2x	1.2x
AP300R	0 to 315	0 to 21	G,L	0.01% rdg or 0.003% FS whichever is greater	2x	1.2x
AP500R	0 to 515	0 to 36	G,L	0.01% rdg or 0.003% FS whichever is greater	2x	1.2x
AP1KR	0 to 1,015	0 to 71	G,L	0.01% rdg or 0.003% FS whichever is greater	2x	1.2x
AP2KQ	0 to 2,015	0 to 141	G	0.005% rdg + 0.005% FS	3x	1.1x
AP3KQ	0 to 3,015	0 to 201	G	0.005% rdg + 0.005% FS	3x	1.1x
AP6KQ	0 to 6,000	0 to 400	G,L	0.01% FS	3x	1.2x
AP10KQ	0 to 10,000	0 to 700	G,L	0.01% FS	2x	1.2x
AP15KQ	0 to 15,000	0 to 1,000	G,L	0.01% FS	2x	1.2x
AP20KQ	0 to 20,000	0 to 1,400	G,L	0.01% FS	2x	1.2x
AP30KQ	0 to 30,000	0 to 2,000	G,L	0.02% FS	1.5x	1.1x
AP40KQ	0 to 40,000	0 to 2,800	G,L	0.02% FS	1.5x	1.1x

<sup>[1]</sup> Contact Additel for other range options.
[2] Accuracy includes calibration uncertainty, linearity and long-term stability.

Compound Pressure							
P/N	Pressure Range			_	Pressure Rating		
	psig	bar.g	Media	Accuracy	Burst	Over Pressure	
CP2	±2	±0.16	G	0.05% FS	3x	1.2x	
CP5	±5	±0.35	G	0.02% FS	3x	1.2x	
CP10	±10	±0.7	G	0.02% FS	3x	1.2x	
CP15	±15	±1.0	G	0.02% FS	3x	1.2x	
CP30	-15 to 30	-1 to 2.0	G	0.02% FS	3x	1.2x	
CP50	-15 to 50	-1 to 3.5	G	0.02% FS	3x	1.2x	
CP100	-15 to 100	-1 to 7.0	G,L	0.02% FS	3x	1.2x	
CP300	-15 to 300	-1 to 20	G,L	0.02% FS	3x	1.2x	
CP500	-15 to 500	-1 to 35	G,L	0.02% FS	3x	1.2x	
CP600	-15 to 600	-1 to 40	G,L	0.02% FS	3x	1.2x	
CP1K	-15 to 1,000	-1 to 70	G,L	0.02% FS	3x	1.2x	
CP2K	-15 to 2,000	-1 to 140	G,L	0.02% FS	3x	1.2x	
СРЗК	-15 to 3,000	-1 to 200	G,L	0.02% FS	3x	1.2x	
CP5K	-15 to 5,000	-1 to 350	G,L	0.02% FS	3x	1.2x	
CP10K	-15 to 10,000	-1 to 700	G,L	0.02% FS	2x	1.2x	



#### **Absolute Pressure** Pressure Range Burst P/N Media Accuracy(%FS) Pressure (psi) (bar) AP5 5 0.35 G 0.1 3× AP10 10 0.7 G 0.1 3× AP15 15 1.0 G 0.1 3× AP30 30 2.0 G 0.1 3× AP50 50 3.5 G 0.1 3× AP100 100 7.0 G, L 0.05 (0.1) 3× AP300 300 20 G, L 0.05 (0.1) 3× AP500 500 35 G,L 0.05 (0.1) 3× AP1K 1,000 70 G,L 0.05 (0.1) 3× AP3K 3,000 200 G,L 0.05 (0.1) 3×

Barometric Pressure							
P/N	Pressure Range		NAIII -	A	Burst		
P/IN	Low	High	Media	Accuracy	Pressure		
BP	60 kPa	110 kPa	G	40 Pa	3×		

G, L

0.05 (0.1)

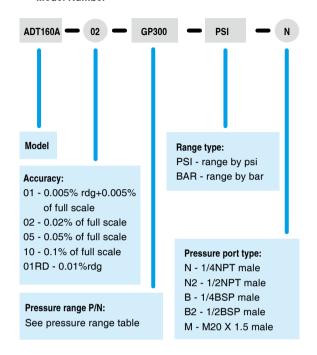
3×



Additel 223A with ADT160A Pressure Module

### **ORDERING INFORMATION**

### Model Number



# Accessories included NIST Traceable Calibration Certificate

## Optional Accessories

Model number	Description	Picture	
9060	Pressure module connection cable		

# **SPECIFICATIONS**

AP5K

5,000

350

	Standard Accuracy			Precision Accuracy		
	CPXXX GPXXX DPXXX		APXXQ	APXXR		
Operating temperature	-10°C to 50°C (14°F to 122°F)  -20°C to 70°C (-4°F to 158°F)  95% RH  1/4NPT, 1/2NPT, 1/4BSP, 1/2BPS, M20x15  FESTO 6mm		15°C to 25°C (59°F to 77°F)	10°C to 30°C (50°F to 86°F)		
Storage temperature			-20°C to 70°C (-4°F to 158°F)			
Relative humidity			90% RH			
Pressure connections (for external use only)			1/4NPT, 1/2NPT, 1/4BSP, 1/2BSP, M20x15			
Enclosure (for external use only)		SS enclosure		SS enclosure		
Dimensions (Dia x H)	33 mm x 123 mm (1.3" x 4.84")		Depends on the model	44 mm x 195 mm (1.7" x7.7")		
Weight	0.4 kg (0.99 lb) 1 Year		Depends on the model	0.7 kg (1.5 lb)		
Warranty			1 Year	1 Year		