

Additel 160A

Intelligent Digital Pressure Modules



*New Precision Accuracy Models with
1-Year Uncertainty to 0.01% of Reading*

- 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

OVERVIEW

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

- 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 Range ^[1]		Media	Accuracy (%FS)	Burst Pressure	Static Pressure Range
	(inH ₂ O)	(mbar)				
DP1	±1	±2.5	G	0.05 ^[2]	100x	±10 psi
DP2	±2	±5.0	G	0.05 ^[2]	100x	±10 psi
DP5	±5	±10	G	0.05 ^[2]	50x	±10 psi
DP10	±10	±25	G	0.05 ^[2]	20x	±10 psi
DP20	±20	±50	G	0.05	20x	±10 psi
DP30	±30	±75	G	0.05	20x	±10 psi
DP50	±50	±160	G	0.05	3x	±10 psi
DP150	±150	±350	G	0.02	3x	50 psi
DP300	±300	±700	G	0.02	3x	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 ^[1]					
P/N	Pressure Range		Media ^[2]	Accuracy(%FS)	Burst Pressure
	(psi)	(bar)			
V15	-15	-1.0	G	0.02	3x
GP2	2	0.16	G	0.05	3x
GP5	5	0.35	G	0.05	3x
GP10	10	0.7	G	0.02	3x
GP15	15	1.0	G	0.02	3x
GP30	30	2.0	G	0.02	3x
GP50	50	3.5	G , L	0.02	3x
GP100	100	7.0	G , L	0.02	3x
GP150	150	10	G , L	0.02	3x
GP300	300	20	G , L	0.02	3x
GP500	500	35	G , L	0.02	3x
GP600	600	40	G , L	0.02	3x
GP1K	1,000	70	G , L	0.02	3x
GP2K	2,000	140	G , L	0.02	3x
GP3K	3,000	200	G , L	0.02	3x
GP5K	5,000	350	G , L	0.02	3x
GP10K	10,000	700	G , L	0.02	2x
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



SPECIFICATIONS

Precision Sensors ^[1] - Absolute Pressure						
P/N	Pressure Range		Media	Accuracy ^[2]	Pressure Rating	
	psia	bar.a			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

[1] Contact Additel for other range options.

[2] Accuracy includes calibration uncertainty, linearity and long-term stability.

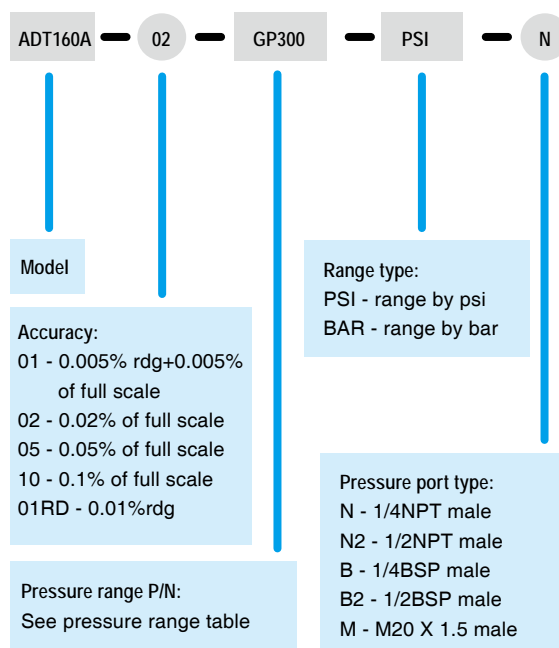
Compound Pressure						
P/N	Pressure Range		Media	Accuracy	Pressure Rating	
	psig	bar.g			Burst	Over Pressure
CP2	±2	±0.16	G	0.05% FS	3x	1.2x
CP5	±5	±0.35	G	0.02% FS	3x	1.2x
CP10	±10	±0.7	G	0.02% FS	3x	1.2x
CP15	±15	±1.0	G	0.02% FS	3x	1.2x
CP30	-15 to 30	-1 to 2.0	G	0.02% FS	3x	1.2x
CP50	-15 to 50	-1 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
CP3K	-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					
P/N	Pressure Range		Media	Accuracy(%FS)	Burst Pressure
	(psi)	(bar)			
AP5	5	0.35	G	0.1	3x
AP10	10	0.7	G	0.1	3x
AP15	15	1.0	G	0.1	3x
AP30	30	2.0	G	0.1	3x
AP50	50	3.5	G	0.1	3x
AP100	100	7.0	G , L	0.05 (0.1)	3x
AP300	300	20	G , L	0.05 (0.1)	3x
AP500	500	35	G , L	0.05 (0.1)	3x
AP1K	1,000	70	G , L	0.05 (0.1)	3x
AP3K	3,000	200	G , L	0.05 (0.1)	3x
AP5K	5,000	350	G , L	0.05 (0.1)	3x

Barometric Pressure					
P/N	Pressure Range		Media	Accuracy	Burst Pressure
	Low	High			
BP	60 kPa	110 kPa	G	40 Pa	3x

ORDERING INFORMATION

Model Number



Accessories included

NIST Traceable Calibration Certificate

Optional Accessories

Model number	Description	Picture
9060	Pressure module connection cable	

Additel 223A with ADT160A Pressure Module

SPECIFICATIONS

	Standard Accuracy			Precision Accuracy	
	CPXXX	GPXXX	DPXXX	APXXQ	APXXR
Operating temperature	-10°C to 50°C (14°F to 122°F)			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)			-20°C to 70°C (-4°F to 158°F)	
Relative humidity	95% RH			90% RH	
Pressure connections (for external use only)	1/4NPT, 1/2NPT, 1/4BSP, 1/2BSP, M20x15		FESTO 6mm	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" x 7.7")
Weight	0.4 kg (0.99 lb)			Depends on the model	0.7 kg (1.5 lb)
Warranty	1 Year			1 Year	1 Year