Additel 161, 161Ex
Intelligent Digital Pressure Modules

Additel
Metrology Made Simple

- Pressure ranges to 60,000 psi (4,200 bar)
- Pressure measurement accuracy of 0.02% FS
- Precision accuracy to 0.01% RD, 0.05% accuracy up to 40K psi
- Intrinsically Safe (Ex) models available
- Fully temperature compensated accuracy



Gauge pressure Differential pressure

OVERVIEW

With advanced microprocessor technology and state-of-the-art silicon pressure sensors, Additel's 161 and 161Ex series Digital Pressure Modules provide an accurate, reliable, and economic solution for wide range of pressure applications. Our intrinsically safe (Ex) models are up to the task of providing the best possible results, even in hazardous environments. 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 modules for Additel's 760 automatic handheld pressure calibrator, the ADT761 automated pressure calibrator, ADT226 series handheld process calibrator and Additel's flagship 780 pressure controller, the Additel 161 is unmatched in performance and reliability. If intrinsic safety is a critical requirement for your workload, we have you covered when you combine our model ADT226Ex process calibrator with any of our ADT161Ex pressure modules.

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)
- Intrinsically Safe (Ex) models available
- Advanced temperature compensation
- ISO 17025 accredited calibration and data included

PRESSURE RANGE

Differential Pressure

P/N	Pressure Range[1]		Media	Accuracy (%FS)	Burst Pressure	Static Pressure Range
	(inH_2O)	(mbar)				
DP1	±1	±2.5	G	0.05[2]	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
DP100	±100	±250	G	0.02	3×	±15 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[1]

P/N	Pressure Range		Media [2]	Accuracy(%FS)	Burst Pressure
	(psi)	(bar)			
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×
GP1.5K	1,500	100	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	0.05	1.5x
GP30K	30,000	2,000	G , L	0.05	1.5x
GP36K	36,000	2,500	G , L	0.05	1.5x
GP40K	40,000	2,800	G , L	0.05	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

Now Offering 0.05% Accuracy Up to 40K PSI

Phone: 714-998-6899 **Email: sales@additel.com**
Rev # 20210528

Corporate Headquarters
2900 Saturn St #B
Brea, CA 92821, USA

Salt Lake City Office
1364 West State Rd. Suite 101
Pleasant Grove, UT 84062, USA

Additel
Metrology Made Simple

SPECIFICATIONS

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	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×
AP5K	5,000	350	G , L	0.05 (0.1)	3×

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

Phone: 714-998-6899 **Email: sales@additel.com**
Rev # 20210528

Corporate Headquarters
2900 Saturn St #B
Brea, CA 92821, USA

Salt Lake City Office
1364 West State Rd. Suite 101
Pleasant Grove, UT 84062, USA

Additel
Metrology Made Simple

Precision Sensors[1] [3] - Absolute Pressure						
P/N	Pressure Range		Media	Accuracy[2]	Pressure Rating	
	psi.a	bar.a			Burst	Over Pressure
AP15R	15	1	G	0.01% FS	2x	1.2x
AP30R	30	2	G	0.01% rdg or 0.003% FS whichever is greater	2x	1.2x
AP50R	50	3.5	G	0.01% rdg or 0.003% FS whichever is greater	2x	1.2x
AP100R	115	8	G,L	0.01% rdg or 0.003% FS whichever is greater	2x	1.2x
AP300R	315	21	G,L	0.01% rdg or 0.003% FS whichever is greater	2x	1.2x
AP500R	515	36	G,L	0.01% rdg or 0.003% FS whichever is greater	2x	1.2x
AP1KR	1,015	71	G,L	0.01% rdg or 0.003% FS whichever is greater	2x	1.2x
AP2KR	2,015	141	G,L	0.01% rdg or 0.003% FS whichever is greater	3x	1.1x
AP3KR	3,015	201	G,L	0.01% rdg or 0.003% FS whichever is greater	3x	1.1x
AP6KQ	6,000	400	G,L	0.01% FS	3x	1.2x
AP10KQ	10,000	700	G,L	0.01% FS	2x	1.2x
AP15KQ	15,000	1,000	G,L	0.01% FS	2x	1.2x
AP20KQ	20,000	1,400	G,L	0.01% FS	2x	1.2x
AP30KQ	30,000	2,000	G,L	0.02% FS	1.5x	1.1x
AP40KQ	40,000	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.
[3] Precision Sensors (APXR and APXQ) cannot be configured as an Ex model and cannot be read by Ex device.



Additel 226Ex with ADT161Ex Pressure Module

ORDERING INFORMATION

Model Number

ADT161 – 02 – GP300 – PSI – N

Model:
ADT161
ADT161Ex

Accuracy:
01 - 0.005% rdg+0.005% of full scale
02 - 0.02% of full scale
05 - 0.05% of full scale
10 - 0.1% of full scale
01RD - 0.01%rdg

Pressure range P/N:
See pressure range table

Range type:
PSI - range by psi
BAR - range by bar

Pressure port type:
N - 1/4NPT male
N2 - 1/2NPT male
B - 1/4BSP male
B2 - 1/2BSP male
M - M20 X 1.5 male

Note:Precision Sensors (APXR and APXQ) cannot be configured as an Ex model and cannot be read by Ex device.

Accessories included

ISO 17025 accredited Calibration Certificate

Optional Accessories

Model number	Description	Picture
9060	Pressure module connection cable	

SPECIFICATIONS

	Standard Accuracy			Precision Accuracy	
	CPXXX	DPXXX	GPXXX	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, 1/2BPS, M20x15			1/4NPT, 1/2NPT, 1/4BSP, 1/2BSP, M20x15	
Enclosure (for external use only)	SS enclosure			SS enclosure	
Intrinisic Safety (ADT161Ex models only)	ATEX certified intrinsically safe II 1G EX ia IIC T4 Ga TUR 16.0023X			N/A	
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)			Depends on the model	0.7 kg (1.5 lb)
Warranty	1 Year			1 Year	1 Year

Phone: 714-998-6899 **Email: sales@additel.com**
Rev # 20210528

Corporate Headquarters
2900 Saturn St #B
Brea, CA 92821, USA

Salt Lake City Office
1364 West State Rd. Suite 101
Pleasant Grove, UT 84062, USA