5.0 SPECIFICATIONS
5.1 Standard Specifications

		MODEL NUMBER			
		710A 710B See Sec 3.1	711A 711B See Sec. 3.2	712A See Sec. 3.3	713B See Sec. 3.4
■ SENSOR:	Solid state non-contacting optical sensor measuring motion of a diaphragm or Bourdon tube pressure element, depending upon range	Diaphragm to 236 psi Bourdon tube for higher ranges		Diaphragm	
■ PRESSURE SENSOR MATERIAL:	Element	Inconel — 718. Optional 403 St. St. (410 St. St.) Consult Factory			
	Other Wetted Parts	316 st. st.			
■ PRESSURE MEDIA:		Any liquid or gas compatible with wetted parts materials (Note: For differential pressure indicator, low pressure port must use clean, dry, non-corrosive gas.)			
■ PROCESS CONNECTION:		1/4" NPT female/1/2" NPT male combination for ranges to 5000 psi. AUTOCLAVE F-250-C/AMINCO 45-11310 for ranges 6000 psi and higher			
■ RANGES:	Gauge Pressure —	0-50 inches water to 0-30,000 psi		—	—
	Absolute Pressure —	0-200 inches water to 0-30,000 psi		0-36" Hg A 0-800 mm HgA	20-34" Hg A
	Differential Pressure —	0-50 inches water to 0-100 psi		—	—
■ ACCURACY:	Percent of span including sensitivity, linearity, repeatability and hysteresis at 73°F (23°C) —	710A 711A	Better than ±0.1%	Better than ±0.05%	Within ±0.03% of Reading from 26" to 32" Hg
		710B 711B	Better than ±0.05%		
■ REPEATABILITY:		Better than ±0.005% of span			
■ SENSITIVITY:		Better than 0.005% of span			
■ DISPLAY:	Single plane, 0.43" high LED with decimal point and polarity —	4 1/2 digit For ranges with 20,000 or more counts, LSD is inactive	5 digit		
■ CONVERSION PERIOD:	Milliseconds maximum —	250 ms		Pressure Display 250 ms Altitude Display 800 ms	250 ms
■ WARM UP TIME:	For rated accuracy —	Less than 15 minutes			
	For complete stability —	Less than 30 minutes			
■ OPERATING TEMPERATURE RANGE:		25°F to 125°F (−4°C to 52°C)			
■ TEMPERATURE COMPENSATION:	Standard —	45°F to 95°F (7°C to 35°C)		60°F to 80°F (15°C to 27°C)	
	Optional —	25°F to 125°F (−4°C to 52°C)		—	
■ MAXIMUM TEMPERATURE EFFECT:	Percent of span per °F from reference temperature of 73°F (23°C)	±0.004% of span per °F over temperature compensated span		±0.003% of span per °F over temperature compensated span	
■ STORAGE TEMPERATURE:		−40°F to 180°F (−40°C to 82°C)			
■ OVERPRESSURE CAPABILITY:	Note: Calibration adjustment may be required after overpressure	100% of span to 500 psi 30% of span to 7,500 psi 20% of span to 10,000 psi 10% of span to 30,000 psi		100% of span	
■ OUTPUT SIGNALS: See Section 6.0 for complete details	Standard —	Serial Output	—		
		—	B C D		
	Optional —	B C D	—		
		Hi-Lo Set Point Comparator with BCD and Relay Closures	—		
		4-20 ma and 0-10v with BCD	—		
■ POWER SUPPLY INPUT:		100/115/230 VAC nominal ±10%, 50/60 Hz			
■ POWER CONSUMPTION:	Watts Maximum	7	12		
■ RECHARGEABLE BATTERY PACK — MODEL 705BP		See Section 3.5			
■ HOUSING:		Black epoxy finished aluminum case with brushed aluminum front plate and black ABS plastic bezel			
■ MOUNTING:		Bench or panel. Portable with Model 705 BP rechargeable battery pack. (See Sections 3.5 and 14.0)			
■ DIMENSIONS:		See Section 14.0			
■ WEIGHT:	Pounds (Kilograms)	7.3 (3.3)	9 (4.1)		
NOTE: For additional specifications applying to specified model number only, refer to Section		—	3.2	3.3	3.4

TABLE II

6.0 STANDARD PRESSURE RANGES

6.1 Models 710 and 711 — Table III Gauge, Absolute and Differential Pressure Standard Ranges[1]

Models 710A and 711A — Standard — .10 percent of span accuracy — Available in all ranges

Models 710B — Optional — .05 percent of span accuracy — Available ranges shown in bold type

Model 711B — Optional — .05 percent of span accuracy — Available in all ranges

6.2 Model 712A

Refer to Section 3.3

6.3 Model 713B

Refer to Section 3.4

TABLE III

	psi	Inches Water	Inches Mercury	millimeters Mercury or Torr	Pascals	kg/cm² kp/cm² or bar	millibar or centimeters Water	millimeters Water
Differential Pressure Ranges[4] / Gauge Pressure Ranges / Absolute Pressure Ranges[3]	**2**	**50**	**5**	**100**	kPa **20**		**100**	**2,000**
	3	**100**		**150**	30		**200**	3,000
		150		**200**			300	
	5	**200**	**10**	300	**50**	1.0	**500**	**5,000**
	10	300	**20**	**500**	**60**	**1.6**	**1,000**	**10,000**
	15	400	30	**600**	**100**	2.5	**2,000**	
	20	**500**	32	**760**	**160**	4.0	3,000	
	30	**600**	36	**1,000**	250	**5.0**	**5,000**	
	50	**1,000**	**50**	**1,500**	400	**6.0**	**6,000**	
	60	**2,000**	**60**	**2,000**	**500**			
	100	3,000	**100**	3,000	**600**			
			200	**5,000**				
	150		300	**6,000**	**1,000**	**10**	**10,000**	
	200			**10,000**	**1,600**	**16**		
	300				2,500	25		
	500				4,000	40		
	600				**6,000**	**60**		
	800				**10,000**	**100**		
	1,000				**16,000**	**160**		
	1,500				MPa	250		
	2,000				25	400		
	2,500				40	**600**		
	3,000				**60**	**1,000**		
	4,000				**100**	**1,600**		
	5,000				**160**	**2,000**		
	6,000				**200**			
	10,000							
	15,000							
	20,000							
	25,000							
	30,000							
VACUUM RANGES	**15**		**5**	**100**	kPa	**0.1**	**1000**[2]	
			10	**200**	**20**	**0.2**		
			20	300	30	0.3		
			30	**500**	**50**	**0.5**		
					100	1.0		

(1) — Non standard ranges on application.

(2) — Available in millibar only.

(3) — Evacuated reference side for barometric compensation.

(4) — Reference side (low pressure port) must use clean, dry, non-corrosive gases. High pressure port can be used with any media compatible with 316 S.S. and Inconel -718. Maximum static working pressure for low pressure port is 100 psi.

Pressure	Vacuum		Pressure	Vacuum	
10 psig	**−4.5**	**psig**	**10 In Hg**	**−4.5**	**In Hg**
15 psig	**−4.5**	**psig**	**15 In Hg**	**−4.5**	**In Hg**
20 psig	**−4.5**	**psig**	**20 In Hg**	**−4.5**	**In Hg**
30 psig	−5	psig	30 In Hg	−5	In Hg
50 psig	**−5**	**psig**	**50 In Hg**	**−5**	**In Hg**
60 psig	**−5**	**psig**	**60 In Hg**	**−5**	**In Hg**
100 psig	**−15**	**psig**	**100 In Hg**	**−30**	**In Hg**
150 psig	**−15**	**psig**	**150 In Hg**	**−30**	**In Hg**
200 psig	**−15**	**psig**	**200 In Hg**	**−30**	**In Hg**
300 psig	−15	psig	300 In Hg	−30	In Hg
			600 In Hg	**−30**	**In Hg**

With Model 711, selection between inches of mercury and psi can be accomplished.

TABLE IV

COMPOUND RANGES

The vane attached to the element of a Series 7 pressure sensor can be positioned to detect both positive and negative pressure changes, thus permitting limited compound ranges to be supplied. Compound ranges that can be furnished, as standard, are shown in Table IV. For other ranges, consult Newtown.