

Downstream Pressure Control - Capacitance Diaphragm Gauges (CDG045)



The **CDG045-series** manometers are your best choice for high accurate total pressure measurement and control. **CDG045-series** gauges are temperature controlled at 45°C for superior signal stability and repeatability. They are available for full scale ranges from 100 mTorr to 1000 Torr, with all common flange types and provide a linear 0 to 10 V, gas type independent, pressure signal. Nor-Cal's capacitance diaphragm gauges use an ultra pure alumina ceramic diaphragm which is corrosion proof. The advantages of the ceramic sensor are better signal stability, faster recovery from atmosphere, short warm up time and an extraordinary lifetime. The **CDG045-series** gauges are high quality, cost effective pressure sensors for demanding vacuum applications.

ADVANTAGES

- Lower cost of ownership, 50% faster warm up, energy efficient low power consumption
- Easy integration, wide variety of full scales, flanges and interfaces, standard with two set points
- Easy one push button or remote signal zero command, zero offset adjustable
- Diagnostic port for quick service and maintenance
- Two year warranty, longer life time with advanced heating concept and gauge protection
- No long term recalibration due to excellent signal stability and repeatability, even in harsh plasma applications
- Compliance & standards: CE, EN, UL, SEMI, RoHS

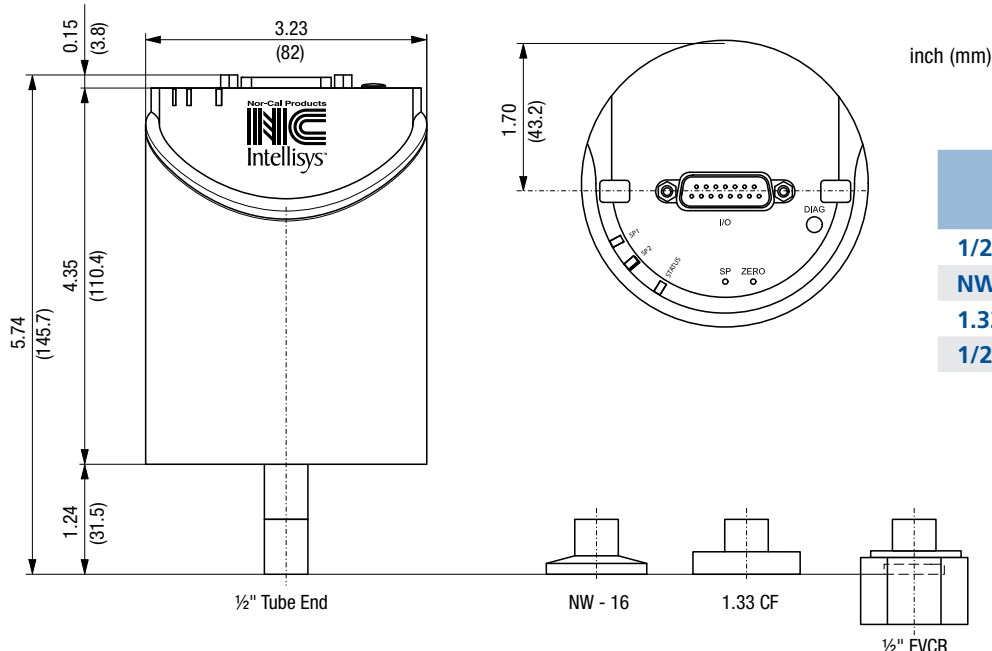
MODEL NUMBER	F.S. RANGE	TUBE FITTING	HEATED
CDG045-M11	100 mTorr	1/2" Tube End	45°C
CDG045-M11-CF	100 mTorr	1.33" CF	45°C
CDG045-M11-NW1	100 mTorr	NW-16	45°C
CDG045-M11-VCR	100 mTorr	1/2" FVCR	45°C
CDG045-T01	1 Torr	1/2" Tube End	45°C
CDG045-T01-CF	1 Torr	1.33" CF	45°C
CDG045-T01-NW1	1 Torr	NW-16	45°C
CDG045-T01-VCR	1 Torr	1/2" FVCR	45°C
CDG045-T02	2 Torr	1/2" Tube End	45°C
CDG045-T02-CF	2 Torr	1.33" CF	45°C
CDG045-T02-NW1	2 Torr	NW-16	45°C
CDG045-T02-VCR	2 Torr	1/2" FVCR	45°C
CDG045-T11	10 Torr	1/2" Tube End	45°C
CDG045-T11-CF	10 Torr	1.33" CF	45°C
CDG045-T11-NW1	10 Torr	NW-16	45°C
CDG045-T11-VCR	10 Torr	1/2" FVCR	45°C
CDG045-T12	20 Torr	1/2" Tube End	45°C
CDG045-T12-CF	20 Torr	1.33" CF	45°C
CDG045-T12-NW1	20 Torr	NW-16	45°C
CDG045-T12-VCR	20 Torr	1/2" FVCR	45°C
CDG045-T21	100 Torr	1/2" Tube End	45°C
CDG045-T21-CF	100 Torr	1.33" CF	45°C
CDG045-T21-NW1	100 Torr	NW-16	45°C
CDG045-T21-VCR	100 Torr	1/2" FVCR	45°C
CDG045-T31	1,000 Torr	1/2" Tube End	45°C
CDG045-T31-CF	1,000 Torr	1.33" CF	45°C
CDG045-T31-NW1	1,000 Torr	NW-16	45°C
CDG045-T31-VCR	1,000 Torr	1/2" FVCR	45°C



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	INTERNAL VOLUME in ³ (cm ³)	WEIGHT grams
1/2" Tube End	0.26 (4.2)	837
NW - 16	0.26 (4.2)	852
1.33 CF	0.26 (4.2)	875
1/2" FVCR®	0.26 (4.2)	897

MEASUREMENT RANGE F.S. (FULL SCALE)	TORR	1000	100	20/10	2/1	0.1
Accuracy ¹⁾	% of reading			0.15		
Temperature effect on zero on span	% F.S. / °C			0.0025		0.005
	% of reading / °C			0.01		
Pressure, max.	kPa (absolute)	400		260		130
Resolution	% F.S.			0.003		
Lowest reading	% F.S.			0.01		
Lowest suggested reading	% F.S.			0.05		
Lowest suggested control pressure	% F.S.			0.05		
Temperature Operation (ambient) Bakeout at flange Storage	°C			+10 to +40		
	°C			≤110		
	°C			-40 to +65		
Supply voltage				+14 to +30 VDC or ± 15 V (±5%)		
Power consumption During Heat up At operating temperature	W			≤12		
	W			≤8		
Output signal (analog)	VDC			0 to +10		
Response time ²⁾	ms			30		130
Degree of protection				IP 40		
Standards		EN 61000-6-2/6-3, EN 61010, UL 61010-1, CSA 22.2 No. 61010-1, SEMI S-2				
Electrical connection		D-sub, 15 pin, male				
Set point Relay Contact Hysteresis	VDC / ADC % F.S.	two set points (SPT, SP2) ≤30 / ≤0.5 1				
Diagnostic port Protocol Reed Set		RS232-C Pressure, status, ID, set points, filter, zero adjust, factory reset, DC offset				
Materials exposed to vacuum		Aluminum oxide ceramic (A203), stainless steel (AISI 316L ³⁾ , Nickel, sealing glass				

¹⁾ Non-linearity, hysteresis, repeatability at 25 °C ambient operating temperature without temperature effects after 2 hours operation.

²⁾ Incease 10 to 90% F.S.

³⁾ 18% Cr, 10% Ni, 3% Mo, 69% Fe

