



Porter™ CDG020D

Capacitance Diaphragm Gauges

The INFICON Porter CDG020D Capacitance Diaphragm Gauge is a high quality, cost effective, gas type independent absolute pressure sensor. The Porter is designed for stable long time performance in industrial environments. The ceramic sensor provides excellent span stability over many years of maintenance free operation paired with outstanding zero stability. The corrosion resistant single material sensor architecture guarantees excellent temperature compensation. Fully digital electronics and small footprint defines flexibility in any integration. The Porter vacuum gauge is humble, reliable, always available and never overpaid.

ADVANTAGES

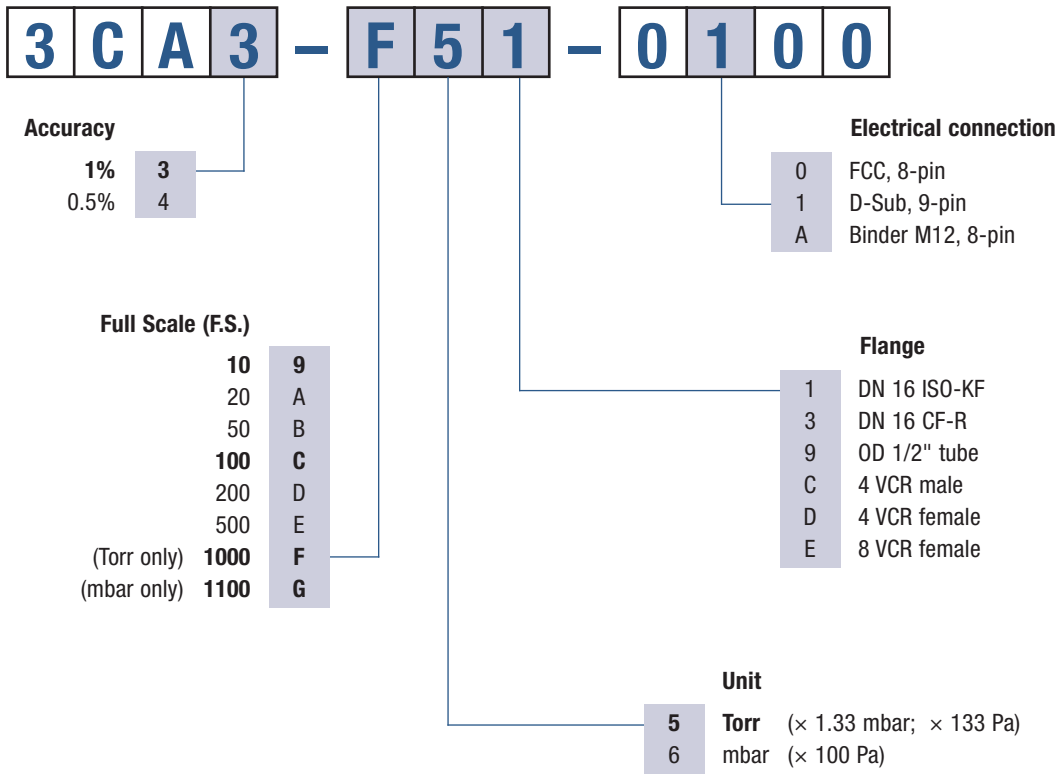
- Excellent span stability – gas type independent
- Corrosion resistant alumina sensor
- Compact, smallest size in it's class
- Easy integration, any mounting orientation
- Digital signal processing
- Maintenance free

APPLICATIONS

- Vacuum coating
- Vacuum monitoring
- Sterilization
- Food & packaging
- Vacuum oven, puller
- Analytical
- Chemical vacuum processes



ORDERING INFORMATION



bold = standard products

Other flange types and full scales (F.S.) on request.

SPECIFICATIONS

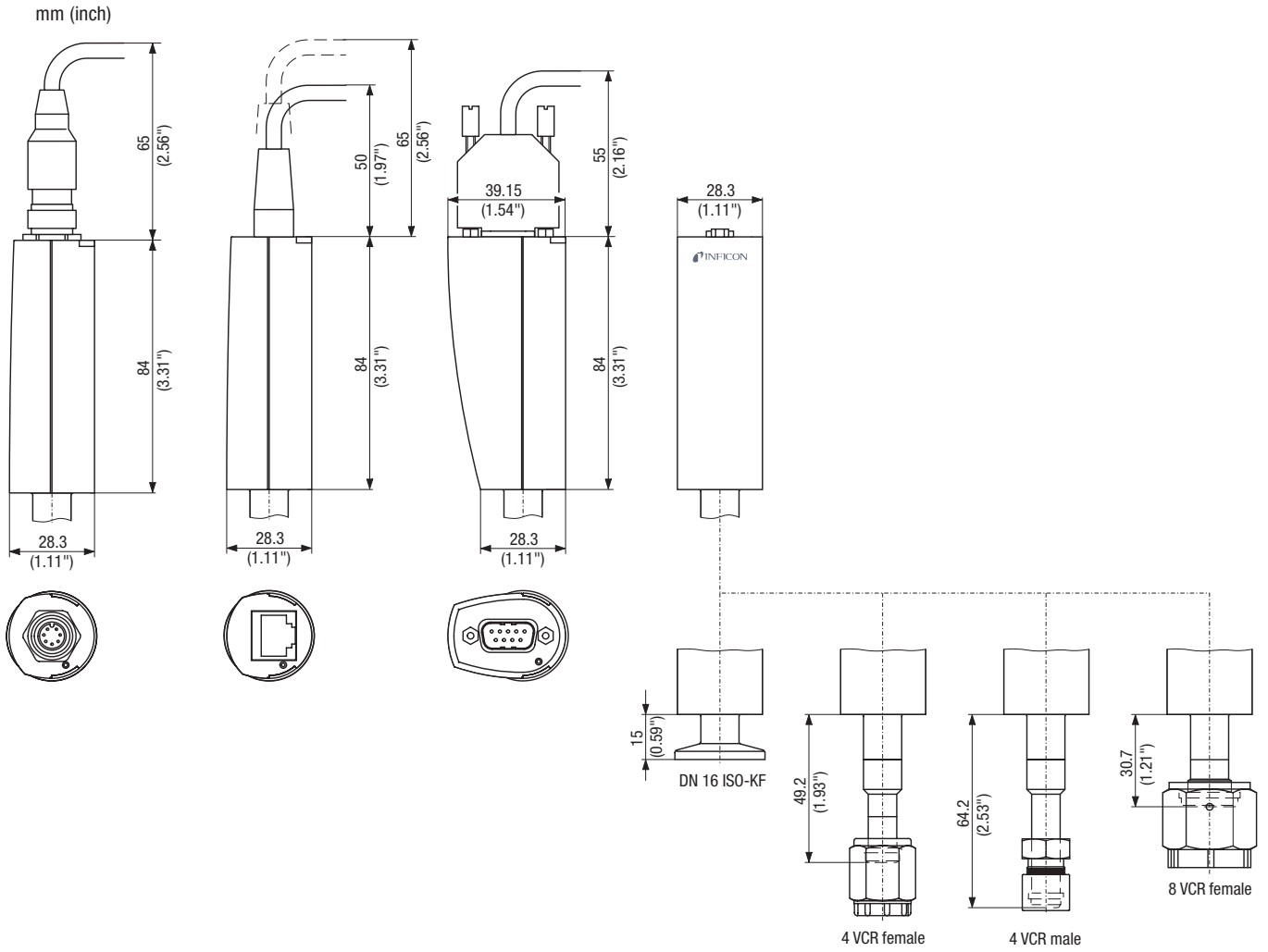
Measurement Range F.S. (Full Scale)	Torr Pa mbar	1000 133322 1333	100 13332 133	10 1333 13.3	500 66661 667	200 26664 267	50 6666 66.7	20 2666 27	110000 1100	10000 100	1000 10
Accuracy ¹⁾											
3CA3-xxx-xxxx	% of reading								1		
3CA4-	% of reading								0.5		
Temperature effect											
On zero	% F.S./°C								0.02		
On span	% of reading/°C								0.02		
Resolution	% F.S.								0.05		
Long time stability	% F.S./year								0.5		
Lowest reading	% F.S.								0.05		
Temperature compensated range	°C								+10 ... +50		
Admissible temperature											
Operation (ambient)	°C								0 ... +70		
Bakeout at flange ²⁾	°C								≤110		
Storage	°C								-20 ... +85		
Ambient humidity limits	% RH								<80%, non-condensing		
Supply voltage	V DC								+13 ... +30		
Power consumption	W								≤0.3		
Output signal (analog)	V DC								0 ... +10		
Max. output voltage	V DC								+10.24		
Response time ³⁾	ms								100		
Degree of protection									IP 40		
Standards											
CE conformity									EMC (EN 61000-6-2, EN 61000-6-3), EN 61010-1 & RoHS		
ETL certification									UL 61010-1, CAN/CSA C22.2 No.61010-1		
SEMI compliance									SEMI S2		
Electrical connection											
3CAx-xxx-0000									FCC, 8-pin		
-0100									D-Sub, 9-pin, male		
-0A00									Binder M12, 8-pin, male		
Materials exposed to vacuum									Aluminum oxide ceramic (Al ₂ O ₃), stainless steel 1.4404 / AISI 316L		
Tightness	mbar l/s								<1×10 ⁻⁹		
Mounting orientation									any		
Internal volume											
DN 16 ISO-KF	cm ³ (inch ³)								3.7 (0.226)		
4 VCR male	cm ³ (inch ³)								6.1 (0.372)		
4 VCR female	cm ³ (inch ³)								5.6 (0.342)		
8 VCR female	cm ³ (inch ³)								5.1 (0.311)		
Weight											
DN 16 ISO-KF	g								~110		
4 VCR male	g								~123		
4 VCR female	g								~133		
8 VCR female	g								~159		
Maintenance									none		

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

²⁾ Non operation.

³⁾ Increase 10 ... 90% F.S.

DIMENSIONS



www.inficon.com reachus@inficon.com

Due to our continuing program of product improvements, specifications are subject to change without notice.

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