

Porter CDG020D mbar based products

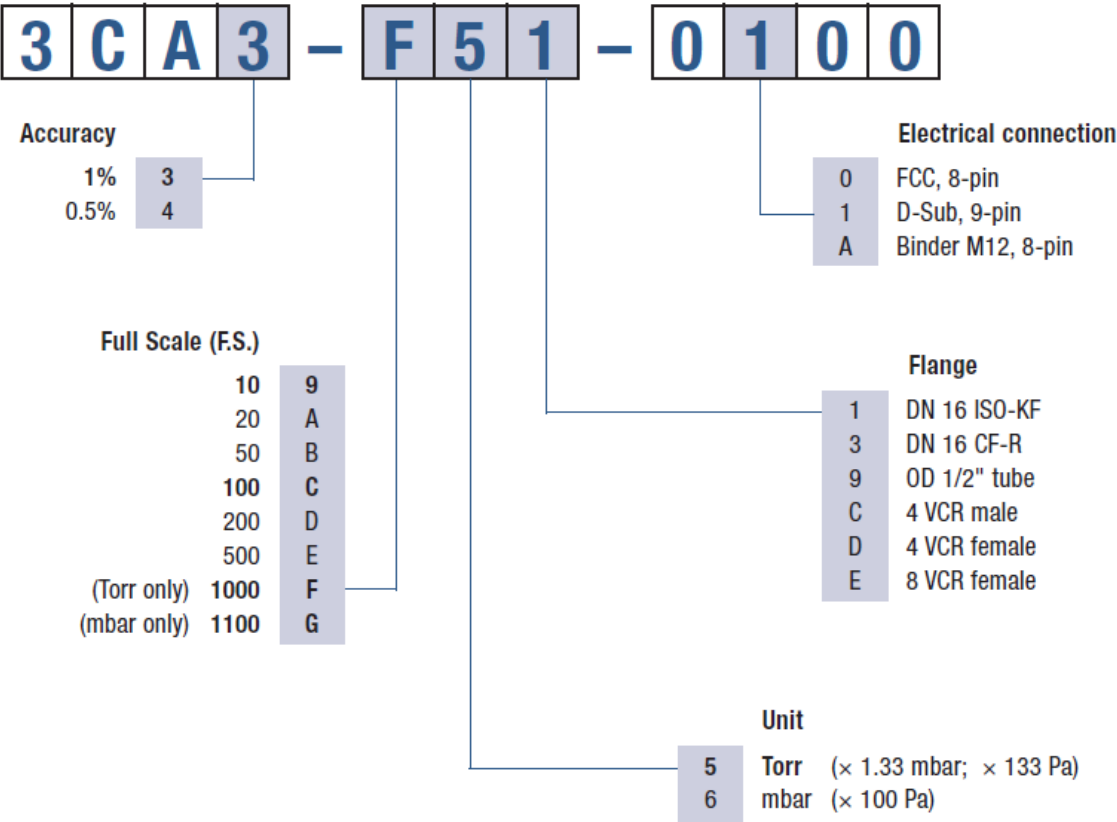
The INFICON Porter CDG020D Capacitance Diaphragm Gauge is a high quality, cost effective, gas type independent absolute pressure sensor. The Porter is designed for stable long time performance in industrial environments. The ceramic sensor provides excellent span stability over many years of maintenance 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.



BENEFITS

- 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

ORDERING INFORMATION



bold = standard products

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

SPECIFICATIONS

Type		1100 mbar	100 mbar	10 mbar
F.S. (Full Scale)	Torr	–	–	–
F.S. (Full Scale)	Pa	110,000	10,000	1,000
F.S. (Full Scale)	mbar	1100	100	10
Accuracy (1)				
3CA3-xxx-xxx	% of reading	1	1	1
3CA4-	% of reading	0.5	0.5	0.5
Temperature effect				
on zero	percent FS/°C	0.02	0.02	0.02
Temperature effect				
on span	% of reading / °C	0.02	0.02	0.02
Resolution	percent FS	0.05	0.05	0.05
Long time stability	percent FS/yr.	0.5	0.5	0.5
Lowest reading	percent FS	0.05	0.05	0.05
Temperature compensated range	°C	+10 ... +50	+10 ... +50	+10 ... +50
Admissible temperature				
Operation (ambient)	°C	0 ... +70	0 ... +70	0 ... +70
Bakeout at flange (2)	°C	≤110	≤110	≤110
Storage	°C	–20 ... +85	–20 ... +85	–20 ... +85
Ambient humidity limits	percent RH	<80%, non-condensing	<80%, non-condensing	<80%, non-condensing
Supply voltage	V (dc)	+13 ... +30	+13 ... +30	+13 ... +30
Power consumption	W	≤0.3	≤0.3	≤0.3
Output signal (analog)	V (dc)	0 ... +10	0 ... +10	0 ... +10
Max. output voltage	V (dc)	10.24	10.24	10.24
Response time (3)	ms	100	100	100
Degree of protection		IP 40	IP 40	IP 40
Standards				
CE conformity		EMC (EN 61000-6-2, EN 61000-6-3), EN 61010-1 & RoHS	EMC (EN 61000-6-2, EN 61000-6-3), EN 61010-1 & RoHS	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	UL 61010-1, CAN/CSA C22.2 No.61010-1	UL 61010-1, CAN/CSA C22.2 No.61010-1
SEMI compliance		SEMI S2	SEMI S2	SEMI S2
Electrical connection				
3CAx-xxx-0000		FCC, 8-pin	FCC, 8-pin	FCC, 8-pin

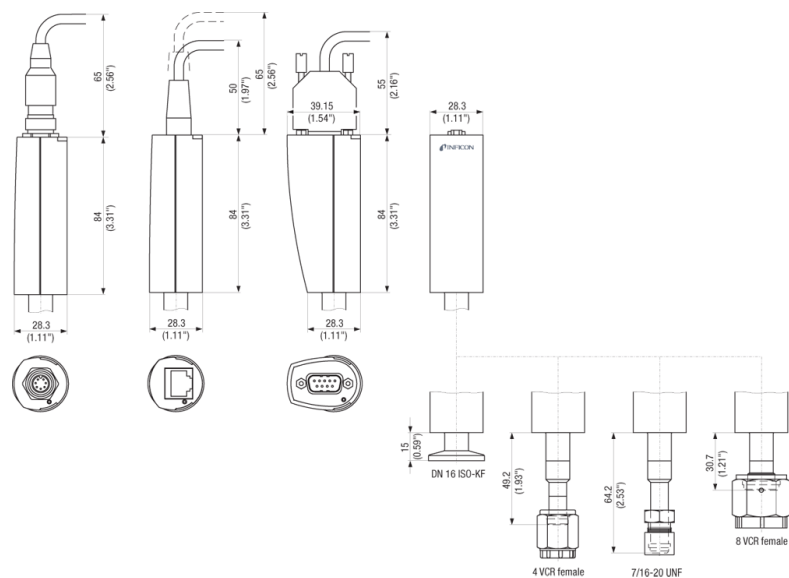
SPECIFICATIONS

Type		1100 mbar	100 mbar	10 mbar
3CAx-xxx-0100		D-Sub, 9-pin, male	D-Sub, 9-pin, male	D-Sub, 9-pin, male
3CAx-xxx-0A00		Binder M12, 8-pin, male	Binder M12, 8-pin, male	Binder M12, 8-pin, male
Materials exposed to vacuum		Aluminum oxide ceramic (Al ₂ O ₃), stainless steel 1.4404 / AISI 316L	Aluminum oxide ceramic (Al ₂ O ₃), stainless steel 1.4404 / AISI 316L	Aluminum oxide ceramic (Al ₂ O ₃), stainless steel 1.4404 / AISI 316L
Tightness	mbar•L/s	<1×10 ⁻⁹	<1×10 ⁻⁹	<1×10 ⁻⁹
Mounting orientation		any	any	any
Internal volume				
I. volume DN 16 ISO-KF	cm ³ (in. ³)	3.7 (0.226)	3.7 (0.226)	3.7 (0.226)
I. volume 4 VCR male	cm ³ (in. ³)	6.1 (0.372)	6.1 (0.372)	6.1 (0.372)
I. volume 4 VCR female	cm ³ (in. ³)	5.6 (0.342)	5.6 (0.342)	5.6 (0.342)
I. volume 8 VCR female	cm ³ (in. ³)	5.1 (0.311)	5.1 (0.311)	5.1 (0.311)
Weight				
Weight DN 16 ISO-KF	g	~110	~110	~110
Weight 4 VCR male	g	~123	~123	~123
Weight 4 VCR female	g	~133	~133	~133
Weight 8 VCR female	g	~159	~159	~159
Maintenance		none	none	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% percent F.S.



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