

CDG025D-X3

SKY® Capacitance Diaphragm Gauges

The INFICON SKY CDG025D Capacitance Diaphragm Gauge line of highly accurate temperature compensated manometers is designed for stable performance in harsh manufacturing tool environments. Advanced digital electronics improve gauge performance and offer easy handling features such as one pushbutton zero function and setpoint adjustment. The corrosion resistant ultra pure ceramic sensor provides excellent zero stability with a long life expectancy of several million pressure cycles, including atmospheric bursts. A unique sensor shielding (patent pending) protects the gauge from process contamination. A robust mechanical design and digital electronics improve EMC compatibility, long term stability and temperature compensation. The CDG025D sets new standards for fast stability after power on and fast recovery from atmospheric pressure exposure.



ADVANTAGES

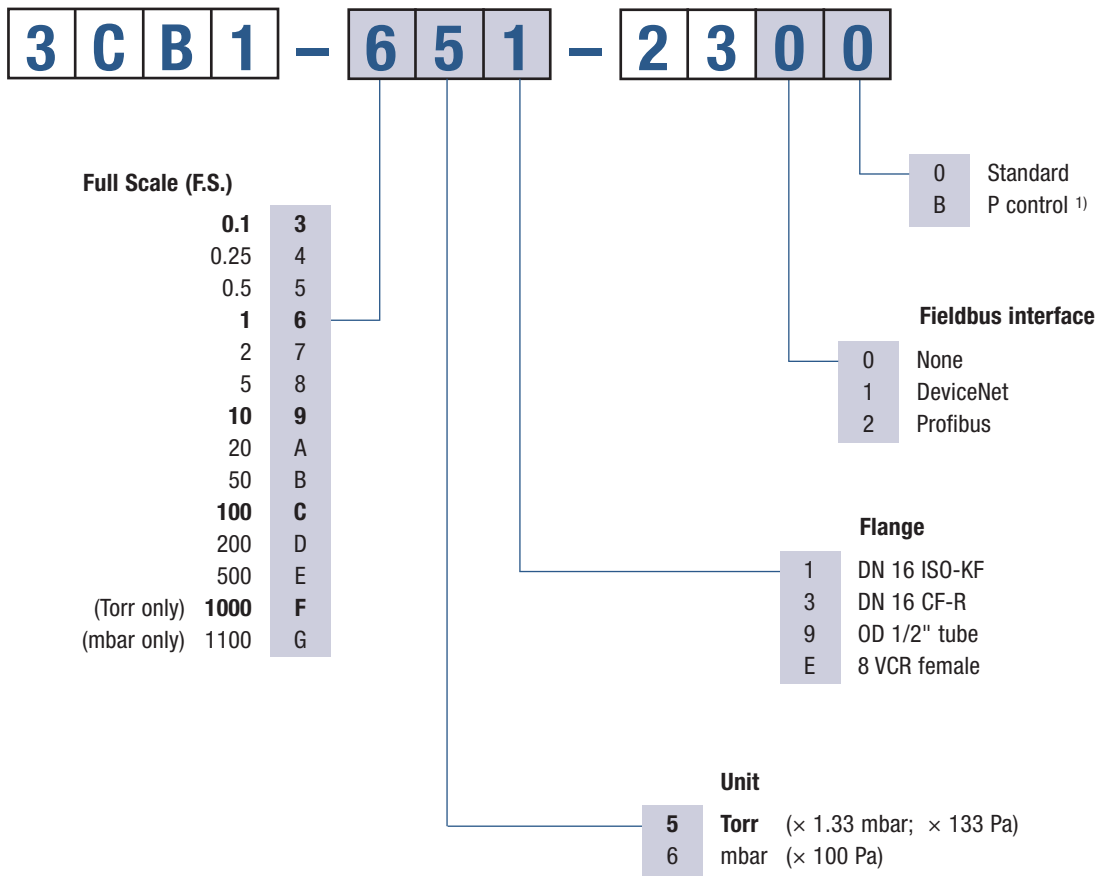
- Full scale ranges from 100 mTorr ... 1000 Torr
- Fast stability after power on
- Fast recovery from atmospheric pressure
- Corrosion resistant ceramic sensor
- Excellent long term signal stability
- Temperature compensated
- Sensor double protected from contamination
- One pushbutton zero function
- Wide range power supply
- 2 setpoints
- RS232 interface
- Clean room compliant

APPLICATIONS

Accurate and fast pressure measurement for demanding applications:

- Semiconductor manufacturing equipment for Etch, CVD, PVD, ALD
- Data storage and display manufacturing equipment
- Industrial vacuum equipment
- General high accuracy pressure measurement

ORDERING INFORMATION



¹⁾ Optimised signal filter setting for pressure control.

bold = standard products

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

SPECIFICATIONS (Torr based standard products)

Measurement Range F.S. (Full Scale)	Torr Pa mbar	1000 133'322 1333	100 13'332 133	10 1'333 13.3	1 133 1.3	0.1 13 0.13
Accuracy ¹⁾	% of reading	0.2	0.2	0.2	0.2	0.5
Temperature effect on zero	% F.S./°C	0.005	0.005	0.005	0.015	0.02
on span	% of reading/°C	0.01	0.01	0.01	0.01	0.03
Resolution	% F.S.	0.003	0.003	0.003	0.003	0.003
Pressure, max.	kPa (absolute)	400	260	260	260	130
Response time ²⁾	ms	30	30	30	30	130
Lowest reading	% F.S.			0.01		
Lowest suggested reading	% F.S.			0.05		
Lowest suggested control pressure	% F.S.			0.5		
Temperature Operation (ambient)	°C			+5 ... +50		
Bakeout at flange ³⁾	°C			≤110		
Storage	°C			-40 ... +65		
Supply voltage	VDC			+14 ... +30		
Power consumption	W			≤1		
Output signal (analog)	VDC			0 ... +10		
Degree of protection				IP 30		
Standards		EN 61000-6-2, EN 61000-6-3, EN 61010, UL 61010-1, CSA 22.2 No.61010-1, RoHS				
Electrical connection		D-sub, 15 pole, male				
Setpoint		two setpoints (SP1, SP2)				
Relay contact	VDC / ADC	30 / ≤0.5				
Hysteresis	% F.S.	1				
Materials exposed to vacuum		Aluminum oxide ceramic (Al2O3), stainless steel (AISI 316L ⁴⁾),				

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

²⁾ Increase 10 ... 90% F.S.

³⁾ Non operation

⁴⁾ 18% Cr, 10% Ni, 3% Mo, 69% Fe

SPECIFICATIONS (Torr based other ranges)

Measurement Range F.S. (Full Scale)	Torr Pa mbar	- 110'000 1100	200 26'664 267	- 10'000 100	20 2'666 26.7	- 1'000 10	- 100 1	0.25 33.3 0.33	- 10 0.1
Accuracy ¹⁾	% of reading	0.2	0.2	0.2	0.2	0.2	0.2	0.25	0.5
Temperature effect on zero	% F.S./°C	0.005	0.005	0.005	0.005	0.005	0.015	0.02	0.02
on span	% of reading/°C	0.01	0.01	0.01	0.01	0.01	0.01	0.03	0.03
Pressure, max.	kPa (absolute)	236	260	260	260	260	260	130	130
Resolution	% F.S.	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
Response time ²⁾	ms	30	30	30	30	30	30	130	130

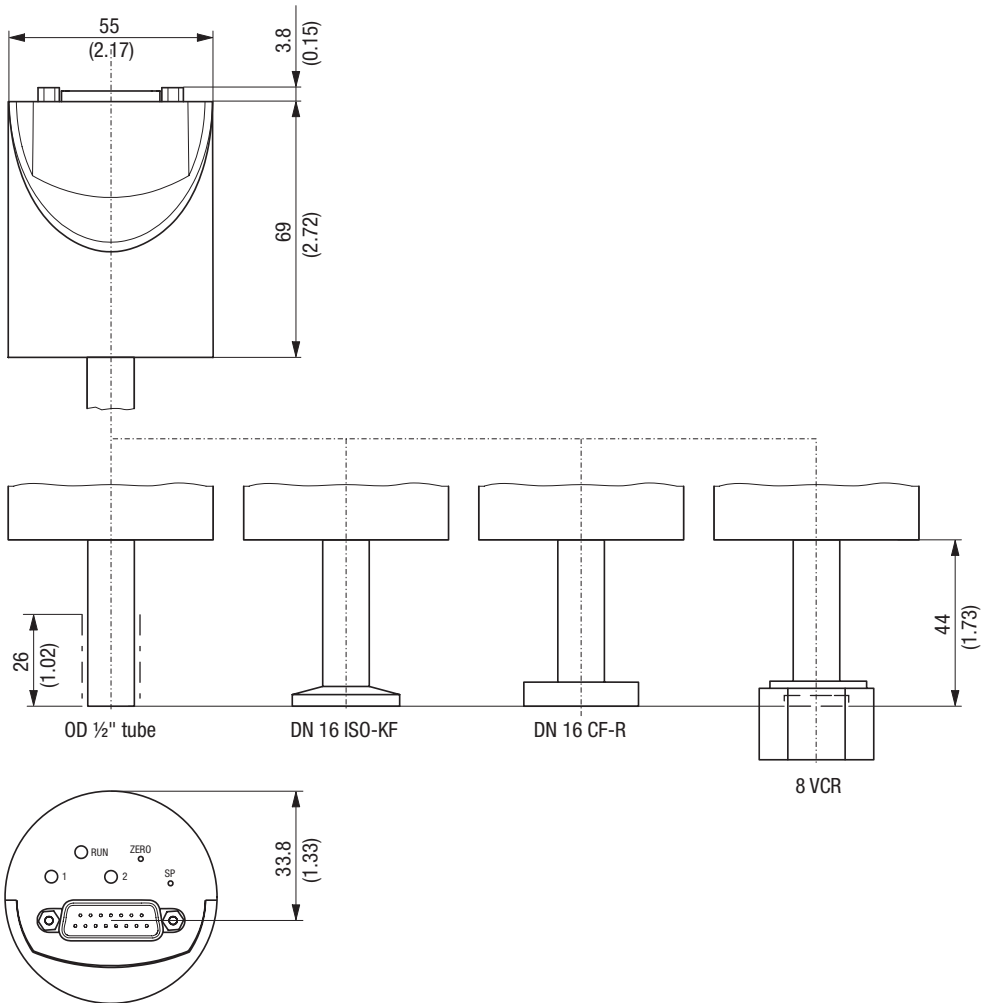
¹⁾ Non-linearity, hysteresis, repeatability at 25 °C ambient operating temperature without temperature effects after 2 hours operation.

²⁾ Increase 10 ... 90% F.S.

Further specifications see table above.

DIMENSIONS, INTERNAL VOLUME, WEIGHT

mm (inch)



		1/2" tube	DN 16 ISO-KF	DN 16 CF-R	8 VCR®
Internal volume	cm ³ (inch ³)	3.6 (0.22)	3.6 (0.22)	3.6 (0.22)	3.6 (0.22)
Weight	g	310	330	350	370



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

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