

## SKY® CDG025D, CDG025D-S

### Ambient Capacitance Diaphragm Gauge

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 push button 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 (FS) 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 protected from contamination
- One push button zero function
- Wide range power supply
- Two setpoints (optional)
- RS232 interface (optional)

#### APPLICATIONS

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



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### ORDERING INFORMATION

#### CDG025D, TEMPERATURE COMPENSATED

Full scale (FS)			Flange type			
Torr	Pascal	mbar	1/2 in. tube	DN 16 ISO-KF	DN 16 CF-R	8 VCR
1000	133,322	1333	375-000	375-001	375-002	375-003
100	13,332	133	376-000	376-001	376-002	376-003
10	1,333	13.3	377-000	377-001	377-002	377-003
1	133	1.3	378-000	378-001	378-002	378-003
0.1	13.3	0.13	379-000	379-001	379-002	379-003

#### CDG025D-S, WITH 2 SETPOINTS AND RS232 INTERFACE, TEMPERATURE COMPENSATED

Full scale (FS)			Flange type			
Torr	Pascal	mbar	1/2 in. tube	DN 16 ISO-KF	DN 16 CF-R	8 VCR
1000	133,322	1333	375-300	375-301	375-302	375-303
-	110,000	1,100	375-500	375-501	375-502	375-503
200	26,664	267	382-300	382-301	382-302	382-303
100	13,332	133	376-300	376-301	376-302	376-303
-	10,000	100	376-500	376-501	376-502	376-503
20	2,666	26.7	383-300	383-301	383-302	383-303
10	1,333	13.3	377-300	377-301	377-302	377-303
-	1,000	10	377-500	377-501	377-502	377-503
1	133	1.3	378-300	378-301	378-302	378-303
-	100	1	378-500	378-501	378-502	378-503
0.25	33.3	0.33	385-300	385-301	385-302	385-303
0.1	13.3	0.13	379-300	379-301	379-302	379-303
-	10	0.1	379-500	379-501	379-502	379-503

bold = standard products

Other flange types on request.

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### SPECIFICATIONS

Full scale (FS)	1000 Torr, 1100 mbar	500 ... 1 Torr / mbar	0.5 ... 0.05Torr / mbar
Accuracy <sup>1)</sup>		0.2 % of reading	0.5 % of reading
Temperature effect			
on zero		0.005 % FS / °C	0.02 % FS / °C
on span		0.01 % of reading / °C	0.03 % of reading / °C
Resolution		0.003 % FS	
Pressure, max.	400 kPa (absolute)	260 kPa (absolute)	130 kPa (absolute)
Response time <sup>2)</sup>		30 ms	130 ms
Lowest reading		0.01 % FS	
Lowest suggested reading		0.05 % FS	
Lowest suggested control pressure		0.5 % FS	
Temperature			
Operation (ambient)		+5 ... +50 °C	
Bakeout at flange <sup>3)</sup>		≤110 °C	
Storage		-40 ... +65 °C	
Supply voltage		+14 ... +30 V (dc)	
Power consumption		≤1 W	
Output signal (analog)		0 ... +10 V (dc)	
Degree of protection		IP 30	
Standards			
CE conformity		EN 61000-6-2, EN 61000-6-3, RoHS	
ETL certification		EN 61010, UL 61010-1, CSA 22.2 No.61010-1	
Electrical connection		D-sub, 15-pin, male	
Setpoint			
Number of setpoints <sup>4)</sup>		2 (SP1, SP2)	
Relay contact		30 / ≤0.5 V (dc) / A (dc)	
Hysteresis		1 % FS	
Materials exposed to vacuum		ceramics (Al <sub>2</sub> O <sub>3</sub> ), Vacon 70, stainless steel (AISI 316L), AgCuTi hard solder, sealing glass	
Internal volume		≤4.0 cm <sup>3</sup>	
Weight		285 ... 342 g	

<sup>1)</sup> Non-linearity, hysteresis, repeatability at 25°C ambient operating temperature without temperature effects after two hours operation

<sup>2)</sup> Increase 10 ... 90% FS

<sup>3)</sup> Non-operation

<sup>4)</sup> CDG025D-S only

# SKY<sup>®</sup> CDG025D, CDG025D-S

## DIMENSIONS

mm (inch)

