



AllCeramic™ CDG025-C

SKY® Capacitance Diaphragm Gauge

All vacuum exposed surfaces of the Sky® AllCeramic™ CDG are constructed of ultra-pure aluminum oxide ceramic, replacing the stainless steel tubing of our traditional CDG. This product is preferred in applications where metal contamination must be avoided.



ADVANTAGES

- No metal contamination
- Marginal zero drift
- Virtually corrosion proof – long sensor life results in reduced downtime thus reducing cost of ownership
- Superior accuracy and repeatability over long period of operation
- Better long term and temperature stability
- Less sensitive to frequent pressure cycles to atmosphere may
- Eliminates isolation valve (depending on operation mode)
- Less susceptible to particles and process by-products due to suprashield
- Fastest warm up time
- Lower cost of investment
- Supply with (+15 VDC or +18.0 to + 26.4 VDC)
- Drop-in replacement of existing CDGs due to interface compatibility

APPLICATIONS

- Etch, CVD and PVD processes
- Doping silicon using implantation or diffusion processes
- Oxidation
- Creation of gate oxide layer in the range of 100 Å
- Creation of barrier layers (Ti, TiN, Ta and TaN as a protection layer between Silicon and Aluminium or Copper)

ORDERING INFORMATION

Type	Flange	Full scale (Pa ¹⁾)				
		133322	13332.2	1333.22	133.322	ATM±13332.2 ²⁾
CDG025-C	1/2" tube	371-250	371-251	371-252	371-253	371-200

¹⁾ Other pressure units on request

²⁾ Pressure difference between atmospheric and gauge pressure

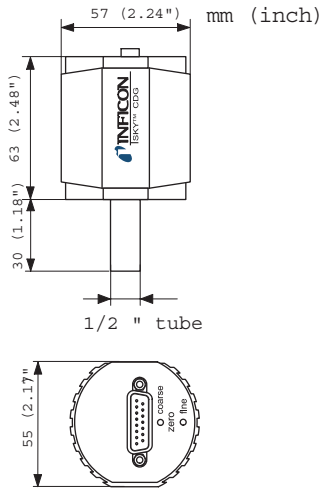
SPECIFICATIONS

Measurement Range F.S. (full scale)	Pa	133322	13332.2	1333.22	133.322	ATM±13332.2
Lowest suggested control pressure	Pa	$6.66 \times 10^{+2}$	$6.66 \times 10^{+1}$	$6.66 \times 10^{+0}$	6.66×10^{-1}	–
Lowest suggested reading	Pa	$6.66 \times 10^{+1}$	$6.66 \times 10^{+0}$	6.66×10^{-1}	6.66×10^{-2}	–
Lowest reading	Pa	$1.33 \times 10^{+1}$	$1.33 \times 10^{+0}$	1.33×10^{-1}	1.33×10^{-2}	–
Accuracy ¹⁾	% of reading	0.2	0.2	0.2	0.2	0.2
Temperature effect on zero	% F.S./°C	0.005	0.005	0.005	0.015	0.05
on span	% of reading/°C	0.01	0.01	0.01	0.01	0.04
Resolution	% F.S.	0.0015	0.0015	0.0015	0.0025	0.01
Temperature Operation (ambient)	°C	+5 ... +50	+5 ... +50	+5 ... +50	+5 ... +50	+5 ... +50
At flange	°C	≤110	≤110	≤110	≤110	≤110
Storage	°C	–40 ... +65	–40 ... +65	–40 ... +65	–40 ... +65	–40 ... +65
Pressure max. (absolute)	kPa	400	267	267	267	267
Power supply Voltage 1 or Voltage 2	VDC	±15 ±5%	±15 ±5%	±15 ±5%	±15 ±5%	±15 ±5%
Power consumption ²⁾	W	≤1.6	≤1.6	≤1.6	≤1.6	≤1.6
Output signal (analog) Measuring range	V	0 ... +10	0 ... +10	0 ... +10	0 ... +10	+5±5
Voltage range	V	–11 ... +11	–11 ... +11	–11 ... +11	–11 ... +11	–11 ... +11
Relation voltage vs. pressure		linear	linear	linear	linear	linear
Response time	ms	30	30	30	100	30
Internal volume	cm ³ (inch ³)	4.5 (0.275)	4.5 (0.275)	4.5 (0.275)	4.5 (0.275)	4.5 (0.275)
Weight	g	250	250	250	250	250
Protective type		IP 30	IP 30	IP 30	IP 30	IP 30
Electrical connection		D-sub, 15 pole, male	D-sub, 15 pole, male	D-sub, 15 pole, male	D-sub, 15 pole, male	D-sub, 15 pole, male
Materials exposed to vacuum		Aluminum oxide ceramic (Al ₂ O ₃), sealing glass				

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

²⁾ Typical value at 25°C ambient temperature after reaching operating temperature.

DIMENSIONS



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