

## SKY® CDG025D 0.1 ... 1000 Torr / mbar

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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 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.



### **BENEFITS**

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- 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 protected from contamination
- One pushbutton zero function
- Wide range power supply

## ORDER INFORMATION

### ORDERING INFORMATION

#### CDG025D, temperature compensated

Full Scale Range			Flange type			
Torr	Pascal	mbar	1/2" 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, with 2 setpoints and RS232 interface, temperature compensated

Full Scale Range			Flange type			
Torr	Pascal	mbar	1/2" 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 and full scale ranges on request.

## SPECIFICATIONS

Type		1000 Torr / 1100 mbar	500 ... 10 Torr / mbar	1 Torr / mbar	0.25 Torr	0.1 Torr / mbar
Accuracy (1)	% of reading	0.2	0.2	0.2	0.25	0.5
Temperature effect						
on zero	percent FS/ °C	0.005	0.005	0.015	0.02	0.02
Temperature effect						
on span	% of reading / °C	0.01	0.01	0.01	0.03	0.03
Resolution	percent FS	0.003	0.003	0.003	0.003	0.003
Pressure, max.	kPa (absolute)	400	260	260	130	130
Response time (2)	ms	30	30	30	130	130
Lowest reading	percent FS	0.01	0.01	0.01	0.01	0.01
Lowest suggested reading	percent FS	0.05	0.05	0.05	0.05	0.05
Lowest suggested control pressure	percent FS	0.5	0.5	0.5	0.5	0.5
Temperature						
Operation (ambient)	°C	+5 ... +50	+5 ... +50	+5 ... +50	+5 ... +50	+5 ... +50
Bakeout at flange (3)	°C	≤110	≤110	≤110	≤110	≤110
Storage	°C	-40 ... +65	-40 ... +65	-40 ... +65	-40 ... +65	-40 ... +65
Supply voltage	V (dc)	+14 ... +30	+14 ... +30	+14 ... +30	+14 ... +30	+14 ... +30
Power consumption	W	≤1	≤1	≤1	≤1	≤1
Output signal (analog)	V (dc)	0 ... +10	0 ... +10	0 ... +10	0 ... +10	0 ... +10
Degree of protection		IP 30	IP 30	IP 30	IP 30	IP 30
Standards						
CE conformity		EN 61000-6-2, EN 61000-6-3, EN 61010 & RoHS	EN 61000-6-2, EN 61000-6-3, EN 61010 & RoHS	EN 61000-6-2, EN 61000-6-3, EN 61010 & RoHS	EN 61000-6-2, EN 61000-6-3, EN 61010 & RoHS	EN 61000-6-2, EN 61000-6-3, EN 61010 & RoHS
ETL certification		UL 61010-1, CSA 22.2 No.61010-1	UL 61010-1, CSA 22.2 No.61010-1	UL 61010-1, CSA 22.2 No.61010-1	UL 61010-1, CSA 22.2 No.61010-1	UL 61010-1, CSA 22.2 No.61010-1
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
Setpoint (4)						
Number of setpoints		2 (SP1,SP2)	2 (SP1,SP2)	2 (SP1,SP2)	2 (SP1,SP2)	2 (SP1,SP2)
Setpoint (4)						

## SPECIFICATIONS

Type		1000 Torr / 1100 mbar	500 ... 10 Torr / mbar	1 Torr / mbar	0.25 Torr	0.1 Torr / mbar
Relay contact	V (dc)	30	30	30	30	30
Setpoint (4)						
Relay contact	A (dc)	≤0.5	≤0.5	≤0.5	≤0.5	≤0.5
Setpoint (4)						
Hysteresis	percent FS	1	1	1	1	1
Materials exposed to vacuum		Aluminum oxide ceramic (Al <sub>2</sub> O <sub>3</sub> ), Vacon 70 <sup>(5)</sup> , stainless steel (AISI 316L <sup>(6)</sup> ), AgCuTi hard solder, sealing glass	Aluminum oxide ceramic (Al <sub>2</sub> O <sub>3</sub> ), Vacon 70 <sup>(5)</sup> , stainless steel (AISI 316L <sup>(6)</sup> ), AgCuTi hard solder, sealing glass	Aluminum oxide ceramic (Al <sub>2</sub> O <sub>3</sub> ), Vacon 70 <sup>(5)</sup> , stainless steel (AISI 316L <sup>(6)</sup> ), AgCuTi hard solder, sealing glass	Aluminum oxide ceramic (Al <sub>2</sub> O <sub>3</sub> ), Vacon 70 <sup>(5)</sup> , stainless steel (AISI 316L <sup>(6)</sup> ), AgCuTi hard solder, sealing glass	Aluminum oxide ceramic (Al <sub>2</sub> O <sub>3</sub> ), Vacon 70 <sup>(5)</sup> , stainless steel (AISI 316L <sup>(6)</sup> ), AgCuTi hard solder, sealing glass
Internal volume						
I. volume 1/2" tube	cm <sup>3</sup> (in. <sup>3</sup> )		3.6 (0.22)	3.6 (0.22)	3.6 (0.22)	3.6 (0.22)
I. volume DN 16 ISO KF	cm <sup>3</sup> (in. <sup>3</sup> )		3.6 (0.22)	3.6 (0.22)	3.6 (0.22)	3.6 (0.22)
I. volume DN 16 CF-R	cm <sup>3</sup> (in. <sup>3</sup> )		3.6 (0.22)	3.6 (0.22)	3.6 (0.22)	3.6 (0.22)
I. volume 8 VCR®	cm <sup>3</sup> (in. <sup>3</sup> )		3.6 (0.22)	3.6 (0.22)	3.6 (0.22)	3.6 (0.22)
1/2" tube	cm <sup>3</sup> (in. <sup>3</sup> )	3.6 (0.22)				
DN 16 ISO KF	cm <sup>3</sup> (in. <sup>3</sup> )	3.6 (0.22)				
DN 16 CF-R	cm <sup>3</sup> (in. <sup>3</sup> )	3.6 (0.22)				
8 VCR®	cm <sup>3</sup> (in. <sup>3</sup> )	3.6 (0.22)				
Weight						
Weight 1/2" tube	g		310	310	310	310
Weight DN 16 ISO KF	g		330	330	330	330
Weight DN 16 CF-R	g		350	350	350	350
Weight 8 VCR®	g		370	370	370	370
1/2" tube	g	310				
DN 16 ISO KF	g	330				
DN 16 CF-R	g	350				
8 VCR®	g	370				

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

(2) Increase 10 ... 90 percent FS

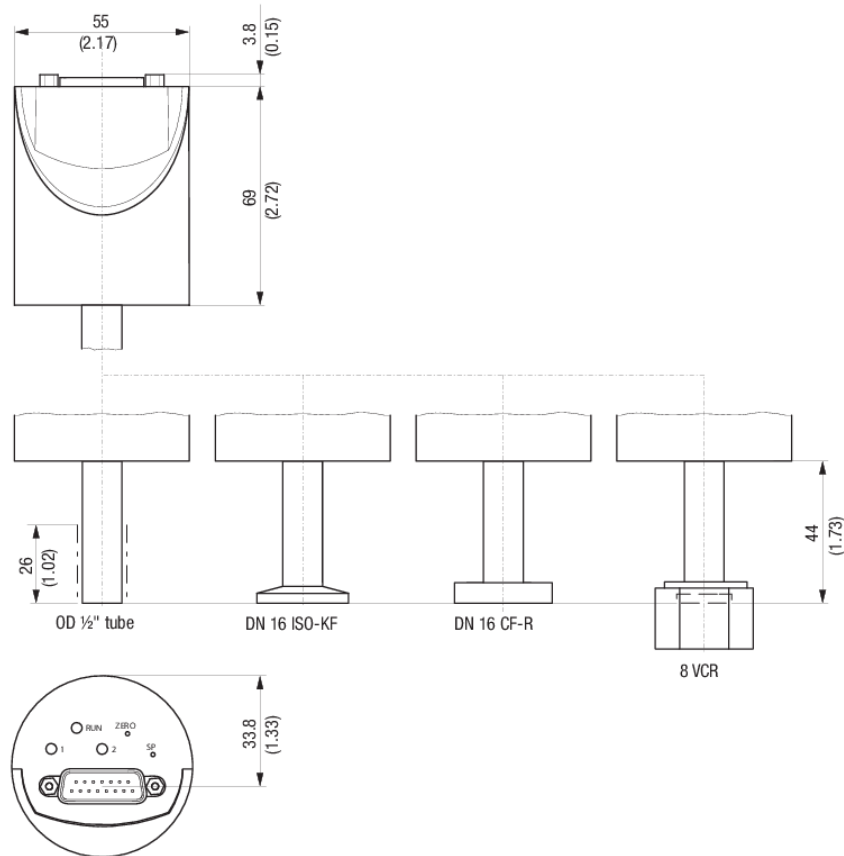
(3) Non operation

(4) CDG025D-S only

(5) 28% Ni, 23% Co, 49% Fe

(6) 18% Cr, 10% Ni, 3% Mo, 69% Fe

## DIMENSIONS



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