

SKY® CDG025D-X3 (F.S.R. 0.1 ... 1000 Torr / mbar)

SKY® CDG025D-X3 - Process Gauge - Temperature Compensated, Environmental Independence

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

ORDER INFORMATION

ORDERING INFORMATION

3

C

B

1

-

6

5

1

-

2

3

0

0

0

B

Standard
P control ¹⁾

Full Scale (FS)

0.1

3

0.25

4

0.5

5

1

6

2

7

5

8

10

9

20

A

50

B

100

C

200

D

500

E

(Torr only)

1000

F

(mbar only)

1100

G

Flange

1

DN 16 ISO-KF

3

DN 16 CF-R

9

OD ½ in. tube

C

4 VCR male

D

4 VCR female

E

8 VCR female

Unit

5

Torr

(× 1.33 mbar; × 133 Pa)

6

mbar

(× 100 Pa)

1)

Optimized signal filter setting for pressure control

bold = standard products

Other flange types 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 / 30 ⁽³⁾
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 (4)	°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-pin, male	D-Sub, 15-pin, male	D-Sub, 15-pin, male	D-Sub, 15-pin, male	D-Sub, 15-pin, male
Setpoint						
Number of setpoints		2 (SP1,SP2)	2 (SP1,SP2)	2 (SP1,SP2)	2 (SP1,SP2)	2 (SP1,SP2)
Setpoint						

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						
Relay contact	A (dc)	≤0.5	≤0.5	≤0.5	≤0.5	≤0.5
Setpoint						
Hysteresis	percent FS	1	1	1	1	1
Materials exposed to vacuum		Aluminum oxide ceramic (Al ₂ O ₃), stainless steel (AISI 316L ⁽⁵⁾)	Aluminum oxide ceramic (Al ₂ O ₃), stainless steel (AISI 316L ⁽⁵⁾)	Aluminum oxide ceramic (Al ₂ O ₃), stainless steel (AISI 316L ⁽⁵⁾)	Aluminum oxide ceramic (Al ₂ O ₃), stainless steel (AISI 316L ⁽⁵⁾)	Aluminum oxide ceramic (Al ₂ O ₃), stainless steel (AISI 316L ⁽⁵⁾)
Internal volume						
I. volume 1/2" tube	cm ³ (in. ³)	3.6 (0.22)	3.6 (0.22)	3.6 (0.22)	3.6 (0.22)	3.6 (0.22)
I. volume DN 16 ISO KF	cm ³ (in. ³)	3.6 (0.22)	3.6 (0.22)	3.6 (0.22)	3.6 (0.22)	3.6 (0.22)
I. volume DN 16 CF-R	cm ³ (in. ³)	3.6 (0.22)	3.6 (0.22)	3.6 (0.22)	3.6 (0.22)	3.6 (0.22)
I. volume 8 VCR®	cm ³ (in. ³)	3.6 (0.22)	3.6 (0.22)	3.6 (0.22)	3.6 (0.22)	3.6 (0.22)
Weight						
Weight 1/2" tube	g	310	310	310	310	310
Weight DN 16 ISO KF	g	330	330	330	330	330
Weight DN 16 CF-R	g	350	350	350	350	350
Weight 8 VCR®	g	370	370	370	370	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

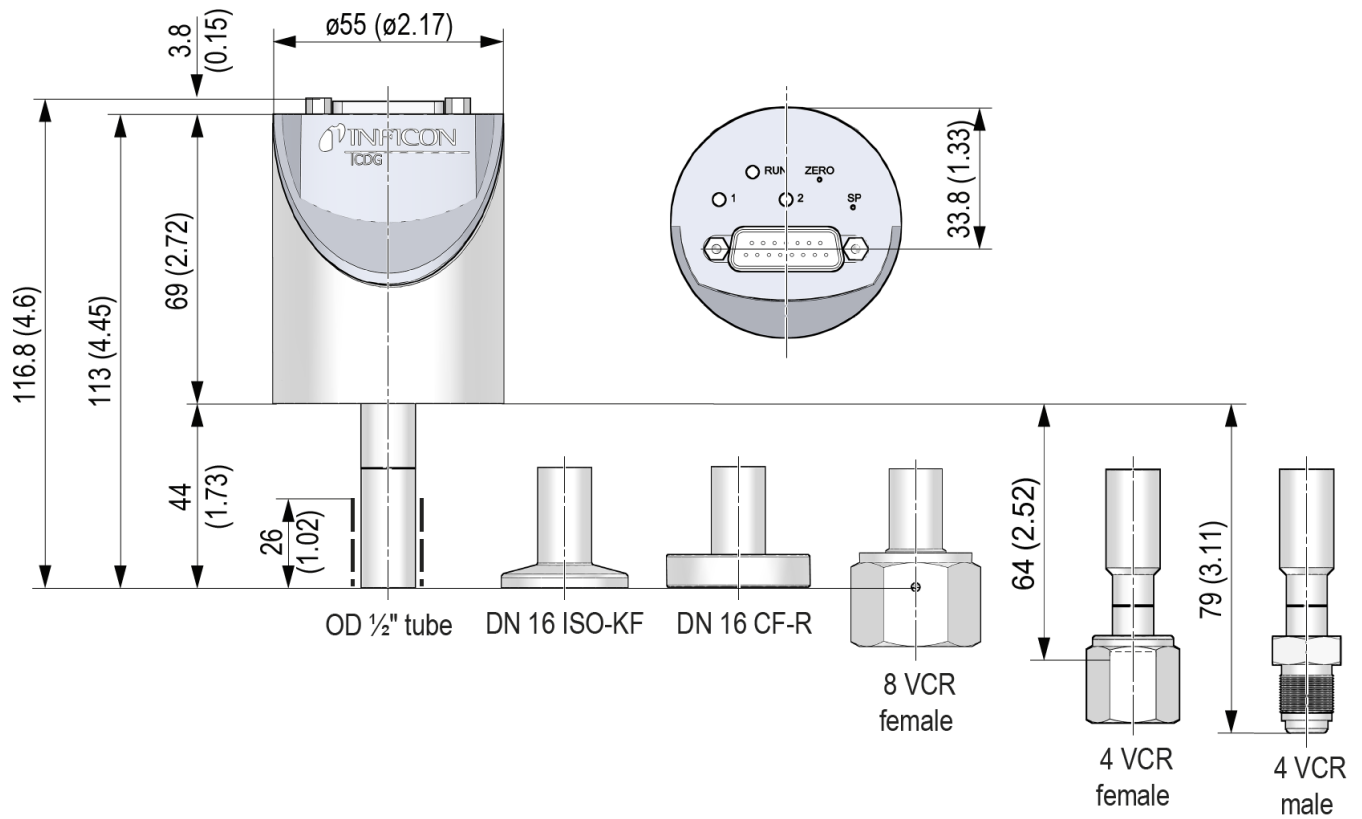
(3) For pressure control type only

(4) Non operation

(5) 18% Cr, 10% Ni, 3% Mo, 69% Fe

DIMENSIONS

mm (inch)



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