

Stripe® CDG100Dhs

Heated Capacitance Diaphragm Gauge

INFICON Stripe high-speed Capacitance Diaphragm Gauges are the fastest, highly accurate vacuum measurement instruments available. With a less than 2 ms response time combined with the EtherCAT fieldbus interface it opens up a total new field of applications. The proven temperature controlled, corrosion resistant, ultra-pure ceramic sensor provides superior span stability over many years paired with state-of-the-art zero stability. Stripe comes with the INFICON patented unique sensor shield which protects the gauge from undesired process by-products. INFICON Stripe using an innovative heating concept, which provides a cool to the touch surface, and its unique speed capabilities, enabling an unprecedented productivity increase, making it the most advanced vacuum instrument of its kind.



ADVANTAGES

- High productivity - faster than 2 ms response time
- Flexible integration - EtherCAT fieldbus
- Long lifetime - proven ceramic sensor
- Forget recalibration - 90 ppm / year full scale stability

APPLICATIONS

- Atomic layer deposition
- High speed process control
- PVD, CVD, Etch
- General high temperature vacuum applications

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ORDERING INFORMATION

3 **C** **D** **9** - **6** **5** **1** - **2** **3** **G** **0**

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 1/2 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)

bold = standard products

Other flange types on request.

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SPECIFICATIONS

Full scale (FS) Torr / mbar	1000 / 1100	500 ... 1	0.5 ... 0.1
Accuracy ¹⁾	0.2 % of reading		0.4 % of reading
Temperature effect			
On zero	0.0025 % FS / °C		0.005 % FS / °C
On span	0.02 % of reading / °C		0.02 % of reading / °C
Pressure, max. (absolute)	400 kPa	260 kPa	130 kPa
Response time ²⁾	2 ... 20 ms		
Resolution	0.003 % FS		
Lowest reading	0.01 % FS		
Lowest suggested			
Reading	0.05 % FS		
Control pressure	0.5 % FS		
Temperature			
Operation (ambient)	+10 ... +50 °C		
Bakeout at flange	≤110 °C		
Storage	-20 ... +85 °C		
Supply voltage	+14 ... +30 V (dc) or ±15 V (±5%)		
Power consumption			
During Heat up	≤16 W		
At operating temperature	≤11 W		
Output signal (analog)	0 ... +10 V (dc)		
Degree of protection	IP 30		
Standards			
CE conformity	EN 61000-6-2, EN 61000-6-3, EN 61010-1 and RoHS		
ETL certification	UL 61010-1, CSA 22.2 No. 61010-1		
SEMI compliance	SEMI S2		
Electrical connection	D-sub, 15-pin, male		
Setpoint			
Number of setpoints	2 (SP1, SP2)		
Relay contact	≤30 V (dc) / ≤0.5 A (dc)		
Hysteresis	1 % FS		
Diagnostic port			
Protocol	USB		
Read	pressure, status, ID		
Set	setpoints, filter, zero adjust, factory reset, DC offset		
Materials exposed to vacuum	ceramics (Al ₂ O ₃), stainless steel (AISI 316L)		
Internal volume	≤6.8 cm ³		
Weight	962 ... 1019 g		

¹⁾ Non-linearity, hysteresis, repeatability at 25°C ambient operating temperature without temperature effects after two hours operation for ≥ 1 Torr and after 4 hours operation for < 1 Torr

²⁾ Increase 10 ... 90% FS

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SPECIFICATION INTERFACES

EtherCAT[®]

Protocol	EtherCAT [®]
Communication standards	Semiconductor Device Profile ETG.5003 Part 1 Common Device Profile ETG.5003 Part 2080 "Specific Device Profile - Vacuum Pressure Gauge"
Process Data	Fixed PDO mapping and configurable PDO mapping
EtherCAT connector	RJ45, 8-pin (socket), IN and OUT
Cable	Shielded Ethernet CAT5e or higher
Cable length	≤100 m (330 ft.)
Data rate	100000 Kbps

DIMENSIONS

