

Stripe™ CDG100Dhs 0.1 ... 1000Torr / mbar

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 – 90ppm/year full scale stability

ORDER INFORMATION

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

Full Scale (F.S.)

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" tube
E	8 VCR female

Unit

5	Torr	(× 1.33 mbar; × 133 Pa)
6	mbar	(× 100 Pa)

bold = standard products

Other flange types and full scale ranges (F.S.) on request.

SPECIFICATIONS

Type		1000 ... 500 Torr / mbar	200 ... 1 Torr / mbar	0.5 ... 0.1 Torr / mbar
Accuracy (1)	% of reading	0.2	0.2	0.4
Temperature effect on zero	percent FS/°C	0.0025	0.0025	0.005
Temperature effect on span	% of reading / °C	0.02	0.02	0.02
Pressure, max.	kPa (absolute)	400	260	130
Resolution	percent FS	0.003	0.003	0.003
Lowest reading	percent FS	0.01	0.01	0.01
Lowest suggested reading	percent FS	0.05	0.05	0.05
Lowest suggested control pressure	percent FS	0.5	0.5	0.5
Temperature				
Operation (ambient)	°C	+10 ... +50	+10 ... +50	+10 ... +50
Bakeout at flange	°C	≤110	≤110	≤110
Storage	°C	-20 ... +85	-20 ... +85	-20 ... +85
Supply voltage		+14 ... +30 VDC or ±15 V (±5%)	+14 ... +30 VDC or ±15 V (±5%)	+14 ... +30 VDC or ±15 V (±5%)
Power consumption				
During Heat up	W	≤16	≤16	≤16
At operating temperature	W	≤11	≤11	≤11
Output signal (analog)	V (dc)	0 ... +10	0 ... +10	0 ... +10
Response time (2)	ms	2	2	2
Degree of protection		IP 30	IP 30	IP 30
Standards				
CE conformity		EN 61000-6-2/-6-3, EN 61010 & RoHS	EN 61000-6-2/-6-3, EN 61010 & RoHS	EN 61000-6-2/-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
SEMI compliance		SEMI S2	SEMI S2	SEMI S2
Electrical connection		D-sub, 15 pole, male	D-sub, 15 pole, male	D-sub, 15 pole, male
Setpoint				
Number of setpoints		2 (SP1,SP2)	2 (SP1,SP2)	2 (SP1,SP2)
Setpoint				
Relay contact	V (dc)	≤30	≤30	≤30

SPECIFICATIONS

Type		1000 ... 500 Torr / mbar	200 ... 1 Torr / mbar	0.5 ... 0.1 Torr / mbar
Setpoint				
Relay contact	A (dc)	≤0.5	≤0.5	≤0.5
Setpoint				
Hysteresis	percent FS	1	1	1
Diagnostic port				
Protocol		USB	USB	USB
Read		pressure, status, ID	pressure, status, ID	pressure, status, ID
Set		set points, filter, zero adjust, factory reset, DC offset	set points, filter, zero adjust, factory reset, DC offset	set points, filter, zero adjust, factory reset, DC offset
Materials exposed to vacuum		Aluminum oxide ceramic (Al ₂ O ₃), stainless steel (AISI 316L ⁽⁴⁾)	Aluminum oxide ceramic (Al ₂ O ₃), stainless steel (AISI 316L ⁽⁴⁾)	Aluminum oxide ceramic (Al ₂ O ₃), stainless steel (AISI 316L ⁽⁴⁾)
Internal volume				
I. volume 1/2" tube	cm ³ (in. ³)	4.2 (0.26)	4.2 (0.26)	4.2 (0.26)
I. volume DN 16 ISO KF	cm ³ (in. ³)	4.2 (0.26)	4.2 (0.26)	4.2 (0.26)
I. volume DN 16 CF-R	cm ³ (in. ³)	4.2 (0.26)	4.2 (0.26)	4.2 (0.26)
I. volume 8 VCR®	cm ³ (in. ³)	4.2 (0.26)	4.2 (0.26)	4.2 (0.26)
Weight				
Weight 1/2" tube	g	837	837	837
Weight DN 16 ISO KF	g	852	852	852
Weight DN 16 CF-R	g	875	875	875
Weight 8 VCR®	g	897	897	897
EtherCAT				
Protocol EtherCAT		protocol specialized for EtherCAT	protocol specialized for EtherCAT	protocol specialized for EtherCAT
Communication standards		ETG.5003.1 S (R) V1.1.0 Common Device ProfileETG.5003.2080 S (R) V1.3.0 Specific Device Profile: Vacuum Gauge	ETG.5003.1 S (R) V1.1.0 Common Device ProfileETG.5003.2080 S (R) V1.3.0 Specific Device Profile: Vacuum Gauge	ETG.5003.1 S (R) V1.1.0 Common Device ProfileETG.5003.2080 S (R) V1.3.0 Specific Device Profile: Vacuum Gauge
Node address		Explicit Device Identification	Explicit Device Identification	Explicit Device Identification

SPECIFICATIONS

Type	1000 ... 500 Torr / mbar	200 ... 1 Torr / mbar	0.5 ... 0.1 Torr / mbar
Physical layer	100BASE-Tx (IEEE 802.3)	100BASE-Tx (IEEE 802.3)	100BASE-Tx (IEEE 802.3)
Digital functions read	pressure, status, ID	pressure, status, ID	pressure, status, ID
Digital functions set	set points, filter, zero adjust, reset, DC offset	set points, filter, zero adjust, reset, DC offset	set points, filter, zero adjust, reset, DC offset
Mailbox (CoE)	SDO requests, responses and information	SDO requests, responses and information	SDO requests, responses and information
Process data	Fixed PDO mapping and configurable PDO mapping	Fixed PDO mapping and configurable PDO mapping	Fixed PDO mapping and configurable PDO mapping
EtherCAT connector	RJ45, 8-pin (socket), IN and OUT	RJ45, 8-pin (socket), IN and OUT	RJ45, 8-pin (socket), IN and OUT
Cable	shielded Ethernet CAT5e or higher	shielded Ethernet CAT5e or higher	shielded Ethernet CAT5e or higher
EtherCAT			
Cable length	m (ft.)	≤100 (330)	≤100 (330)

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

(2) Increase 10 ... 90 percent FS

DIMENSIONS

Dimensions [mm]

