



Stripe™ CDG045Dhs - 45°C (F.S.R. 0.01 ... 1000 Torr / mbar)

Stripe™ CDG045Dhs - 45°C - Smart Inside, Fast Outside

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.



Stripe CDG045Dhs is a proud winner of the prestigious 2014 R&D 100 Award!!

ADVANTAGES

- High productivity – Faster than 2ms response time (FS > 50 mTorr)
- Flexible integration – EtherCAT fieldbus
- Long lifetime – Proven ceramic sensor
- Forget recalibration – 90ppm/year full scale stability

ORDER INFORMATION

ORDERING INFORMATION

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Full Scale (FS)		Flange		Unit	
0.01 ¹⁾²⁾	S	1	DN 16 ISO-KF	5	Torr (× 1.33 mbar; × 133 Pa)
0.02 ¹⁾	1	3	DN 16 CF-R	6	mbar (× 100 Pa)
0.05 ¹⁾	2	9	OD ½ in. tube		
0.1	3	C	4 VCR male		
0.25	4	D	4 VCR female		
0.5	5	E	8 VCR female		
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				

- 1) Mounting orientation: vertical
 2) Torr only

bold = standard products

Other flange types on request.

SPECIFICATIONS

Type		1000Torr / 1100mbar ... 0.05Torr / mbar	0.02 ... 0.01Torr / mbar
Accuracy (1)	% of reading	0.15	-
Precision	% of reading	-	0.2
Temperature effect			
on zero 1000 ... 1 Torr/mbar	percent FS/°C	0.0025	-
on zero 0.5 ... 0.05 Torr/mbar	percent FS/°C	0.005	-
on zero 0.02 ... 0.01 Torr	percent FS/°C	-	0.01
Temperature effect			
on span	% of reading / °C	0.01	0.01
Pressure max			
P max 1000Torr / mbar	kPa (absolute)	400	400
P max 500 ... 1Torr / mbar	kPa (absolute)	260	260
P max 0.5 ... 0.01Torr / mbar	kPa (absolute)	130	130
Resolution	percent FS	0.003	0.003
Lowest reading	percent FS	0.01	0.01
Lowest suggested reading	percent FS	0.05	0.05
Lowest suggested control pressure	percent FS	0.5	0.5
Temperature			
Operation (ambient)	°C	+10 ... +40	+10 ... +40
Bakeout at flange	°C	≤110	≤110
Storage	°C	-20 ... +85	-20 ... +85
Supply voltage		+14 ... +30 VDC or ±15 V (±5%)	+14 ... +30 VDC or ±15 V (±5%)
Power consumption			
During Heat up	W	≤14	≤14
At operating temperature	W	≤9	≤9
Output signal (analog)	V (dc)	0 ... +10	0 ... +10
Measurement rate	kHz	1	1
Response time (2)	ms	2 ... 20	2 ... 20
Signal processing time	ms	2	2
Degree of protection		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

SPECIFICATIONS

Type		1000Torr / 1100mbar ... 0.05Torr / mbar	0.02 ... 0.01Torr / mbar
ETL certification		UL 61010-1, CSA 22.2 No.61010-1	UL 61010-1, CSA 22.2 No.61010-1
SEMI compliance		SEMI S2	SEMI S2
Electrical connection		D-sub, 15 pole, male	D-sub, 15 pole, male
Setpoint			
Number of setpoints		2 (SP1,SP2)	2 (SP1,SP2)
Setpoint			
Relay contact	V (dc)	≤30	≤30
Setpoint			
Relay contact	A (dc)	≤0.5	≤0.5
Setpoint			
Hysteresis	percent FS	1	1
Diagnostic port			
Protocol		USB	USB
Read		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
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⁾)
Internal volume			
I. volume 1/2" tube	cm ³ (in. ³)	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)
I. volume DN 16 CF-R	cm ³ (in. ³)	4.2 (0.26)	4.2 (0.26)
I. volume 8 VCR®	cm ³ (in. ³)	4.2 (0.26)	4.2 (0.26)
Weight			
Weight 1/2" tube	g	837	837
Weight DN 16 ISO KF	g	852	852
Weight DN 16 CF-R	g	875	875
Weight 8 VCR®	g	897	897
EtherCAT			
Protocol EtherCAT		protocol specialized for EtherCAT	protocol specialized for EtherCAT

SPECIFICATIONS

Type	1000Torr / 1100mbar ... 0.05Torr / mbar	0.02 ... 0.01Torr / mbar
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
Node address	Explicit Device Identification	Explicit Device Identification
Physical layer	100BASE-Tx (IEEE 802.3)	100BASE-Tx (IEEE 802.3)
Digital functions read	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
Mailbox (CoE)	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
EtherCAT connector	2 x RJ45, 8-pin (socket), IN and OUT	2 x RJ45, 8-pin (socket), IN and OUT
Cable	shielded Ethernet CAT5e or higher	shielded Ethernet CAT5e or higher
EtherCAT		
Cable length	m (ft.)	≤100 (330)
EtherCAT		
Signal processing time	ms	2

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

(2) Increase 10 ... 90 percent FS

