

Edge[®] CDG025D2 with EtherCAT

Ambient Capacitance Diaphragm Gauge

INFICON temperature compensated Edge CDG025D2 with EtherCAT Capacitance Diaphragm Gauge is a highly accurate vacuum measurement instrument designed for harsh manufacturing environments.

The proven temperature compensated, corrosion resistant, ultra-pure ceramic sensor provides superior span stability over many years paired with state-of-the-art zero stability. Edge comes with the INFICON patented unique sensor shield which protects the gauge from undesired process by-products. Advanced electronics offer a wide range of configurable signal conditioning for all applications with EtherCAT fieldbus interface.



ADVANTAGES

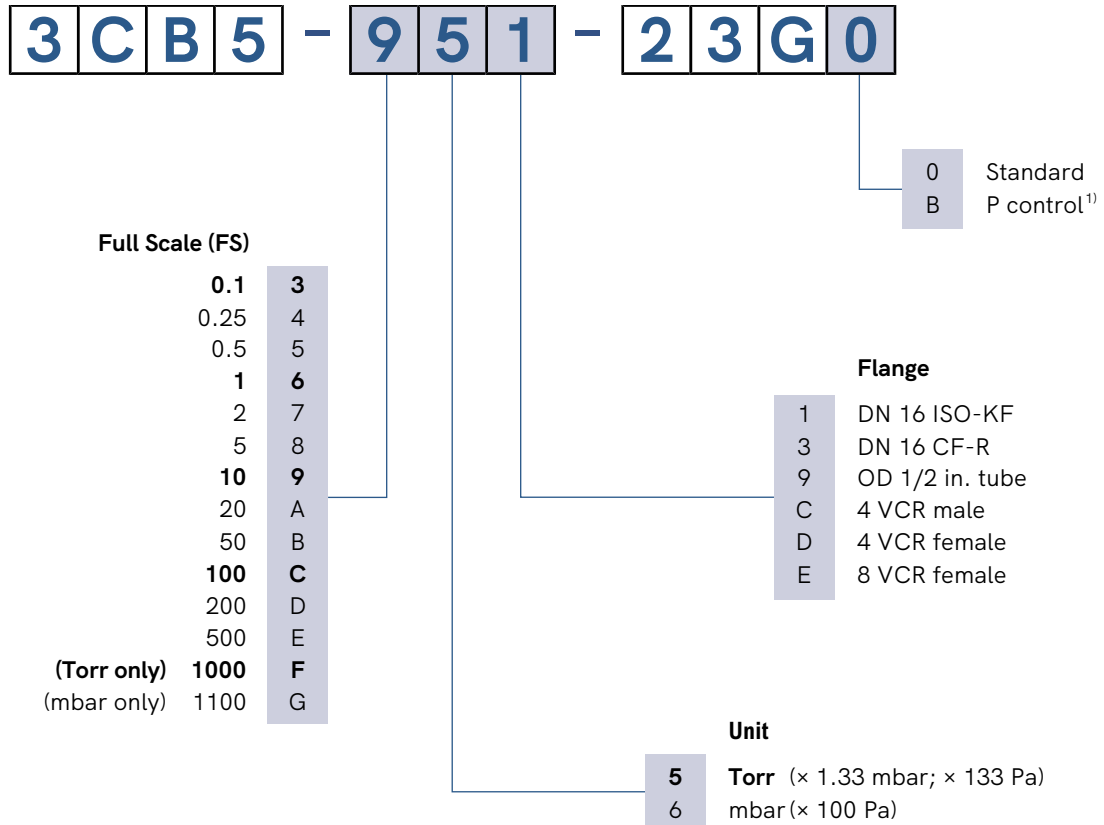
- Easy integration, EtherCAT, wide variety of full scales and flanges, standard with two set points
- Easy one push button or remote signal zero command, zero offset adjustable
- Diagnostic port for quick service and maintenance
- Corrosion resistant ceramic sensor
- Excellent long term signal stability
- Temperature compensated
- Sensor protected from contamination
- Compliance & standards: CE, EN, UL, SEMI, RoHS

APPLICATIONS

- Semiconductor manufacturing equipment for Etch, CVD, PVD, ALD
- Data storage and display manufacturing equipment
- Industrial vacuum equipment
- General high accuracy pressure measurement

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ORDERING INFORMATION



1) Optimized signal filter setting for pressure control

bold = standard products

Other flange types on request.

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SPECIFICATIONS

Full scale (FS) Torr / mbar	1000 / 1100 ... 200	100 ... 5	2 ... 0.5	0.25	0.1
Accuracy ¹⁾	0.2 % of reading		0.25 % of reading		0.5 % of reading
Temperature effect					
on zero	0.005 % FS / °C		0.015 % FS / °C		0.02 % FS / °C
on span	0.01 % of reading / °C		0.01 % of reading / °C		0.03 % of reading / °C
Pressure, max. (absolute)	400 kPa	260kPa		130 kPa	
Resolution	0.003 % FS				
Response time ²⁾	30 ms			130 ms ³⁾	
Lowest reading	0.01 % FS				
Lowest suggested					
Reading	0.05 % FS				
Control pressure	0.5 % FS				
Temperature					
Sensor	25 °C				
Operation (ambient)	+5 ... +50 °C				
Bakeout at flange	≤110 °C				
Storage	-20 ... +65 °C				
Supply voltage	+14 ... +30 V (dc) or ± 15 V (±5%)				
Power consumption					
At operating temperature	<3 W				
Output signal (analog)	0 ... +10 V (dc)				
Degree of protection	IP 40				
Standards					
CE conformity	EN 61000-6-2/-6-3, EN 61010 & 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	RS232-C				
Read	pressure, status, ID				
Set	set points, 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	552 ... 622 g				

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

²⁾ Increase 10 ... 90% FS

³⁾ For pressure control type only

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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

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DIMENSIONS

