

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

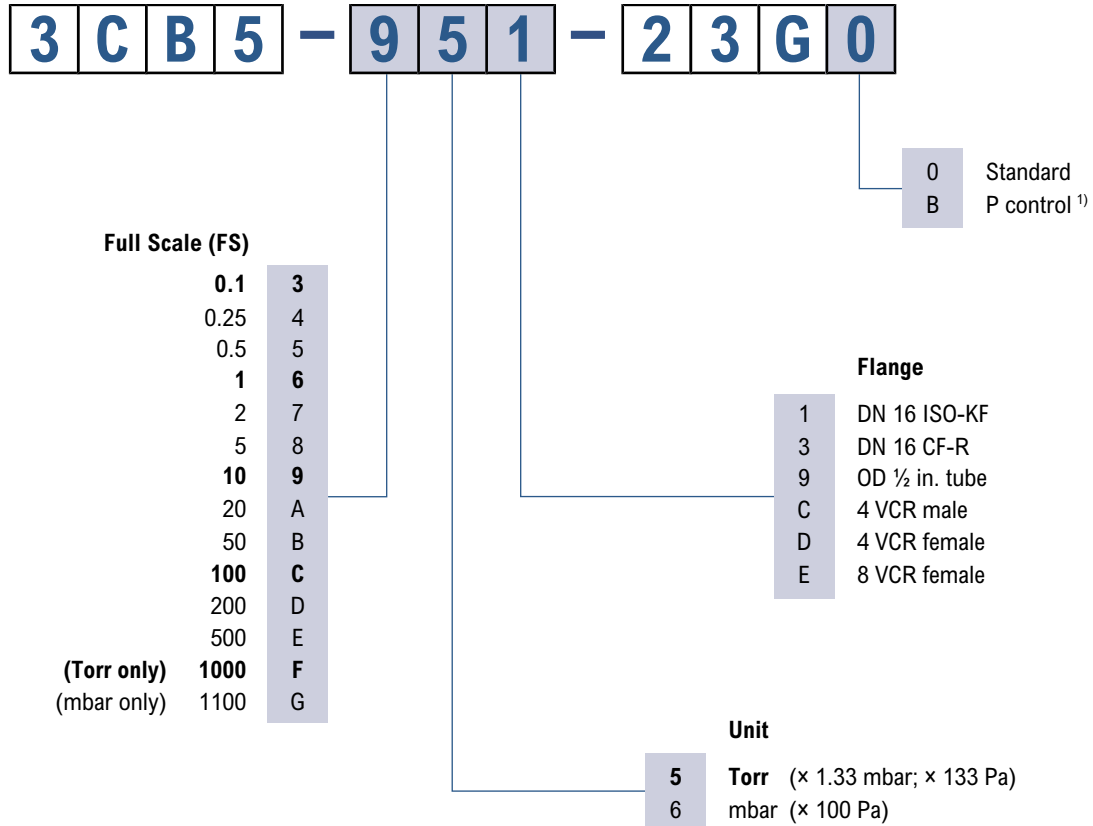
APPLICATIONS

- 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)	1000 Torr, 1100 mbar	500 ... 1 Torr / mbar	0.5 ... 0.05Torr / mbar
Accuracy ¹⁾	0.2 % of reading	0.2 % of reading	0.25 % of reading
Temperature effect			
on zero	0.005 % FS / °C	0.005 % 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	
Lowest reading		0.01 % FS	
Lowest suggested reading		0.05 % FS	
Lowest suggested 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)	
Response time ²⁾	30 ms	130 ms	130/30 ms ³⁾
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

EtherCAT[®]

Protocol	EtherCAT [®] , firmware generation 2.0
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

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EtherCAT [®]	
Cable	Shielded Ethernet CAT5e or higher
Cable length	≤100 m (330 ft.)
Data rate	100000 Kbps

DIMENSIONS

