



CDG160D, CDG200D with DeviceNET

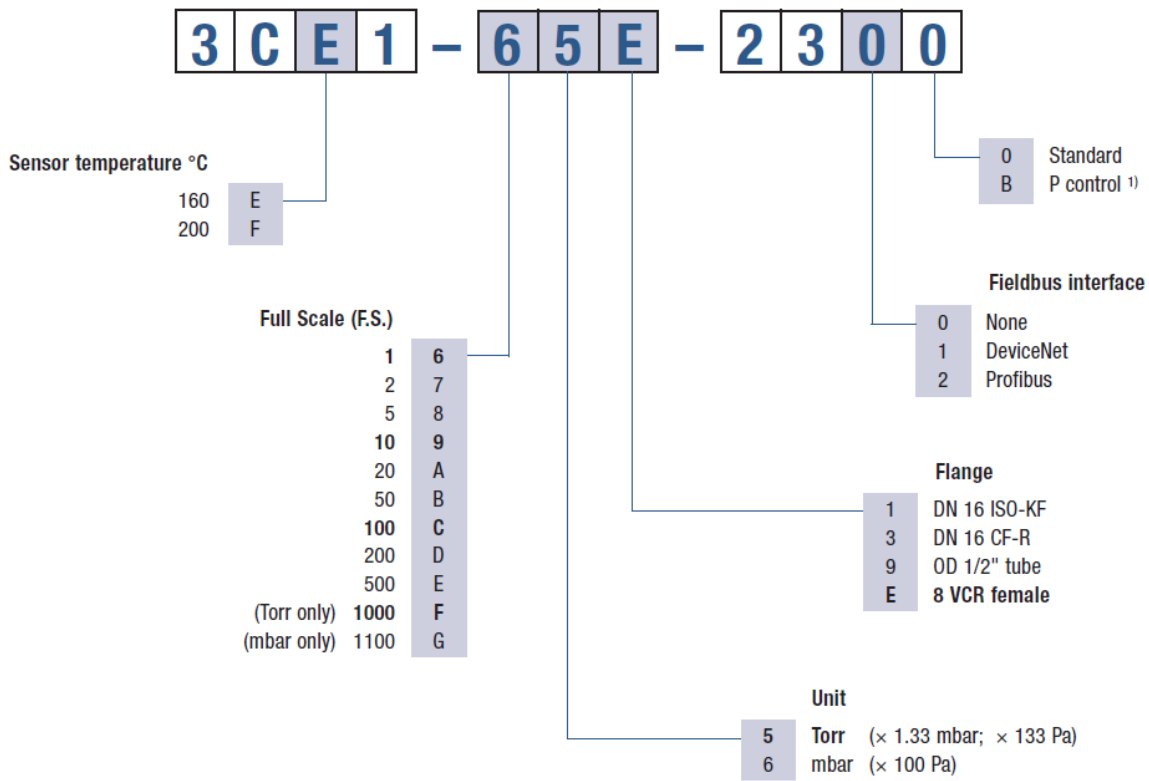
INFICON SKY CDG160D and CDG200D high temperature manometers are your best choice for accurate total pressure measurement and control. CDG160D and CDG200D gauges are temperature controlled at 160 °C respectively 200 °C for superior performance in demanding semiconductor and plasma processes. They are available for full scale ranges from 1 Torr to 1000 Torr, with all common flange types and fieldbus interfaces and provide a linear 0 to 10 V, gas type independent, pressure signal. INFICON capacitance manometers use an ultra pure alumina ceramic diaphragm which is corrosion proof. The advantages of the ceramic sensor are better signal stability, faster recovery from atmosphere, short warm up time and an extraordinary lifetime. INFICON CDG are high quality, cost effective pressure sensors for demanding semiconductor, plasma and vacuum applications.



BENEFITS

- Lower CoO (cost of ownership), 50% faster warm up, energy efficient low power consumption
- Easy integration, wide variety of full scales, flanges and interfaces, standard with two set points
- Easy one push button or remote signal zero command, zero offset adjustable
- Diagnostic port for quick service and maintenance
- Two year warranty, longer life time with heating concept and gauge protection
- No long term recalibration due to excellent signal stability and repeatability, even in harsh plasma applications
- Compliance & standards: CE, EN, UL, SEMI, RoHS

ORDERING INFORMATION



¹⁾ Optimised signal filter setting for pressure control.

bold = standard products

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

SPECIFICATIONS

Type		1000 Torr	100 Torr	10 Torr	1 Torr
F.S. (Full Scale)	Torr	1000	100	10	1
F.S. (Full Scale)	Pa	133,322	13,332	1,333	133
F.S. (Full Scale)	mbar	1333	133	13.3	1.3
Cable length					
125 kbps	m (ft.)				500 (1650)
250 kbps	m (ft.)				250 (825)
500 kbps	m (ft.)				100 (330)
Accuracy (1)	% of reading	0.4	0.4	0.4	0.4
Temperature effect					
on zero	percent FS/°C	0.005	0.005	0.005	0.005
Temperature effect					
on span	% of reading / °C	0.02	0.02	0.02	0.02
Pressure, max.	kPa (absolute)	400	260	260	260
Resolution	percent FS	0.003	0.003	0.003	0.003
Lowest reading	percent FS	0.01	0.01	0.01	0.01
Lowest suggested reading	percent FS	0.05	0.05	0.05	0.05
Lowest suggested control pressure	percent FS	0.5	0.5	0.5	0.5
Temperature					
Operation (ambient)	°C	+10 ... +50	+10 ... +50	+10 ... +50	+10 ... +50
Bakeout at flange	°C	≤200	≤200	≤200	≤200
Storage	°C	-40 ... +65	-40 ... +65	-40 ... +65	-40 ... +65
Supply voltage		+21 ... +30 V DC or ±15 V (±5%)			
Power consumption during heat up CDG160D	W	≤18	≤18	≤18	≤18
Power consumption during heat up CDG200D	W	≤25	≤25	≤25	≤25
Power consumption at operating temperature CDG160D	W	≤12	≤12	≤12	≤12
Power consumption at operating temperature CDG200D	W	≤18	≤18	≤18	≤18
Output signal (analog)	V (dc)	0 ... +10	0 ... +10	0 ... +10	0 ... +10
Response time (2)	ms	30	30	30	30

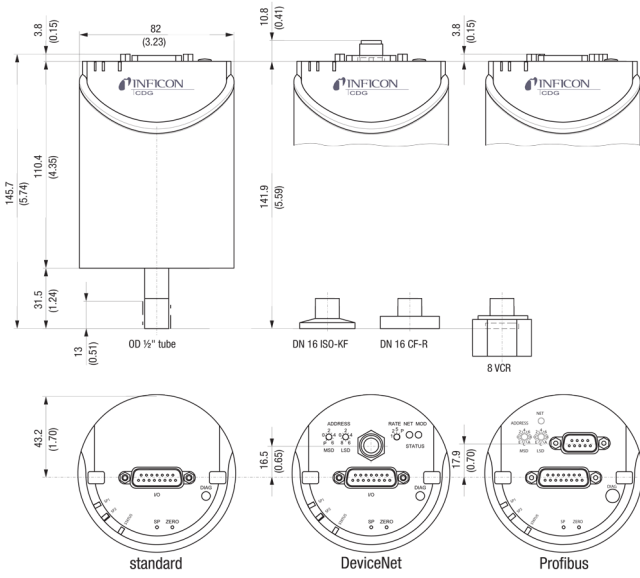
SPECIFICATIONS

Type		1000 Torr	100 Torr	10 Torr	1 Torr
Degree of protection		IP 40	IP 40	IP 40	IP 40
Standards		EN 61000-6-2/-6-3, EN 61010, UL 61010-1, CSA 22.2 No.61010-1, SEMI S-2	EN 61000-6-2/-6-3, EN 61010, UL 61010-1, CSA 22.2 No.61010-1, SEMI S-2	EN 61000-6-2/-6-3, EN 61010, UL 61010-1, CSA 22.2 No.61010-1, SEMI S-2	EN 61000-6-2/-6-3, EN 61010, UL 61010-1, CSA 22.2 No.61010-1, SEMI S-2
Electrical connection		D-Sub, 15-pin, male	D-Sub, 15-pin, male	D-Sub, 15-pin, male	D-Sub, 15-pin, male
Setpoint (SP1,SP2)					
Relay contact	V (dc)	≤30	≤30	≤30	≤30
Setpoint (SP1,SP2)					
Relay contact	A (dc)	≤0.5	≤0.5	≤0.5	≤0.5
Setpoint (SP1,SP2)					
Hysteresis	percent FS	1	1	1	1
Diagnostic port					
Protocol		RS232-C	RS232-C	RS232-C	RS232-C
Read		pressure, status, ID	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	set points, filter, zero adjust, factory reset, DC offset
Materials exposed to vacuum		Aluminum oxide ceramic (Al ₂ O ₃), stainless steel (AISI 316L ⁽³⁾)	Aluminum oxide ceramic (Al ₂ O ₃), stainless steel (AISI 316L ⁽³⁾)	Aluminum oxide ceramic (Al ₂ O ₃), stainless steel (AISI 316L ⁽³⁾)	Aluminum oxide ceramic (Al ₂ O ₃), stainless steel (AISI 316L ⁽³⁾)
Internal volume					
I. volume 1/2" tube	cm ³ (in. ³)	4.2 (0.26)	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)	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)	4.2 (0.26)
I. volume 8 VCR®	cm ³ (in. ³)	4.2 (0.26)	4.2 (0.26)	4.2 (0.26)	4.2 (0.26)
Weight					
Weight 1/2" tube	g	837	837	837	837
Weight DN 16 ISO KF	g	852	852	852	852
Weight DN 16 CF-R	g	875	875	875	875
Weight 8 VCR®	g	897	897	897	897
Specifications					
DeviceNet™		DeviceNet™	DeviceNet™	DeviceNet™	DeviceNet™

SPECIFICATIONS

Type		1000 Torr	100 Torr	10 Torr	1 Torr
Protocol		DeviceNet™, group 2 slave only	DeviceNet™, group 2 slave only	DeviceNet™, group 2 slave only	DeviceNet™, group 2 slave only
Data rate	kBaud	125, 250, 500 by switch or network programmable	125, 250, 500 by switch or network programmable	125, 250, 500 by switch or network programmable	125, 250, 500 by switch or network programmable
Cable length					
125 kbps	m (ft.)	500 (1650)	500 (1650)	500 (1650)	
250 kbps	m (ft.)	250 (825)	250 (825)	250 (825)	
500 kbps	m (ft.)	100 (330)	100 (330)	100 (330)	
MAC ID		address 00 - 63 by switch or network programmable	address 00 - 63 by switch or network programmable	address 00 - 63 by switch or network programmable	address 00 - 63 by switch or network programmable
Digital functions					
read		pressure, status, ID	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	set points, filter, zero adjust, factory reset, DC offset
Specification		DeviceNet™ "Vacuum Gauge Device Profile" (ODVA)	DeviceNet™ "Vacuum Gauge Device Profile" (ODVA)	DeviceNet™ "Vacuum Gauge Device Profile" (ODVA)	DeviceNet™ "Vacuum Gauge Device Profile" (ODVA)
Device type		"VG" vacuum gauge	"VG" vacuum gauge	"VG" vacuum gauge	"VG" vacuum gauge
I / O slave messaging		polling only	polling only	polling only	polling only
Supply voltage for gauge at D-sub connector		+14 ... +30 VDC or ±15 V / ≤12 W	+14 ... +30 VDC or ±15 V / ≤12 W	+14 ... +30 VDC or ±15 V / ≤12 W	+14 ... +30 VDC or ±15 V / ≤12 W
Supply voltage for DeviceNet transceiver at microstyle connector		24 V nom / <2 W (11 ... 25 V)	24 V nom / <2 W (11 ... 25 V)	24 V nom / <2 W (11 ... 25 V)	24 V nom / <2 W (11 ... 25 V)
Connector for DeviceNet™		microstyle, 5 pin, male	microstyle, 5 pin, male	microstyle, 5 pin, male	microstyle, 5 pin, male
Connector for CDG (analog output, supply voltage CDG, setpoints)		D-sub, 15 pin, male	D-sub, 15 pin, male	D-sub, 15 pin, male	D-sub, 15 pin, male
Supply voltage	V (dc)		+21 ... +30 V DC or ±15 V (±5%)	+21 ... +30 V DC or ±15 V (±5%)	+21 ... +30 V DC or ±15 V (±5%)

DIMENSIONS



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