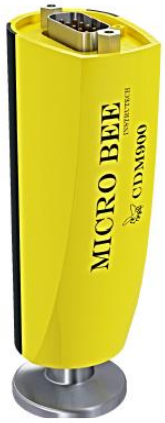
InstruTech®

Series 900 Micro Bee™ Capacitance Diaphragm Vacuum Gauge

Gas Independent Vacuum Gauge	***Outstanding stability with consistent long term performance***
Full scale ranges from 10 to 1000 Torr	***Elegant cost effective design*** ***0.5% and 1% accuracy models***
Ceramic Sensor	***Chemical Resistance*** ***No span adjustment required*** ***No zero adjust in clean applications***
Prolonged lifetime in harsh environments	***Corrosion resistant feed through***
Built-in Controller with 0 to 10 Vdc analog output as well as remote zero adjust capability	***Super compact size and digital electronics provides great flexibility in any system integration***



CDM900 Micro Bee

The CDM900 *Micro Bee™ Capacitance Diaphragm* vacuum gauge is an economical, gas type independent absolute pressure sensor. The CDM900 provides excellent long term stability and performance.

The sensor assembly is constructed of a compact ceramic and metal design resulting in a simple yet rugged sensor suitable for numerous industrial applications.

The ceramic sensor provides outstanding span and zero stability allowing many years of maintenance free operation.

The corrosion resistant sensor material provides excellent temperature compensation capability, thus enhancing the reliability of the pressure measurements.

The CDM900 *Micro Bee* vacuum gauge module provides the basic signal conditioning required to turn the sensor into a complete vacuum pressure measurement instrument. The combination of superior sensor design and enhanced signal processing provides optimal and stabile pressure readings by the instrument.

The built-in controller provides a 0 to 10 Vdc analog output for pressure measurements and allows for local or remote zeroing of the instrument.

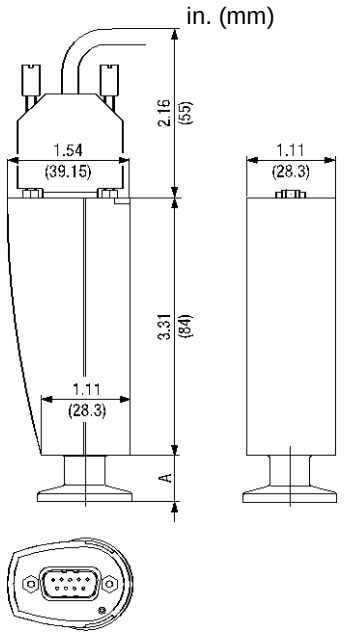
Specifications

full scale (F.S.) ranges - Torr	1000, 500, 200, 100, 50, 20, 10
lowest reading	0.05% of F.S.
accuracy (1)	model A: 1% of reading model B: 0.5% of reading
temperature effect on zero	0.02% F.S./ °C
temperature effect on span	0.02% of reading/°C
resolution	0.05% F.S.
long term stability	0.5% F.S./yr
temperature compensated range	+10 to +50 °C
materials exposed to gases sensor, feedthrough flange, tube	 aluminum oxide ceramic (Al_2O_3) stainless steel AISI 316L
internal gauge volume	1/2 in. Tube: 0.219 in^3 (3.6 cm^3) KF16: 0.226 in^3 (3.7 cm^3) 4 VCR & 8 VCR: 0.342 in^3 (5.6 cm^3)
temperature	operating: 0 to + 70 °C storage: -20 to + 85 °C
bakeout temperature (at flange)	≤ 110 °C (non-operating)
admissible pressure (absolute)	≥ 500 Torr F.S. = 58 psi (4 bar), 50 to 200 Torr F.S. = 43.5 psi (3 bar), 10 to 20 Torr F.S. = 29 psi (2 bar)

humidity	0 to 80% relative humidity, non-condensing
weight	4 to 5.7 oz. (115 to 160 g) , flange/fitting dependent
housing (electronics)	aluminum extrusion
mounting orientation	any
analog output	linear 0 to 10 Vdc
max output signal	+ 10.24 Vdc
response time	100 msec (from 10% to 90% F.S.)
input power	13 to 30 Vdc, 0.3 W protected against power reversal
supply voltage ripple	≤50 mVpp
connector	9-pin D-sub male
CE compliance	EMC (EN61000-6-2, EN61000-6-3, EN61010-1)
environmental	RoHS compliant

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

Fitting	dimension A
1/2 in. Tube	0.59 in. (15.0 mm)
NW16KF	1.20 in. (30.7 mm)
NW25KF	1.39 in. (35.5 mm)
1 1/3 in. Mini-CF	1.28 in. (31.1 mm)
1/4 in. Cajon 4VCR	2.43 in. (61.8 mm)
1/2 in. Cajon 8VCR	1.77 in. (45.0 mm)



Ordering Information ***CDM900 Part Number***

CDM900 # F # U # #

Accuracy
- A= 1% accuracy
- B= 0.5% accuracy

Fitting / Flanges
- A= 1/2 in. Tube
- B= NW16KF
- C= NW25KF
- E = 1 1/3 in. Mini-CF (NW16CF)
- G = 4VCR Female
- H = 8VCR Female

Full Scale (F.S.)
- A = 10 Torr
- B = 20 Torr
- C = 50 Torr
- D = 100 Torr
- E = 200 Torr
- F = 500 Torr
- G = 1000 Torr

Units of Measure
- T= Torr

Example: CDM900BFAUTB (CDM900, 0.5% accuracy, 10 Torr F.S, Torr units of measure, NW16KF fitting)

InstruTech®
1475 S. Fordham Street
Longmont, CO 80503
USA

Phone +1-303-651-0551
Fax +1-303-678-1754
E-mail info@instrutechinc.com
Web www.instrutechinc.com