



UNIQUE VACUUM SOLUTIONS

Diaphragm Vacuum Gauge DVG-1S



Accuracy : 0.75% of reading

Repeatability : 0.1% of reading

Range :0.1 to 1333 mbar / 0 .1 to 1000 Torr

Advantages:

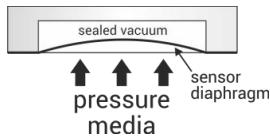
- Ceramic diaphragm sensor with excellent chemical resistance.
- Programmable current output 4-20mA.
- Programmable current output 0-10V DC.
- Has built in temperature compensation circuit.
- Robust SS316 design.
- IP67 enclosure for harsh environment.
- Optional SSR available for setpoint outputs.

Applications:

- PVD coating
- Mass spectrometers.
- Electron microscope.
- Fore-line vacuum.
- Freeze drying.
- Sterilisation process.
- Load lock systems.
- Vacuum furnaces.

With the high accuracy and tested repeatability standards of this DVG-1S sensor, this is the best cost effective replacement solution for conventional capacitance manometers with measurement from 1333 down to 0.1 mbar.

how it works?



The DVG-1S is based on a ceramic aluminum oxide sensor diaphragm that converts the applied pressure to an electric signal. The sensor element is a dry cell diaphragm design.

Measurement performance

These DVG-1S transmitters are calibrated and compensated for ambient temperature drifts. This DVG-1S comes with standard factory calibration certificate, we also provide calibration certificates traceable to standards as optional.

Analog and digital options

The DVG-1S is available with industry standard analog 4-20 mA current output or 0-10 VDC voltage output. The analog output can be scaled and configured using our interface software.

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#57, 8th cross, 1st B cross, Doddanna Industrial Estate, Vishwaneedam post, near Peenya 2nd stage, Bangalore-560091.

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TECHNICAL DATA

MODEL	DVG-1S
SPECIFICATIONS	
Environmental conditions for operation	<p>Measuring range : 3 decades</p> <p>Accuracy of reading : 0.75% of reading</p> <p>Accuracy of full-scale : +/- 0.1 % BFSL</p> <p>Repeatability : 0.1% of reading</p> <p>Thermal drift (offset, base: 22 °C) : +/- 0.01%/°C of full-scale (from +10 to +50°C)</p> <p>Output signal (Voltage version) : 0-10 VDC (Programmable scaling)</p> <p>Output resolution (Voltage version) : 16 bit / 150 µV</p> <p>Output signal (Current version) : 4-20 mA (Programmable scaling)</p> <p>Output resolution (Current version) : 16 bit / 244 nA</p> <p>Solid-state relay contact rating (optional) : 250 mA, 50 VDC / VAC peak</p>
Power supply	<p>Operating ambient temperature : -40 to +100 °C</p> <p>Media temperature at flange : -40 to +125 °C</p> <p>Storage ambient temperature : -40 to +125 °C</p> <p>Maximum media pressure : 2000 mbar / 1500 Torr</p> <p>Burst media pressure : 3000 mbar / 2250 Torr</p> <p>Mounting position : Any</p> <p>Protection rating, EN 60529/A2:2013 : IP67, IP65</p> <p>Humidity, IEC 68-2-38 : 98%, non-condensing</p>
Materials	<p>Supply voltage : 12-30 VDC</p> <p>Power consumption (voltage version) : 240 mW (max)</p> <p>Power consumption (current version) : 600 mW (max)</p> <p>Reverse polarity protection : Yes</p> <p>Oversupply protection : Yes</p> <p>Internal fuse : 100 mA (thermal recoverable)</p> <p>Enclosure : SS 1.4404 / AISI 316L</p> <p>Electrical connector DIN 175301-803A : PA Nylon</p> <p>Electrical connector M12 IEC 61076-2-101 : PA Nylon, Nickel plated Zinc alloy</p> <p>Process connection (media wetted) : SS 1.4404 / AISI 316L</p> <p>Sensor diaphragm (media wetted) : Ceramic Al₂O₃ 96%</p> <p>Sealing (media wetted) : FKM (Viton®) or optional FFKM</p> <p>Process leak tightness (ISO 27895:2009) : <1·10⁻⁹ mbar·l/sec.</p>

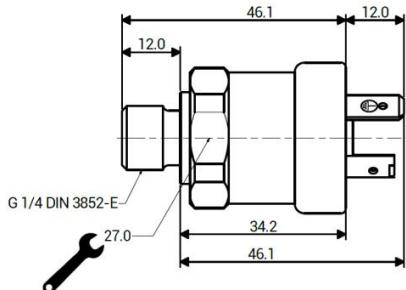
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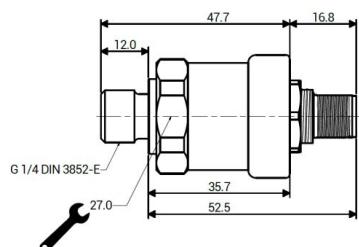


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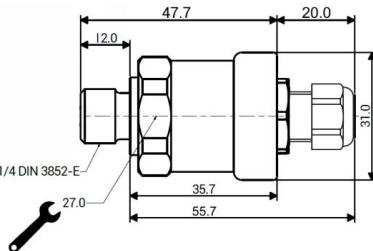
Dimensions (in mm)



3 pin + PE DIN EN 175301 -803 A
flying leads



4 pin M12 connector IEC 61076-2-101



With fixed cable and

Ordering Information:

CVG-1-	1	0	1	1	0	1	1	1
Process connection								
DIN 3852-E, G $\frac{1}{4}$ " A	1							
DN16KF	8							
Range								
0 ... 200 mbar	0	2						
0 ... 500 mbar	0	5						
0 ... 1000 mbar	0	6						
0 ... 200 Torr	1	2						
0 ... 500 Torr	1	5						
0 ... 1000 Torr	1	6						
Sensor type								
Gauge			1					
Absolute			2					
Connection								
M12 x 1, 4 pin	1							
DIN175301-803 Form A	2							
Cable 1 meter (3.3 feet)	3							
Cable 3 meter (9.9 feet)	4							
Cable 5 meter (16.4 feet)	5							
M12 x 1, 4 p. + mating connector	6							
DIN175301-803 Form A + mating connector	7							
Setpoints								
None	0							
On/Off Solid State Relay	1							
Digital interface								
S4-Connect™	1							
Analog Output								
0-10 VDC linear	1							
0-5 VDC linear	2							
1-10 VDC linear	3							
4-20 mA linear	4							
1-5 VDC linear	5							
1-6 VDC linear	6							
0.5-4.5 VDC linear	7							

Our Products In Vacuum Measurements Are :

DPRG
FLEXA
Hybrid
DVG
OnePirani
Mercury McLeod

Our Expertise Is In :

Helium Leak test Systems
Vacuum Measuring Gauges
High Vacuum Systems
Vacuum filtration solutions
High vacuum components
Vacuum Gauges & Helium
Std leak Calibration Services
Helium Leak testing services

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