PRODUCT DATA SHEET

ACTIVE STRAIN GAUGE (ASG2)

edwardsvacuum.com

The Edwards Active Strain Gauge (ASG2) is a rugged, corrosion resistant diaphragm gauge which provides accurate, gas independent measurement from 2000 mbar to 1 mbar or 1000 mbar to 1 mbar.



It can be used as a stand-alone transducer allowing OEMs and system builders to develop low cost, flexible solutions to their vacuum instrumentation needs.

Alternatively, it can be connected to an Edwards controller with an adapter cable where it can be combined with many other sensor types to provide a complete vacuum instrument solution.

Features and benefits

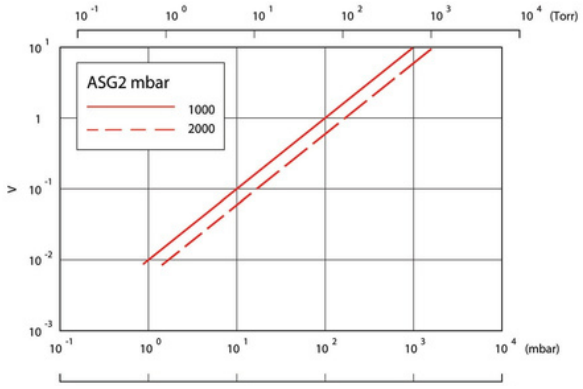
- Drive electronics combined in the gauge head
  - Simplifies system design
  - Saves valuable rack space
- Wide range, regulated internal power supply
  - Runs from standard d.c. power supplies +12 to +32 V
  - Tolerant to voltage fluctuations
- Standard analogue output 0 to 10 V d.c.
  - Easy to interface with a computer or PLC
- High accuracy and stability
  - Accuracy ±0.2% full scale
  - Stability 0.1% full scale
- Corrosion resistant, rugged design
  - Material exposed to vacuum is stainless steel 316L and Hastelloy C276
  - Enclosure rating IP65
- Gas independent measurement
  - Pressure measurement is completely independent of gas type making this gauge ideal for applications where gases other than nitrogen are used
- Excellent high pressure resolution
  - Ability to resolve 1 mbar changes in system pressure even at pressures near atmospheric makes the gauge ideal for monitoring large slow-pumping systems
- Part of the Active gauge range
  - Standard supply requirements and output voltage allow simple integration into systems using Active pirani, thermocouple, inverted magnetron, strain, wide range and ionization gauges. All of these are compatible with Edwards controllers

TECHNICAL DATA

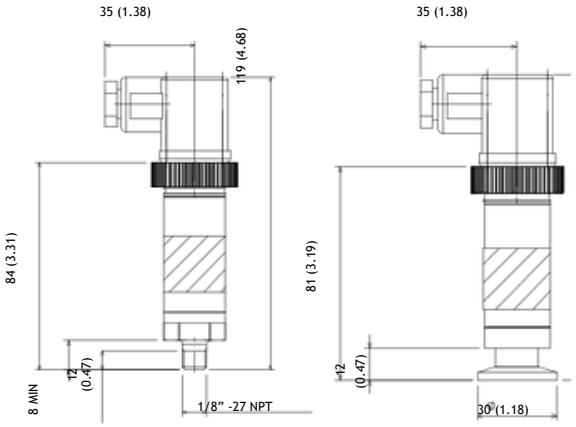
Full scale pressure range	ASG2-1000, 1000 to 1 mbar
	ASG2-2000, 2000 to 1 mbar
Accuracy	±0.2% full scale
Stability	0.1% full scale
Temperature coefficient	0.03% full scale per °C
Power supply	12 to 32 V
Maximum power	0.1 W
Output signal	0 to 10 V d.c. linear
Output impedance	51 Ω
Minimum load	> 10 k Ω
Adjustments	Set full scale and set zero

Temperature range		
Compensated	-10 to +50 °C	
Operating / Storage	-40 to +80 °C	
Materials exposed to vacuum	Stainless steel 316L, Hastelloy C276	
Internal volume	NW16	2.78 cm³
	1/8" NTP	2.74 cm³
Weight	NW16	150 g
	1/8" NTP	130 g
Electrical connector	4 pin DIN 43650 Form A	
Vacuum fitting	⅛" NPT male or NW16	
Enclosure rating	IP 65	

OUTPUT CHARACTERISTICS



DIMENSIONS - mm (inch)



ORDERING INFORMATION

Product description	Order number	Order no. (certificated)*
ASG2 NW16 1000 mbar	D35736000	D3573600C
ASG2 NW16 2000 mbar	D35738000	D3573800C
ASG2 ⅛" NPT 1000 mbar	D35735000	D3573500C
ASG2 ⅛" NPT 2000 mbar	D35737000	D3573700C
ASG2 adaptor cable (0.5 m) 4 pin DIN43650 form A to FCC68	D40003160	

*Supplied with a certificate of calibration traceable to national standards

Product description	Order number
Cable assemblies (inc FCC68 compatible connectors at both ends)	
0.5 m	D40001005
1 m	D40001010
3 m	D40001030
5 m	D40001050
10 m	D40001100
15 m	D40001150
25 m	D40001250
50 m	D40001500
100 m	D40001999

Publication Number: 3601 0184 01
© Edwards Limited 2024. All rights reserved Edwards and the Edwards logo are trademarks of Edwards Limited
Whilst we make every effort to ensure that we accurately describe our products and services, we give no guarantee as to the accuracy or completeness of any information provided in this datasheet.
Edwards Ltd, registered in England and Wales
No. 6124750, registered office: Innovation Drive, Burgess Hill, West Sussex, RH15 9TW, UK.