



PRODUCT DATA

Active Strain Gauge

Range: 2000 to 1 mbar



The BOC Edwards Active Strain Gauge (ASG) is a rugged, corrosion resistant diaphragm gauge which provides accurate, gas independent measurement from 2000 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 the Active Gauge Controller where it can be combined with many other sensor types to provide a complete vacuum instrument solution.

Features & Benefits

- Drive electronics combined in the gauge head
 - Simplifies system design
 - Saves valuable rack space
- Wide range, regulated internal power supply
 - Runs from standard dc power supplies +13.5 to +36V
 - Tolerant to voltage fluctuations
- Standard analogue output 0 to 10V dc
 - Easy to interface with a computer or PLC
- High accuracy and stability
 - Accuracy $\pm 0.2\%$ full scale
 - Stability 0.2% full scale
- Corrosion resistant, rugged design
 - Only material exposed to vacuum is stainless steel 316
 - 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 the Active Gauge Controller, a multi-channel digital display and controller

TECHNICAL DATA

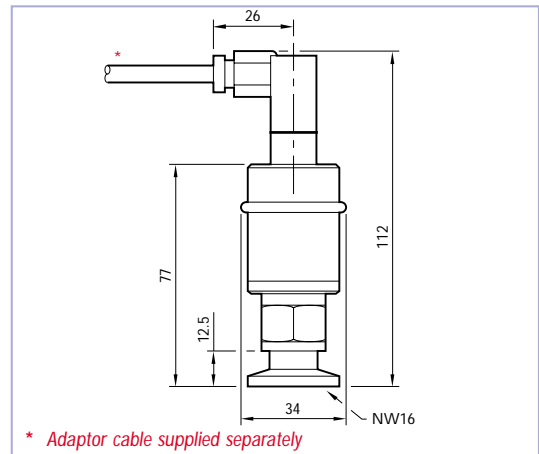
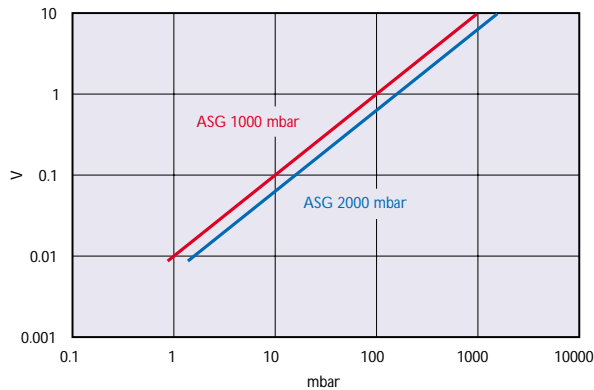
SPECIFICATIONS

| | | | |
|------------------------------|-----------------------------|-------------------------------|------------------------------|
| • Full scale pressure ranges | 2000, 1000 mbar | • Temperature Range | |
| • Accuracy | ±0.2% full scale | Compensated | +10 to +50°C |
| • Stability | 0.2% full scale | Operating | -20 to +90°C |
| • Temperature coefficient | 0.05% full scale per °C | • Materials exposed to vacuum | Stainless steel 316 |
| • Power Supply | + 13.5 +36V dc | • Internal Volume | 1.25cm ³ |
| • Power Consumption | 0.4W | • Weight | 120g |
| • Output Signal | | • Electrical connector | Miniature 4 pin Din |
| Operating | 0 to 10V dc linear | • Vacuum fitting | 1/8" NPT male or NW16 |
| Output impedance | >200Ω | • Standards | |
| Minimum load | 50kΩ | Electronic design | EN 61010-1 |
| Response Speed | 5 msec | Electromagnetic compatibility | EN 61326 (Class B Emissions) |
| Adjustments | Set full scale and set zero | Enclosure rating | IP 65 |

PIN ALLOCATION

| Miniature Din (Gauge Head only) | | FCC-68 (with adaptor cable) | |
|---------------------------------|-----------------------|-----------------------------|-----------------------|
| 1 | Power supply positive | 1 | Power supply positive |
| 2 | Power supply common | 2 | Power supply common |
| 3 | Gauge output | 3 | Gauge output |
| 4 | Signal common | 4 | Gauge identification |
| | | 5 | Signal common |
| | | 6 | No connection |
| | | 7 | No connection |
| | | 8 | No connection |

OUTPUT CHARACTERISTICS / DIMENSIONS (mm)



ORDERING INFORMATION

| PRODUCT DESCRIPTION | ORDERING INFORMATION | PRODUCT DESCRIPTION | ORDERING INFORMATION |
|-------------------------------|----------------------|--|----------------------|
| ASG NW16 1000 mbar | D357-26-000 | Cable assemblies (include FCC68 compatible connectors at both ends) | |
| ASG NW16 2000 mbar | D357-28-000 | 0.5m | D400-01-005 |
| ASG 1/8" NPT 1000 mbar | D357-25-000 | 1m | D400-01-010 |
| ASG 1/8" NPT 2000 mbar | D357-27-000 | 3m | D400-01-030 |
| ASG adaptor cable (0.5m) | | 5m | D400-01-050 |
| miniature DIN to female FCC68 | D400-03-060 | 10m | D400-01-100 |
| | | 15m | D400-01-150 |
| | | 25m | D400-01-250 |
| | | 50m | D400-01-500 |
| | | 100m | D400-01-999 |
| | | Non standard lengths and screened cables available on request | |

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