



## PRODUCT DATA

# Active Inverted Magnetron Gauge

Range:  $10^{-2}$  to  $10^{-9}$  mbar



The BOC Edwards Active Inverted Magnetron Gauges (AIM) combine the gauge-head and controller in one compact Active unit. These gauges have proved to be rugged and reliable in a wide range of applications ranging from scientific instruments to industrial processes.

## Features & Benefits

- Drive electronics combined in the gauge head
  - Reduces the system cost
  - 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 and gauge identifier
  - Easy to interface with a computer or plc
  - Fault output indication
- Low output impedance and integral Faraday shield
  - Provides high level of noise immunity
  - Permits long cable runs (up to 100m)
- Interchangeable body tube
  - Rapid tube replacement without pre-calibration
  - Electrode service kit allows user cleaning and maintenance
- Bakeable Tube
  - The DN40CF tube is bakeable to 300°C (with the electronics removed)
- Unique striker design
  - Ensures rapid striking even at high vacuum or in contaminating conditions
- Low external magnetic field versions (SL and XL) for sensitive analytical instruments (patented)

# TECHNICAL DATA

## SPECIFICATIONS

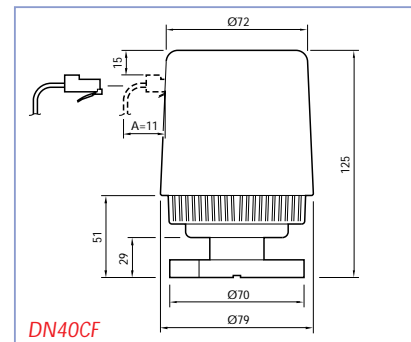
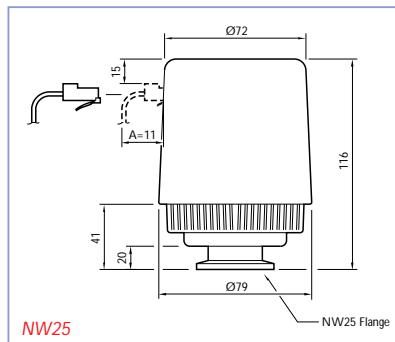
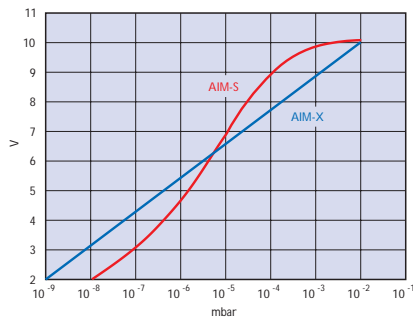
<ul style="list-style-type: none"> <li>Pressure range                     <ul style="list-style-type: none"> <li>AIM-S 10<sup>-2</sup> to 10<sup>-8</sup> mbar</li> <li>AIM-X 10<sup>-2</sup> to 10<sup>-9</sup> mbar</li> </ul> </li> <li>Accuracy* Typically ±30%</li> <li>Maximum overpressure 10 bar absolute</li> <li>Power supply +13.5 to +36V dc (max 1 V ripple)</li> <li>Power consumption 2 W Maximum</li> <li>Output signal 2 to 10V dc</li> <li>Set point                     <ul style="list-style-type: none"> <li>Maximum voltage 40V dc</li> <li>Current 100 mA max</li> </ul> </li> <li>Temperature range                     <ul style="list-style-type: none"> <li>Operating +5 to +60°C</li> <li>Storage +0 to +70°C</li> <li>Baking +300°C (DN40CF versions only) (with electronics podule removed)</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Materials exposed to vacuum                     <ul style="list-style-type: none"> <li>NW25 versions Stainless steel 304 &amp; 306 &amp; 347 fluoroelastomer, glass</li> <li>DN40CF Stainless steel 304, 316 &amp; 347, copper, ceramic</li> </ul> </li> <li>Internal volume 26 cm<sup>3</sup></li> <li>Weight                     <ul style="list-style-type: none"> <li>NW25 0.81 kg</li> <li>DN40CF 1.09 kg</li> </ul> </li> <li>Socket connector 8-way FCC68 compatible</li> <li>Vacuum fitting NW25 or DN40CF</li> <li>Standards                     <ul style="list-style-type: none"> <li>Electronic design EN 61010-1</li> <li>Electrical noise immunity EN50081-1 EN50082-1</li> <li>Flame retardant casing UL94</li> <li>Enclosure rating IP40</li> </ul> </li> </ul>
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\*Accuracy is reduced at the limits of the measuring range

## PIN ALLOCATION

1 Power supply positive	3 Gauge output	5 Signal common	7 Gauge enable
2 Power supply common	4 Gauge identification	6 Set point output	8 Set point trip level

## OUTPUT CHARACTERISTICS / DIMENSIONS (mm)



## ORDERING INFORMATION

PRODUCT DESCRIPTION	ORDERING INFORMATION	PRODUCT DESCRIPTION	ORDERING INFORMATION
AIM-S-NW25	D146-41-000	<b>Replacement body tube assembly</b>	
AIM-SL-NW25	D146-44-000	NW25	D145-45-801
AIM-S-DN40CF	D146-61-000	DN40CF	D146-61-801
AIM-SL-DN40CF	D146-64-000	<b>Body tube service kit</b>	
AIM-X-NW25	D146-42-000	NW25	D145-45-802
AIM-XL-NW25	D146-45-000	DN40CF	D146-61-802
AIM-X-DN40CF	D146-62-000	<b>Other accessories and supporting products</b>	
AIM-XL-DN40CF	D146-65-000	NW25 centring 3D baffle StSt Viton	D021-10-000
<b>Replacement electronics and magnet housing</b>			
AIM-S	D146-41-800	<b>Cables</b> (include FCC68 compatible connections at both ends)	
AIM-SL	D146-44-800	0.5m	D400-01-005
AIM-X	D146-42-800	1m	D400-01-010
AIM-XL	D146-45-800	3m	D400-01-030
		5m	D400-01-050
		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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Publication No: D145-00-895

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