

AIM ACTIVE INVERTED MAGNETRON GAUGE 10⁻² TO 10⁻⁹ mbar

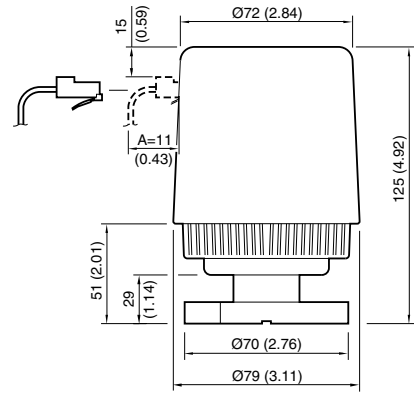
DN40CF



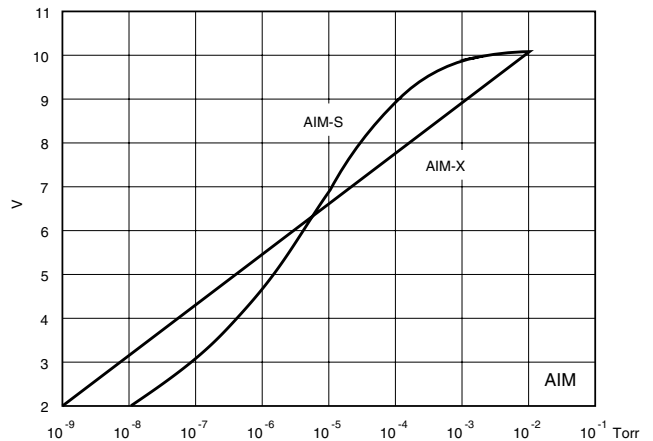
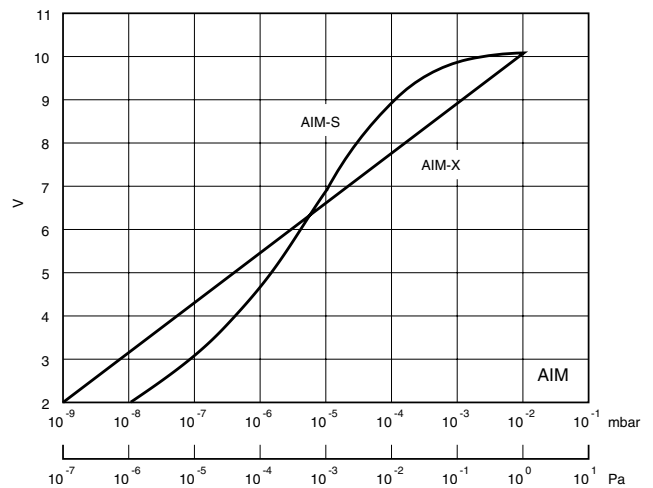
The BOC Edwards Active Inverted Magnetron Gauges (AIM) combine the gauge-head and controller in one compact Active unit. These gauges have proved to be rugged and reliable in a wide range of applications ranging from scientific instruments to industrial processes.

Features & benefits

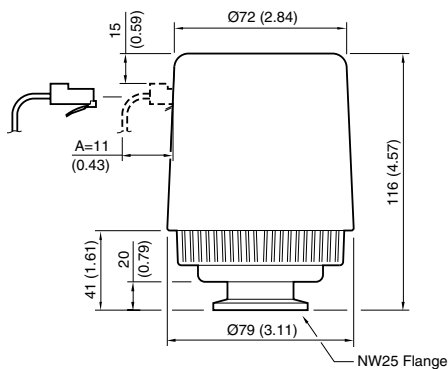
- Drive electronics combined in the gauge head
 - Reduces the system cost
 - Saves valuable rack space
- Wide-range, regulated, internal power supply
 - Runs from standard d.c. power supplies +13.5 to +36 V
 - Tolerant to voltage fluctuations
- Standard analog output 0 to +10 V d.c. and gauge identifier
 - 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 100 m)
- 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)



A = Allowance for cable and connector



NW25



A = Allowance for cable and connector

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TECHNICAL DATA

Pressure range	
AIM-S	10 ⁻² to 10 ⁻⁸ mbar / Torr
AIM-X	10 ⁻² to 10 ⁻⁹ mbar / Torr
Accuracy*	Typically ±30%
Maximum over pressure	10 bar absolute (145 psi)
Power supply	+13.5 to +36 V d.c. (max 1 V ripple)
Power consumption	2 W maximum
Output signal	2 to 10 V d.c.
Set point	Open collector transistor
Maximum voltage	40 V d.c.
Current	100 mA max
Temperature range	
Operating	+5 to +60 °C
Storage	-30 to +70 °C
Baking (DN40CF versions only)	+300 °C (with electronics module removed)
Materials exposed to vacuum	
NW25 version	Stainless steel 304, 306 and 347 fluoroelastomer, glass
DN40CF version	Stainless steel 304, 316 and 347 copper, ceramic
Internal volume	26 cm ³
Weight	
NW25	0.81 kg
DN40CF	1.09 kg
External interface connector	8-way FCC68 / RJ45 socket
Vacuum fitting	NW25 or DN40CF
Standards	
Electronic design	EN 61010-1
Electromagnetic compatibility	EN 61326 (Class B Emissions)
Flame-retardant casing	UL94 (V0)
Enclosure rating	IP40
Pin allocation**	
1. Power supply positive	5. Signal common
2. Power supply common	6. Set-point output
3. Gauge output	7. Gauge enable
4. Gauge identification	8. Set-point trip level

* Accuracy is reduced at the limits of the measuring range

** Not shown on diagram

ORDERING INFORMATION

PRODUCT DESCRIPTION	ORDERING NUMBER
AIM-S-NW25	D14641000
AIM-SL-NW25	D14644000
AIM-S-DN40CF	D14661000
AIM-SL-DN40CF	D14664000
AIM-X-NW25	D14642000
AIM-XL-NW25	D14645000
AIM-X-DN40CF	D14662000
AIM-XL-DN40CF	D14665000
ACCESSORIES & SPARES	ORDERING NUMBER
Replacement electronics and magnet housing	
AIM-S	D14641800
AIM-SL	D14644800
AIM-X	D14642800
AIM-XL	D14645800
Replacement body tube assembly	
NW25	D14545801
DN40CF	D14661801
Body tube service kit	
NW25	D14545802
DN40CF	D14661802
Other accessories and supporting products	
NW25 centering 3D baffle ST/ST Viton®	D02110000
Surge protector*	D40006000
Cables (include FCC68 compatible connections 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

Non-standard lengths and screened cables available on request

* For cables longer than 30 m used in electrically noisy environments, the surge protector is recommended.