PRODUCT DATA SHEET

ACTIVE INVERTED MAGNETRON GAUGE AIM200

edwardsvacuum.com

Edwards new Active Inverted Magnetron Gauge AIM200 is rugged and reliable and due to its compact size, 360^0 LED light ring, integrated set-points and flexibility of connections/outputs, is suitable for a wide range of applications from scientific instruments to industrial processes.

The AIM200 gauge head and gauge controller have been combined into a single compact unit, and features a very low stray magnetic field, coupled with reduced footprint and improved striking mechanism makes it the perfect choice for use within analytical applications where the gauge needs to be mounted in close proximity to sensitive equipment.

Benefits

1 Whilst the principle of cold cathode gauging has remained largely unchanged in principle however, the features required onboard the gauge certainly have. With requirements for on gauge set-points, various digital interfaces and adaptive visual aids increasing. Our advanced AIM200 pushes the boundaries further than ever before in a compact package meeting all your needs.

2 Everyone wants a reliable vacuum process that works day in, day out, whether being used 24/7 or sporadically. This is something we are able to offer with our advanced active inverted magnetron gauge AIM200. It's cold cathode measuring cell builds upon the long track record in cold cathode gauging to give great accuracy and performance across its lifetime.

3 With standardisation becoming ever more common in the vacuum world, having spare parts that can be changed with little to no impact is a key benefit due to the modular platform our AIM200 is built on. Our digital versions of the gauges are in the same footprint as the analogue, allowing for easy future upgrades.

4 A part of a gauges lifetime is its end of life. To ensure that you have minimum downtime and low cost of ownership we have a simple model for replacement electronics and measuring cells so it is easy when a change is required.

Applications

Analytical instruments

Often pushing the boundaries of what is possible with vacuum, making sure that the process is fully optimised and repeatable is key for the ongoing strive for excellence.

Semiconductor

Famed for their harsh duties, ensuring that your Fab is running 24/7 even in these conditions is vital. Therefore strict monitoring of all parts can ensure maximum uptime.

Medical

All kinds of medical and medical related processes rely on differing levels of vacuum at different process steps. Accurately and reliably measuring these steps is important to ensure a consistent output.

Features

1 360° LED light ring visual pressure indicator
The LED light ring not only displays basic adaptive "working/not working" information, it also gives the user precise pressure feedback via the light rings pulsing patterns. The indicator is also used to help guide you through the menu setup

2 Reduced footprint
The AIM200 is compact in size, therefore making it a perfect choice of gauge in those applications where real-estate is at a premium

3 Multipoint star striker
Our innovative gauge is equipped with technology that allows the gauge to strike even in the most heavily contaminated of environments

4 Analogue/digital
A choice of D-Sub or RJ45 for our analogue variants for processes that prefer a "lockable" connector to our digital gauges that sit in the same footprint, making it easy for you to upgrade at a later date should more data collection/control be required

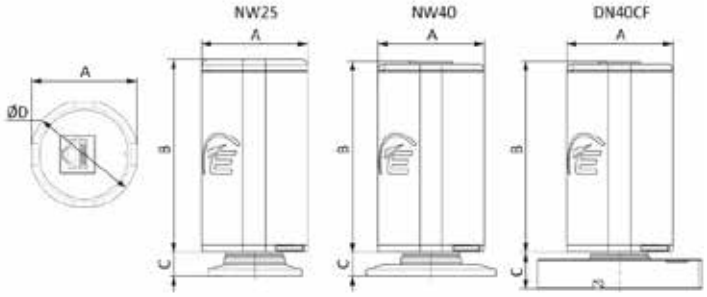
5 Wide range power supply
This gauge boasts a broad power input range of 15-48Vdc, making it one of the most versatile options in the market. Integration into your systems is made effortless and stress-free, as there is no need for an additional power supply unit

6 Drop in compatible
We know the last thing you want to do is change software/carry out lengthy qualification or have to start changing your set-ups. Therefore we have made sure that we provide variants to cover the most commonly used outputs so upgrading is even easier

7 New magnets
The advanced magnets have allowed us to reduce our stray field/interference making the AIM200 reliable and safe to use in environments where the gauge is in close proximity to sensitive equipment

8 Set-point relay
For the first time on an Edwards gauge we have a dedicated set-point relays available, enabling you to trigger a wide range of knock on actions

DIMENSIONS



	Dimensions (mm)			
Flange	**A**	**B**	**C**	**D**
NW25	45	82	10	46
NW40	45	81.5*	10	46
DN40CF	45	81.5*	15.5	46

*The 9 pin D-SUB (female) connector is 0.5 mm shorter than the RJ45 variant.

TECHNICAL SPECIFICATIONS

	AIM200
Measurement type	INVERTED MAGNETRON
Measuring range (mbar)	$1x10^{-9}$ up to $1x10^{-2}$
Accuracy (N_2)	<30% measured value from $1x10^{-8}$ to $1x10^{-2}$
Supply voltage	15-48V
Electrical connection	RJ45, and 9 pin D-Sub
Analogue ouput (D2G0**1***)	0-10V
Serial ouput (D2G0**5*** / D2G0**0***)	RS232 or RS485
Set-point	0 or 1
Relay contact rating	48 V dc max, 500mA
Status indicators	360° Bright LED ring
Max cable length	100m
Operating temp	0 to 50°C
Bake out temp	150°C WITH ELECTRONICS REMOVED
Max relative humidity	80% RH up to 31°C decreasing linearly to 50% RH at 40°C and above
Materials exposed to vacuum	Stainless Steel 316L and 304L, Glass, Molybdenum, Trace of Nickel and Nickel iron
Dead volume	20cm^3
Weight (NW25)	350grams
IP rating	IP40
Certifications	UKCA, CE
Compatible controllers	TIC, ADC, TAG
Sealing	Glass/metal
Comms	Analogue or digital RS232/485 variants
Admisable pressure	10 Bar
Backwards compatibility	yes
Dimension (NW25)	92x45x45
Software	LABVIEW DRIVERS
Output matching	Yes
Flanges	NW25, NW40, DN40CF
Service	Replaceable measuring tube, replaceable electronics/magnet assembly

PART NUMBER MATRIX

Prefix	-	Set-point	Flange	Comms	Connector	Output	Other
D2G	0	0 = 0 Set point [2]	2 = NW25	1 = 0-10V output	1 = RJ45 [4]	0 = Standard Edwards	0
		1 = 1 Set point[1]	3 = NW40	5 = RS232 [1]	2 = 9-Pin D-Sub	2=0.667 to 10.00 V [4]	C=calibrated
			4 = DN40CF	0 = RS485 [1]		3=1.5 to 8.50 V [4]	
						4=1.50 to 4.4375 V [4]	
						5=2.00 to 10V	

Spare - Tube

	-	Set-point	Flange	Comms	Connector	Output	Other
ZD2G	0	A	2 = NW25	A	A	A	0
ZD2G	0	A	3 = NW40	A	A	A	0
ZD2G	0	A	4 = DN40CF	A	A	A	0

Spare - Electronic

	-	Set-point	Flange	Comms	Connector	Output	Other
ZD2G	0	0 = 0 Set point [2]	A	1 = 0-10V output	1 = RJ45 [4]	0 = Standard Edwards	0
ZD2G	0	1 = 1 Set point [1]	A	5 = RS232 [1]	2 = 9-Pin D-Sub	2 = 0.667 to 10.00 V [4]	0
ZD2G	0		A	0 = RS485 [1]		3 = 1.5 to 8.50 V [4]	0
ZD2G	0		A			4 = 1.50 to 4.4375 V [4]	0

[1] only available with 9 pin D-Sub
[2] select for backwards compatible transistor output
[3] only with RS232/485
[4] only with analogue 0-10V

FREQUENTLY USED PART NUMBERS

Analogue	Order no:
AIM200 - NW25 - S matched output	D2G0021150
AIM200 - NW25	D2G0021100
AIM200 - XS - NW25 - 9Pin D-Sub	D2G0121200
AIM200 - DN40CF	D2G0041100

Digital	Order no:
nAIM200-X-RS485-NW25-9 Pin DSUB	D2G0020200
nAIM200-X-RS485-DN40CF-9 Pin DSUB	D2G0040200
nAIM200-X-RS232-NW25-9 Pin DSUB	D2G0025200
nAIM200-X-RS232-DN40CF-9 Pin DSUB	D2G0045200

Publication Number: 3601 0753 01