

## PRODUCT DATA

# Active Pirani Gauges

Range: Atmosphere to  $10^{-4}$  mbar



The BOC Edwards Active Pirani Gauges (APG) combine the gauge head and controller in one compact active unit. The well proven, cost effective and reliable Pirani range has a substantial user base with a successful track record in the measurement of rough and backing pressures across a broad spectrum of applications.

## Features and Benefits

- Wide range, regulated, internal power supply
  - Runs from standard dc power supplies +20 to +36V
  - Tolerant to voltage fluctuations
- Drive electronics combined in the gauge head
  - Reduces the system cost
  - Saves valuable rack space
- Medium and low pressure versions available
  - APG-M and -MP from atmosphere to  $10^{-3}$  mbar
  - APG-L from atmosphere to  $10^{-4}$  mbar
- Standard analogue output 0 to 10V dc
  - Easy to interface with a computer or plc
  - Fault output indication
- Adjustable set-point
  - For process control and interlocking
  - Provides vacuum status indication
  - Set-point level read visually or with voltmeter
- Low output impedance and integral Faraday shield
  - Provides high level of noise immunity
  - Permits long cable runs (up to 100m)
- Corrosion resistant versions available
- Two tube types (Al & StSt) & numerous flange types to suit customer applications

# TECHNICAL DATA

## SPECIFICATIONS

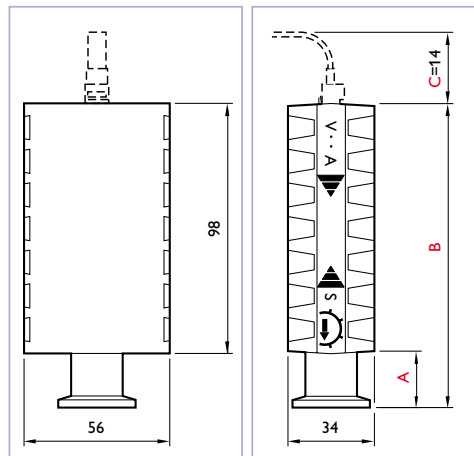
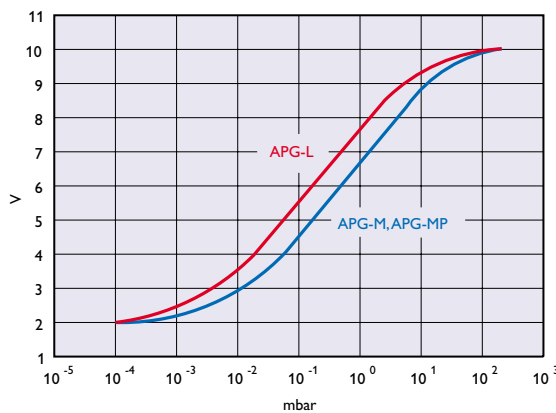
• Pressure range	APG-L / APG-M & APG-MP	Atmosphere to $10^{-4}$ mbar / $10^{-3}$ mbar	• Materials exposed to vacuum	Aluminium tube	Aluminium, Nickel, Fluoroelastomer, PTFE
• Accuracy*	APG-L	Typically $\pm 15\%$ at $< 10$ mbar		Stainless steel tube	Stainless steel (316), Nickel, Fluoroelastomer, PTFE
	APG-M & APG-MP	$< 100$ mbar	• Filament	APG-L & APG-M	Gold coated tungsten
• Maximum overpressure		10 bar absolute (145 psi)		APG-MP	Platinum/rhodium (90/10)
• Power supply		+20V to +36 V dc	• Internal volume		6 cm <sup>3</sup>
• Power consumption		1.5 W max	• Weight	Aluminium / Stainless steel tube	0.12 kg / 0.20 kg
• Output signal		2 to 10V dc	• External interface connectors		8 way FCC68 socket
• Adjustments		Set atmosphere & set vacuum	• Vacuum fitting		NW16, NW25 & 15mm OD
• Set point		Open collector transistor	• Standards	Electronic design	EN 61010-1
	Range of set point	5% to 95% full-scale voltage		Electrical noise immunity	EN 50081-1, EN 50082-1
	Fixed hysteresis	7% full-scale voltage		Flame-retardant casing	UL 94
	Level setting resolution	$\pm 2\%$ full-scale voltage		Enclosure rating	IP 40
	Rating	40 V dc, 100 mA max			
• Temperature range					
	Operating temperature	+5 to +60°C			
	Storage temperature	+0 to +70°C			

\*Accuracy is reduced at the limits of the measuring range

## PIN ALLOCATION

1 Power supply positive	3 Gauge output	5 Signal common	7 Read set point
2 Power supply common	4 Gauge identification	6 Set point output	8 Not connected

## OUTPUT CHARACTERISTICS / DIMENSIONS (mm)



	A	B
NW16	22	120
NW25	26	124
15 OD	52	150

C = allowance for cable and connector

## ORDERING INFORMATION

PRODUCT DESCRIPTION	ORDERING INFORMATION	PRODUCT DESCRIPTION	ORDERING INFORMATION
APG-M-NW16 AL	D021-71-000	<b>Cables</b> (include FCC68 compatible connections at both ends)	
APG-M-NW16 STST	D021-75-000	0.5m	D400-01-005
APG-M-NW25 STST	D021-72-000	1m	D400-01-010
APG-M-15mm OD STST	D021-76-000	3m	D400-01-030
APG-MP-NW16 STST	D021-85-000	5m	D400-01-050
APG-MP-NW25 STST	D021-82-000	10m	D400-01-100
APG-MP-15mm OD STST	D021-86-000	15m	D400-01-150
APG-L-NW16 AL	D021-73-000	25m	D400-01-250
APG-L-NW16 STST	D021-77-000	50m	D400-01-500
APG-L-NW25 STST	D021-74-000	100m	D400-01-999
APG-L-15mm OD STST	D021-78-000	Non standard lengths and screened cables available on request	
		<b>Other accessories and supporting products</b>	
		Wire mesh filter replacement kit (5 off)	D021-71-810
		NW10/16 Sintered filter	D021-10-760

### EUROPE

Crawley, UK +(44) 1293 528844  
 Guildford, UK +(44) 1483 579857  
 Cumbernauld, UK +(44) 1236 730575  
 Brussels, BELGIUM +(32) 2 363 0030  
 Paris, FRANCE +(33) 1 47 98 24 01  
 Munich, GERMANY +(49) 89 99 19 18 0  
 Milan, ITALY +(39) 2 48 4471

### ISRAEL

Qiryat Gat +(972) 7 681 0633

### USA

Wilmington, MA +(1) 978 658 5410  
 Toll free (USA only) 1800 848 9800  
 Santa Clara, CA +(1) 408 496 1177  
 Tempe, AZ +(1) 480 777 7007  
 Austin, TX +(1) 512 491 6622

### ASIA PACIFIC

Hong Kong +(852) 2796 9111  
 Shanghai, CHINA +(86) 21 5866 7558  
 Tianjin, CHINA +(86) 22 2834 1981  
 Taufen Town, TAIWAN R.O.C. +(886) 37 611 422  
 Singapore +(65) 546 8408

### KOREA

Bundang +(82) 31 716 7070

### JAPAN

Tokyo (Vacuum/Abatement) +(81) 3 5470 6530  
 Tokyo (Electronic Gases) +(81) 3 3434 6789  
 Osaka +(81) 6 384 7052  
 Kyushu +(81) 96 326 7300  
 Sendai +(81) 22 373 8525

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