

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

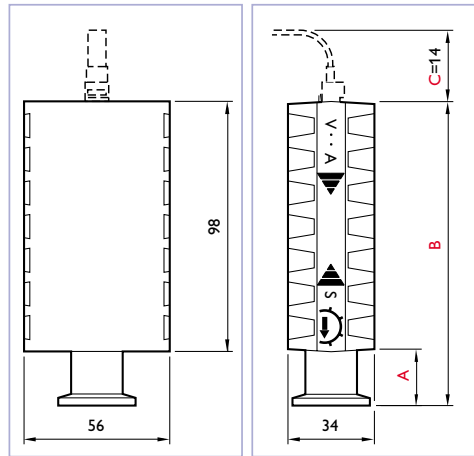
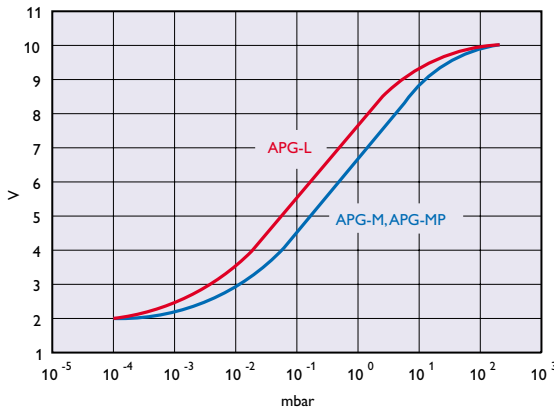
• Pressure range	APG-L / APG-M & APG-MP	Atmosphere to 10^{-4} mbar / 10^{-3} mbar	• Materials exposed to vacuum	Aluminium tube	Aluminium, Nickel, Fluoroelastomer, PTFE
• Accuracy*	APG-L	Typically +/-15% at < 10 mbar		Stainless steel tube	Stainless steel (316), Nickel, Fluoroelastomer, PTFE
	APG-M & APG-MP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