

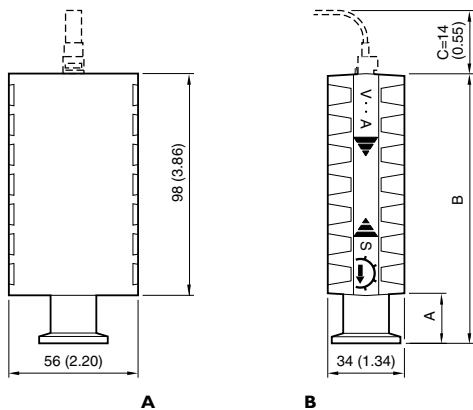
APG ACTIVE PIRANI GAUGES ATMOSPHERE TO 10⁻⁴ mbar



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.

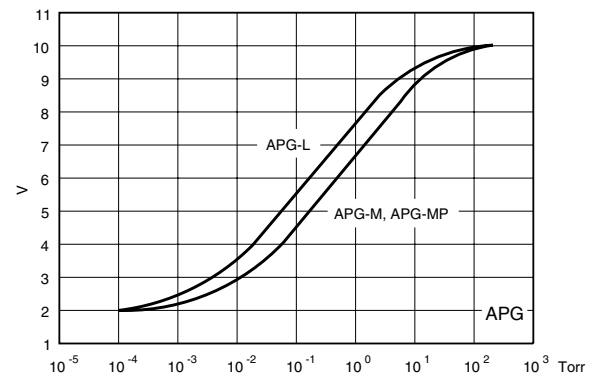
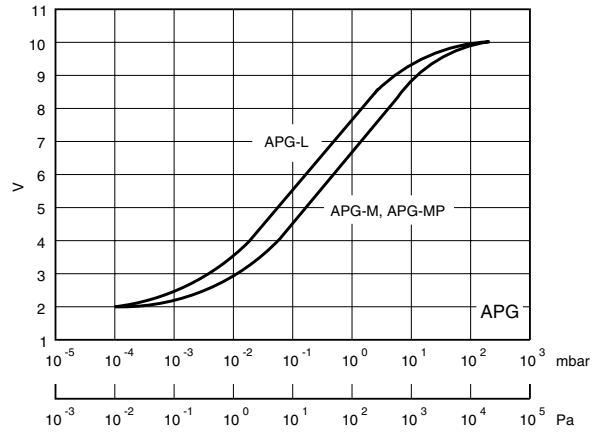
Features & benefits

- Wide range, regulated, internal power supply
 - Runs from standard d.c. power supplies +20 to +36 V
 - 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 analog output 0 to 10 V d.c.
 - 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 100 m)
- Corrosion resistant versions available
- Two tube types (Al & St St) & numerous flange types to suit customer applications



	A	B
NW16	22 mm/0.86 in	120 mm/4.72 in
NW25	22 mm/0.86 in	124 mm/4.88 in
15 mm OD	52 mm/2.05 in	150 mm/5.91 in

C = Allowance for cable and connector



TECHNICAL DATA

Pressure range	
APG-M & APG-MP	Atmosphere to 10 ⁻³ mbar / Torr
APG-L	Atmosphere to 10 ⁻⁴ mbar / Torr
Accuracy*	
APG-M & APG-MP	Typically ±15% at <100 mbar / Torr
APG-L	Typically ±15% at <10 mbar / Torr
Maximum over pressure	10 bar absolute (145 psi)
Power supply	+20 to +36 V d.c. (max 1 V ripple)
Power consumption	1.5 W max
Output signal	2 to 10 V d.c.
Adjustments	Set vacuum and set atmosphere
Set-point	Open collector transistor
Range of set-point	5% to 95% full-scale voltage
Fixed hysteresis	7% full-scale voltage
Level setting resolution	±2% full-scale voltage
Rating	40 V d.c., 100mA max
Temperature range	
Operating	+5 to +60 °C
Storage	-30 to +70 °C
Materials exposed to vacuum	
Aluminum tube	Aluminum, nickel, fluoroelastomer, PTFE
Stainless steel tube	Stainless steel (316), nickel, fluoroelastomer, PTFE
Filament	
APG-M, APG-L	Gold-coated tungsten
APG-MP	Platinum / rhodium (90/10)
Internal volume	NW: 6 cm ³ 15 mm O.D.: 10 cm ³
Weight	
Aluminum	0.12 kg
Stainless steel	0.2 kg
External interface connector	8 way FCC68 / RJ45 socket
Vacuum fitting	NW16, NW25 or 15 mm O.D. tube

* Accuracy is reduced at the limits of the measuring range

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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. Read set-point
4. Gauge identification	8. Not connected

** Not shown on diagram

ORDERING INFORMATION

PRODUCT DESCRIPTION	ORDERING NUMBER
APG-M-NW16 AL	D02171000
APG-M-NW16 ST/ST	D02175000
APG-M-NW25 ST/ST	D02172000
APG-M 15 mm O.D. ST/ST	D02176000
APG-MP-NW16 ST/ST	D02185000
APG-MP-NW25 ST/ST	D02182000
APG-MP 15 mm O.D. ST/ST	D02186000
APG-L-NW16 AL	D02173000
APG-L-NW16 ST/ST	D02177000
APG-L-NW25 ST/ST	D02174000
APG-L 15 mm O.D. ST/ST	D02178000
The above gauges may be supplied with a calibration certificate. Active gauge cables FCC68 compatible connections at both ends	Call for details
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	
Other accessories and supporting products	
Wire mesh filter replacement kit (5 off)	D02171810
NW10/16 sintered filter	D02110760
Surge protector*	D40006000
* For cables longer than 30 m used in electrically noisy environments, the surge protector is recommended.	