Linear convection gauge (APGX-H)

Edwards Linear Convection Vacuum Gauge has a wide measuring range from 1333 to 3 x 10^{-4} mbar (1000 to 2.3 x 10^{-4} Torr).The use of convection technology ensures accuracy and sensitivity are maintained to the top of the range maintained to the top of the pressure range compared to conventional Pirani gauge which are not as accurate above 100 mbar.

The gauge is compact and may be mounted in any orientation, simplifying installation where space is limited. The gauge incorporates a setpoint and two LEDs, which indicate setpoint and gauge status.

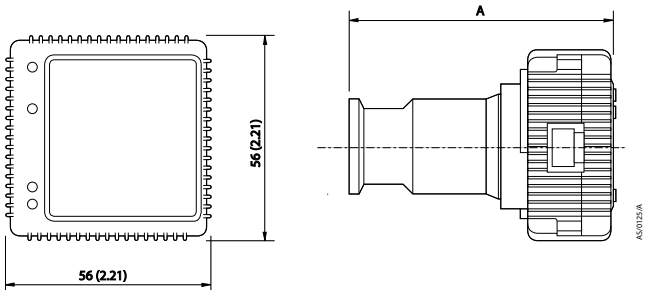
Features and benefits

- Wide measuring range
  - 1333 to 3 x 10^{-4} mbar (1000 to 2.3 x 10^{-4} Torr)
- Consistent measuring accuracy
  - Use of convection technology ensures consistent measuring accuracy (typically ±15%) and repeatability (±5%) to top of range
- Reduced cost of ownership
  - Replaceable tubes are available
- Standard analog output
  - Log linear in range 2.5 to 9.125 V (1V/decade)
  - Compatible with our ADC, AGD and TIC controllers
- Calibration data held in tube
  - Tubes are shipped pre-calibrated
- Easy installation in restricted spaces
  - Maintains accuracy in any orientation across the whole measuring range
- Compact instrument
  - Significantly smaller than leading competitor convection gauges
- Local status indication
  - LEDs indicate setpoint and gauge status at the gauge head
- CSA, C/US approved

Ordering information

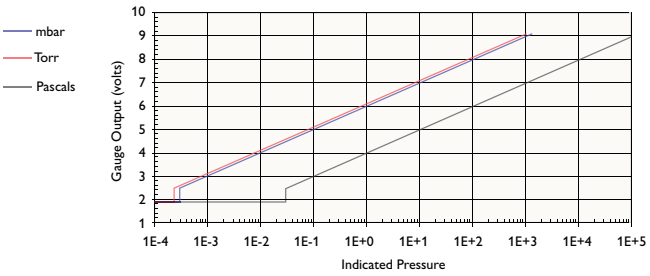
Pressure range	1333 to 3 x 10^{-4} mbar
	(1000 to 2.3 x 10^{-4} Torr)
Power supply	14.5 to 30 V dc
Power consumption	1.5 W maximum
Accuracy	±15% of reading ±3 x 10^{-4} mbar
Repeatability	±5% of reading
Resolution	6mV increments
Response time	< 100 ms
Maximum overpressure	10 bar absolute (145 psia)
Adjustments	Set vacuum and set atmosphere To allow for variations in barometric pressure, atmosphere may be set in the range 700 to 1100 mbar (525 to 825 Torr)
Setpoints† (open collector transistor)	
Range of setpoint	1.8 to 9.3 V
Rating	30 V DC 100 mA
Fixed hysteresis (~ 1/2 decade)	500 mV
Enclosure rating	IP40
† The setpoint output will be turned off if an error is detected	
Temperature range	
Operating temperature	+5 to +60º C
Storage temperature	-30 to +70º C
Material exposed to vacuum	
Aluminum tube	Aluminum, Tungsten, Nickel, PTFE, Fluoroelastomer and Phosphor bronze
Stainless steel tube	St SS 316L, Tungsten, Nickel, PTFE, Fluoroelastomer and Phosphor bronze
Filament	Tungsten

Dimensions - mm (inch)



	NW16 AL	NW16 St St	NW25 St St	1/8" NPT St St
Dim 'A'	75 mm	75 mm	75 mm	87 mm
Int Vol	11 cm^3	11 cm^3	11 cm^3	11 cm^3
Weight	110 g	160 g	170 g	150 g

Output



Log linear in range 2.5 to 9.125 V (1V/decade)
P=10V-6 or V=log (P)+6

Gauges	Order number
APGX-H NW16 aluminium	D02391000
APGX-H NW25 ST/ST	D02392000
APGX-H NW16 ST/ST	D02395000
APGX-H 1/8" NPT ST/ST	D02396000
Certificated gauges are supplied with a certificate traceable to national standards	
APGX-H-NW16 aluminium, certificated	D0239100C
APGX-H-NW16 ST/ST, certificated	D0239500C
APGX-H-NW25 ST/ST, certificated	D0239200C
APGX-H 1/8" NPT ST/ST, certificated	D0239600C

Spares and accessories	Order number
APGX-H electronics module	D02391800
NW16 AL tube	D02391801
NW16 ST/ST tube	D02395801
NW25 ST/ST tube	D02392801
1/8" NPT ST/ST tube	D02396801
APGX-H filter pack 5 (not NPT version)	D02391805
Compatible controllers	
TIC instrument controller 3 head	D39700000
TIC instrument controller 6 head	D39701000
ADC standard	D39590000
ADC enhanced	D39591000

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