BAG055

Mini Bayard-Alpert Gauge - Passive

The hot cathode ionization passive vacuum gauge head BAG055 is a miniature, metal enclosed Bayard-Alpert sensor designed for use with the Vacuum Gauge Controller VGC083A. BAG055 has an electron bombardment (EB) degas and is capable of pressure measurement down to 1×10^{-9} mbar. Thanks to its compact size and a large selection of possible flanges and fittings, BAG055 can be installed in every vacuum system easily and with minimal footprint. BAG055 is offered with a dual yttrium oxide coated iridium filament and can be baked up to 200 °C. The high accuracy makes BAG055 a cost effective and robust choice for general vacuum industrial or R&D applications.

ADVANTAGES

- Long standing, reliable and proven gauge head design
- Drop-in replacement thanks to its compact size, large choice of connection flanges and fittings
- Dual, yttrium oxide coated iridium filament
- Electron bombardment (EB) degassing

APPLICATIONS

- General vacuum measurement and control in the low to high vacuum range
- Industrial and analytical applications

OPERATING UNITS

- Vacuum Gauge Controller VGC083 A

BAG055

ORDERING INFORMATION

BAG055	
BA EB-degas, ¾" tube, Y_2O_3 coated dual iridium filament (Ir)	399-760
BA EB-degas, DN 16 ISO-KF, Y_2O_3 coated dual iridium filament (Ir)	399-761
BA EB-degas, DN 25 ISO-KF, Y_2O_3 coated dual iridium filament (Ir)	399-762
BA EB-degas, DN 40 ISO-KF, Y_2O_3 coated dual iridium filament (Ir)	399-763
BA EB-degas, DN 16 CF-R, Y_2O_3 coated dual iridium filament (Ir)	399-764
BA EB-degas, DN 40 CF-R, Y_2O_3 coated dual iridium filament (Ir)	399-765
BA EB-degas, 8 VCR female, Y_2O_3 coated dual iridium filament (Ir)	399-766

SPECIFICATIONS

Type	BAG055
Measurement system	hot cathode ionization
Electrode system configuration	Bayard-Alpert
Measurement range (N_2)	1.3×10^{-9} … 6.7×10^{-2} mbar 1×10^{-9} … 5×10^{-2} Torr 1.3×10^{-7} … 6.7×10^{-2} Pa
X-ray limit	5×10^{-10} Torr
Sensitivity (N_2, typical)	10 $Torr^{-1}$
Accuracy (N_2, typical)	±15%
Repeatability (N_2, typical)	±5%
Mounting orientation	any
Admissible temperature	
Bake-out	200 °C[1)]
Degas	
Electron bombardment (EB)	≤3 W
Standard operating characteristics with VGC083 controller	
Cathode (filament)	
Heating current	2 … 2.5 A
Heating voltage	1.5 … 2 V (dc)
Potential	+30 V (dc)
Anode (grid) potential	+180 V (dc)
Collector potential	0 V
Materials exposed to vacuum	
Collector	tungsten (W), ø0.010"
Cathode (filament)	dual yttria coated iridium
Anode (grid)	etched stainless steel
Insulator	glass
Flange	stainless steel AISI 304
Length	
Overall	2.7 … 3.8 in. [2)]
Compatible INFICON controller [3)]	VGC083A (PN 399-700)

1) With high temperature cable or without cable

2) Depending on flange

3) For corresponding cables to connect gauge with the VGC083x controller please check VGC083x Data Sheet tiba59e1 or VGC083x Operating Manual tinb29e1

BAG055

tiba61e1-b