BAG402

Bayard-Alpert Hot Ion Gauge

The INFICON single Bayard-Alpert Hot Ion Gauge BAG402 covers a wide measurement range from 5×10^{-10} mbar to 2.7×10^{-2} mbar (3.75×10^{-10} Torr to 2×10^{-2} Torr). Choose the INFICON BAG402 for affordable and repeatable process to base pressure measurements in a compact active gauge package. The unique, supported dual filaments offer superior accuracy, longterm stability and longevity. The BAG402 is considered as OEM gauge and direct connection to customers PLC. It is not supported by VGC50x controller series.

ADVANTAGES

- Measurement range from 5×10^{-10} mbar to 2.7×10^{-2} mbar (3.75×10^{-10} Torr to 2×10^{-2} Torr)
- Excellent repeatability in the process pressure range from 10^{-8} ... 10^{-2} mbar of ±5%
- Two long-life yttrium oxide coated iridium filaments
- Emission current selection reduces control complexity
- Easy to exchange sensing element with on-board calibration data guarantees high reproducibility
- RoHS compliance

APPLICATIONS

- Pressure measurement in semiconductor process and transfer chambers
- Industrial coating
- General vacuum measurement and control in the low to ultra high vacuum range

BAG402

ORDERING INFORMATION

Sensor Type	BAG402
DN 25 ISO-KF	**353-600**
DN 40 CF-R	**353-601**

Replacement Sensor	BAG402
DN 25 ISO-KF	**354-484**
DN 40 CF-R	**354-485**

Accessories	
Baffle	**353-512**
Centering ring with baffle DN 25 ISO-KF	**211-113**

Baffle: Prevents contamination of the sensor, fast and easy installation.

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SPECIFICATIONS

Type	BAG402
Measurement range (air, O_2, CO, N_2)	5×10^{-10} … 2.7×10^{-2} mbar (3.75×10^{-10} … 2×10^{-2} Torr)
Accuracy 10-8 … 10^{-2} mbar	±15% of reading
Repeatability 10-8 … 10^{-2} mbar	5% of reading
Degas [1] $p < 7.2 \times 10^{-6}$ mbar	Electron bombardment, max. 3 min
Pressure, max. bar	2 bar (absolute)
Temperature	
Operation (ambient)	0 … +50°C
Storage	-20 - +70°C
Bakeout at flange	
without electronics	80°C
Supply voltage	+20 - +28 / ≤ 0.8 V / A (dc)
Output signal analog	0 - +10.5 V
Measurement range	0.57 … 8.31 V
Voltage vs. pressure (logarithmic)	1 V / Decade
Error signal	>10 V
Load impedance, min.	10 kΩ
Interface (digital)	Diagnostic port connection, RS232C, Jack connector. 2.5 m, 3-pin
Emission control	Manual via interface
Filament	Two Yt_2O_3 coated Ir
Filament status	LED
Electrical connection	D-Sub, 9-pin, male
Cable length, max.	100 m (330 ft)
Materials exposed to vacuum	Yt_2O_3, Ir, Pt, Mo, W, NiFe, NiCr, stainless steel, glass
Internal volume KF / CF	24 cm^3 (1.46 $in.^3$) / 34 cm^3 (2.1 $in.^3$)
Weight KF / CF	450 g / 710 g
Degree of protection	IP30

[1] Reduced accuracy during degas

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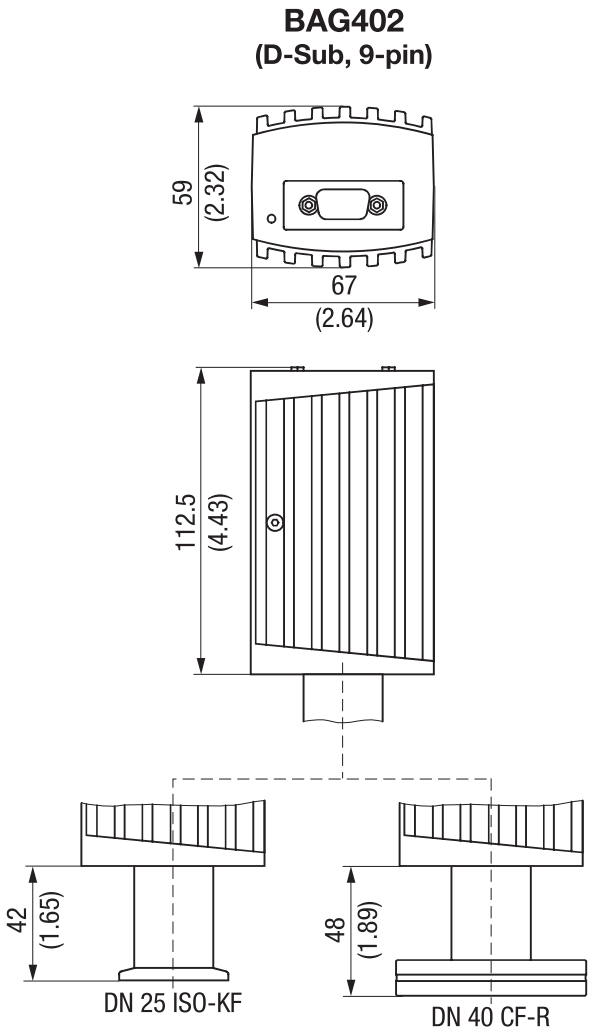
DIMENSIONS

mm (in.)



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