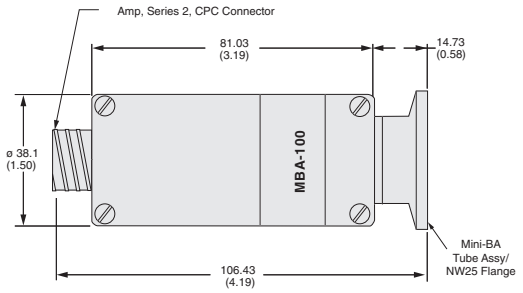
Agilent MBA-100/200 Bayard-Alpert Ion Gauges



Dimensions: millimeters (inches)

The MBA-100 is a compact, all-metal high-vacuum gauge for use where measurement precision and repeatability are equally important, for example laboratory vacuum systems, mass spectrometers, electron microscopes and scientific instruments. A heated filament provides a constant source of electrons for gas ionization, creating superior accuracy and stability, and a wide measurement range from 1 x 10^{-2} to 1 x 10^{-9} Torr. Agilent's unique etched-grid technology provides excellent gauge-to-gauge repeatability, and the small internal surface yields minimal outgassing to ensure accuracy and to protect your experimental process.

The MBA-100 is small and rugged to permit easy installation in a closely packed system. The locking electrical connector ensures safe, positive contact, while the plastic housing protects people and nearby equipment from heat. A metal housing provides excellent shielding from electromagnetic interference (EMI) for superior gauge stability. The thoria-coated iridium filament resists burn out, even in the event of an accidental exposure to air. A dual filament model is available for the most critical applications; the spare filament will permit continued pressure measurement until the next scheduled maintenance period. The MBA-100 is easily interfaced with Agilent's XGS-600 controller for use as a stand-alone pressure measurement tool, or for integration into an experimental or process system.

Technical Specifications

Pressure range
1 x 10^{-2} to 1 x 10^{-9} Torr, 1.3 Pa to 1.3 x 10^{-7} Pa

Sensitivity
15/Torr

Measurement precision
+ 25% within a pressure decade
+ 10 % with STARRS Calibration

Emission current
1 milliamp max

Temperature limits
Operation: 0 °C to 850 °C; Storage: –15 to 80 °C

Bake out temperature
100 °C maximum with cable disconnected

Filament power
~3 watts, varies with pressure

Degas
E-Beam, 600 VDC @ 10 ma maximum

Materials
304 SST housing, flange & grid, thoria- iridium filament, tungsten collector

Connector
Series 2 Circular Plastic Connector, size 11^{-9} (glass filled nylon)

NOTE *For vacuum pressure applications < 10^{-8} Torr, a Conflat flange (CFF) is recommended.*

Ordering Information

NOTE *For information on a gauge controller and cables, please refer to the XGS-600 Controller section.*

Description	Part Number	Fitting	Shipping Weight kg (lbs.)
MBA-100 Ionization Gauge, Single Iridium Filament	R1170301	NW25 KF	1.0 (2.0)
MBA-100 Ionization Gauge, Single Iridium Filament	R1170302	NW40 KF	1.0 (2.0)
MBA-100 Ionization Gauge, Single Iridium Filament	R1170303	2.75 CFF	1.0 (2.0)
MBA-200T Ionization Gauge, Dual Tungsten Filaments	R1170121	NW25 KF	1.0 (2.0)
MBA-200T Ionization Gauge, Dual Tungsten Filaments	R1170122	NW40 KF	1.0 (2.0)
MBA-200T Ionization Gauge, Dual Tungsten Filaments	R1170123	2.75 CFF	1.0 (2.0)
MBA-200T Ionization Gauge, Dual Tungsten Filaments	R1170321	NW25 KF	1.0 (2.0)
MBA-200T Ionization Gauge, Dual Tungsten Filaments	R1170322	NW40 KF	1.0 (2.0)
MBA-200T Ionization Gauge, Dual Tungsten Filaments	R1170323	2.75 CFF	1.0 (2.0)