

4A Convection Gauge Tube

Range: 1 mTorr - 1,000 Torr

- **PERFORMANCE** – Provides continuous and accurate vacuum indication
- **DESIGN** – Cost effective Nickel-plated Brass & Rugged stainless steel construction with simple design for easy operation.
- **FAST RESPONSE TIME** – Millisecond response time rather than seconds for thermocouple type gauges
- **ECONOMY** – Cost effective gauge tube for fundamental applications



Part Number 2-2119-001

Description

The convection gauge provides reliable, fast response measurement from atmosphere to 10^{-3} Torr. Its high accuracy and repeatability help insure that processes start at the desired pressure time-after-time.

The gauge has fast response time—in milliseconds rather than seconds as is the case with thermocouple-type gauges.

The convection gauge measures absolute pressures by determining the heat loss from a fine wire filament maintained at a constant temperature.

Applications

Cryogenics
Coating Process
Plasma Coating/Sputtering
Cryogenic Tanks/Dewars
Heat Treatment/Vacuum Furnace
Refilling Gas Cylinders
Load Lock
Lighting/Neon Signs
Chemical Processing
Electron Beam Welders
Petrochemical
Textile
Pharmaceutical Products
Processing Vacuum Packaging & Transport

4A Convection Gauge Tube

Specifications

Vacuum Measurement Range	1 mTorr to 1,000 Torr (Air/N ₂)
Accuracy	+/- 1 mTorr at 1-10 mTorr +/- 10% of reading at 10 to 1000 mTorr +/- 20% of reading at 50 Torr – 120 Torr +/- 10% of reading at 120 Torr – 1000 Torr
Response Time	<500 milliseconds from 10 ⁻⁵ Torr to Atmosphere
Operating Temperature	+15 degrees C to 50 degrees C
Bakeout Temperature	250 degrees C (w/ 2 ¾ Conflat Flange)
Mounting Position	Must be mounted vertically
Mechanical Connection	1/8 NPT, NW16, NW25, 2 ¾ CF and others
Electrical Connection	Octal connector
Sensor Material	Nickel-plated Brass & Stainless Steel
Overpressure Tolerance	150 PSIG
Dimensions	Max. Height 3.5" (for 1/8" NPT) Max. Width 1.25" (for 1/8" NPT)

Instrument Selection

Many Televac instruments are compatible with the 4A Convection Gauge Tube. Consider the MC300 panel-mount instrument with two 4A stations or the MP4AR self-contained remote for remote mounted applications. Televac also features other panel mount instruments, which combine the 4A convection for rough vacuum measurement and Televac's cold or hot ionization gauge tubes for high and ultra high vacuum measurement.



MC300 Panel Mount Instrument



MP4AR Self-Contained Remote

Ordering Information

Description	Part Number
4A Convection Gauge Tube 1/8" NPT, Nickel-plate Brass	2-2119-001
4A Convection Gauge Tube 1/8" NPT, Stainless Steel	2-2120-001
4A Convection Gauge Tube, NW16, Stainless Steel	2-2120-030
4A Convection Gauge Tube, NW25 Stainless Steel	2-2120-031
4A Convection Gauge Tube, 1 1/3 Conflat Flange, Stainless Steel	2-2120-050
4A Convection Gauge Tube, 2 ¾ Conflat Flange, Stainless Steel	2-2120-052

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