

7E COLD CATHODE SENSOR

Double Inverted Magnetron Technology

Range: 1×10^{-2} to 1×10^{-8} Torr

PRODUCT FEATURES

Double inverted magnetron provides improved sensitivity

Cleanable design ensures long term life

Easily disassembled for quick cleaning, minimizing down time.

Rugged all stainless steel construction ideal for most industrial applications

Small compact size and can be used in any orientation

Reduced external magnetic field compared to other inverted magnetron sensors



7E Cold Cathode Part# 2-2142-031

PRODUCT DESCRIPTION

The Televac model 7E employs patented Double Inverted Magnetron sensor technology to create a rugged and robust wide range vacuum sensor with proven accuracy and unmatched durability in high vacuums.

As part of the unique Double Inverted Magnetron design, opposing magnets maintain two separate inverted magnetron cells increasing the probability of ionization. Electron currents are essentially double those produced by single inverted magnetrons, providing an improved signal to noise ratio and improved sensitivity over other types of cold cathodes.

Unlike hot filament ion sensors that won't tolerate large pressure bursts without compromising its filament, the 7E is impervious to accidental inrushes of gas. This unique design allows for easy disassembly for quick cleaning and long term use.

PRODUCT APPLICATIONS

- Deposition of Optical & Functional Films
- Distillation of Low Vapor Pressure Chemicals
- Electron Microscopes
- Freeze Drying
- Helium Mass Spec. Leak Detectors
- High Energy Physics
- Lamp, Lighting & Laser Products Mfg.
- Mass Spectrometers
- Metallurgical Processes
- Night Vision / Electro-Optical Detector Mfg.
- Plasma Enhanced Deposition
- Sterilization

7E Cold Cathode Sensor

PRODUCT SPECIFICATIONS

Range: 1×10^{-2} to 1×10^{-8} Torr

Overpressure Tolerance: 150 PSIG

Wetted Materials: Type 304 Stainless Steel

Operating Temperature Range: +15 C to +50C

Maximum Continuous Bake Temperature:
+200 C (with magnets removed)
+150 C (with magnets)

Calibrated Medium: Dry Nitrogen per AVS
Recommended Practice No. 6.4.1969

Vacuum Interface: 1" tube, NW25K, NW40K,
2.75" Conflat

Dimensions: Height 4.72 inches (11.98 cm)
Width 1.86 inches (4.73 cm)

ORDERING INFORMATION

Sensors:

7E Cold Cathode with 1" tube, Part # 2-2142-013
7E Cold Cathode with NW25K, Part# 2-2142-031
7E Cold Cathode with NW40K, Part# 2-2142-032
7E Cold Cathode with 2.75" Conflat, Part# 2-2142-052

Controllers & Gauge:

MM200 Part # 2-7900-20 (base unit)
2-6200-223 (7E module)
MC300 Part # 2-4502-303 (2A with 7E Combination)
2-4502-304 (4A with 7E Combination)
MP7ER Vacuum Gauge - Part# Series 2-7950-XXX

Cables:

Standard cables for use with MM200 or MC300 Instruments
10 ft - Part #: 2-9841-10
20 ft - Part #: 2-9841-20
35 ft - Part #: 2-9841-35
50 ft - Part #: 2-9841-50

Triaxial cables for electrical noise immunity
10 ft- Part #: 2-9835-10
20 ft- Part #: 2-9835-20
35 ft - Part #: 2-9835-35
40 ft - Part #: 2-9835-40

CONTROLLERS AND GAUGES for use with 7E Cold Cathode Sensor



MM200 Controller



MP7ER Vacuum Gauge



MC300 Controller