

7FCS QUICK-START & CLEANABLE COLD CATHODE SENSOR

Double Inverted Magnetron Technology

Range: 1×10^{-2} to 1×10^{-11} Torr

Product Features

Ignites 10 times faster than standard cold cathodes during power interruption at ultra high vacuum

Robust Construction: All wetted materials are 304 stainless. Metal-sealed / cleanable subassembly.

UHV Compatible: Knife edge seals and 10^{-11} std. cc/sec. (He) leak rate ensure reliable ultra high vacuum operation.

Small Size: Compact design permits easy replacement of older obsolete sensors.

Versatile: Use in any physical orientation.

Rugged: Withstands frequent pressure bursts.

Reliable Service: Simple design means years of productive use in difficult applications.



Product Description

The Televac model 7FCS is specially designed for applications where power interruption is expected at ultra high vacuum. If your application requires turn on in the 10^{-8} Torr range or higher, turn on will occur in less than 5 seconds, 10 times faster than standard cold cathodes. The 7FCS employs patented Double Inverted Magnetron sensor technology combined with a thermionic igniter, which turns on automatically as soon as the gauge tube goes below 10 mTorr and stays on for only 5 seconds for ignition.

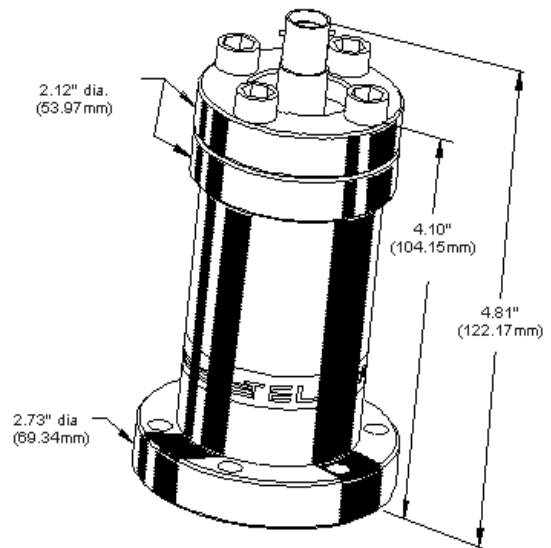
Unlike most high or ultra high vacuum sensors that have a few decades of dynamic range, the 7FCS gives its user ten(10) decades of useful range when used with a mating Televac controller. Typical UHV sensors cannot be disassembled in the field for cleaning. The 7FCS's cleanable sub-assembly can be removed for cleaning without having to break the primary vacuum seal. Unlike hot filament sensors that won't tolerate large pressure bursts without compromising its filament, the 7FCS will sustain and automatically recover from large pressure bursts.

Product Applications

- CRT Mfg.
- 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

Product Specifications

- Range: 1×10^{-2} to 1×10^{-11} Torr
- Overpressure Tolerance: 150 PSIG
- Wetted Materials: Type 304 Stainless Steel
- Operating Temperature Range: +15 C to +50 C
- Maximum Continuous Bake Temperature: +150C (magnets can not be removed)
- Calibrated Medium: Dry Nitrogen per AVS Recommended Practice No. 6.4-1969
- Vacuum Interface: 2.75" CF Non-Rotatable Flange



Ordering Information

Sensor

7FCS Part Number: 2-2146-053

Controller

MM200, Part Number 2-7900-20 (base unit) + 2-6200-285 (7FCS module)

Igniter Cables* - Cables are also available in custom lengths:

10' - Part Number: 2-9837-010

20' - Part Number: 2-9837-020

35' - Part Number: 2-9837-035

50' - Part Number: 2-9837-050

Standard Cold Cathode Cables - Cables are also available in custom lengths:

10' - Part Number: 2-9841-010

20' - Part Number: 2-9841-020

35' - Part Number: 2-9841-035

50' - Part Number: 2-9841-050

High Temperature Cold Cathode Cables (200 C) - Cables are also available in custom lengths:

10' - Part Number: 2-9842-010

20' - Part Number: 2-9842-020

35' - Part Number: 2-9842-035

50' - Part Number: 2-9842-050

Triax Cold Cathode Cables for 10^{-11} Torr Readings & Electrical noise immunity - Cables are also available in custom lengths:

10' - Part Number: 2-9835-010

20' - Part Number: 2-9835-020

35' - Part Number: 2-9835-035

50' - Part Number: 2-9835-050

**Note: Both an igniter and a cold cathode cable are required for operation*

A Division of The Fredericks Company

2400 Philmont Avenue

Huntingdon Valley, PA 19006-0067

Phone - 215.947.2500

Fax - 215.947.7464

E-mail: sales@televac.com

www.televac.com

TELEVAC