

7FC Double Inverted Magnetron Cleanable Cold Cathode Sensor

Part Number: 2-2146-052



Operating Specifications ¹	
Operating Range	1 x 10 ⁻¹¹ to 1 x 10 ⁻² Torr
Analog Output	Controller-dependent
Supply Voltage	Controller-dependent
Mounting Orientation	Any
Calibration Medium	Dry air or nitrogen
Overpressure	150 PSI
Analog Output Resolution	Controller-dependent
Operating Temperature	0° to +50° C
Storage Temperature	-20° to +70° C
Bakeout Temperature	200° C
Response Time	≤ 10 ms
Accuracy	
	1 x 10 ⁻⁹ to 1 x 10 ⁻² Torr ±0.2 decade

Description

The 7FC cold cathode sensor has a measurement range from 1 x 10⁻¹¹ up to 1 x 10⁻² Torr. It indirectly measures absolute pressure by ionizing gas in the presence of a magnetic field. Unlike hot filament sensors, the 7FC is resistant to inrushes of gas. The design of this sensor allows for easy disassembly enabling quick cleaning and extended use.

The 7FC can be operated by the Televac MM200 or MC300 rack mountable controllers. These controllers automatically operate the cold cathode to provide a full range vacuum measurement solution when the 7FC is used in conjunction with rough vacuum sensors.

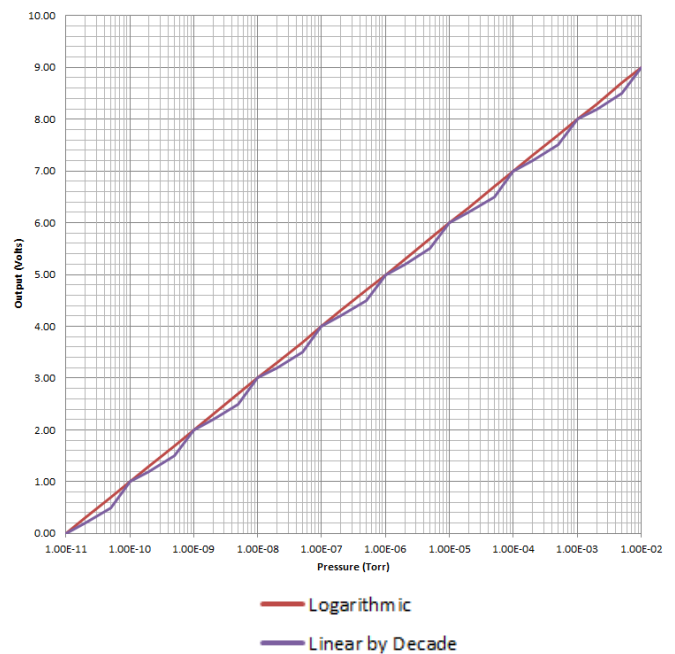
Physical Characteristics	
Electrical Connections	SHV5
Weight	944 g (2.08 lbs)
Dimensions	See dimensional drawings

Materials Exposed to Vacuum	
Stainless Steel	
Ceramic	
Copper	

Benefits

- Cleanable for extended sensor lifetime
- Mountable in any orientation
- Resistant to inrushes of gas
- Interchangeable with 7E, 7F, 7FCS
- Minimal stray magnetic field
- Excellent customer support
- Designed and manufactured in the United States of America

Analog Output Behavior (MM200)



Ratings and Compliance

- RoHS compliant

¹ See the Televac website at www.televac.com for a list of definitions for terms used in the operating specifications. All test data was acquired at 23° C.





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Ordering Information

7FC Cold Cathode Sensor	2-2146-052
Standard Cables	2-9841-0XX
High Temperature Cables (200 C)	2-9842-0XX
Triaxial Cables (MM200 only)	2-9835-0XX
Radiation Resistant Cables	2-9836-0XX
Cable Length	XX
10 ft (3 m)	10
20 ft (6.1 m)	20
35 ft (10.6 m)	35
50 ft (15.2 m)	50
MM200 Base Unit	2-7900-20
MM200 7F Module	2-6200-245
MC300 2A/7F Configuration	2-4502-303
MC300 4A/7F Configuration	2-4502-304

Related Products

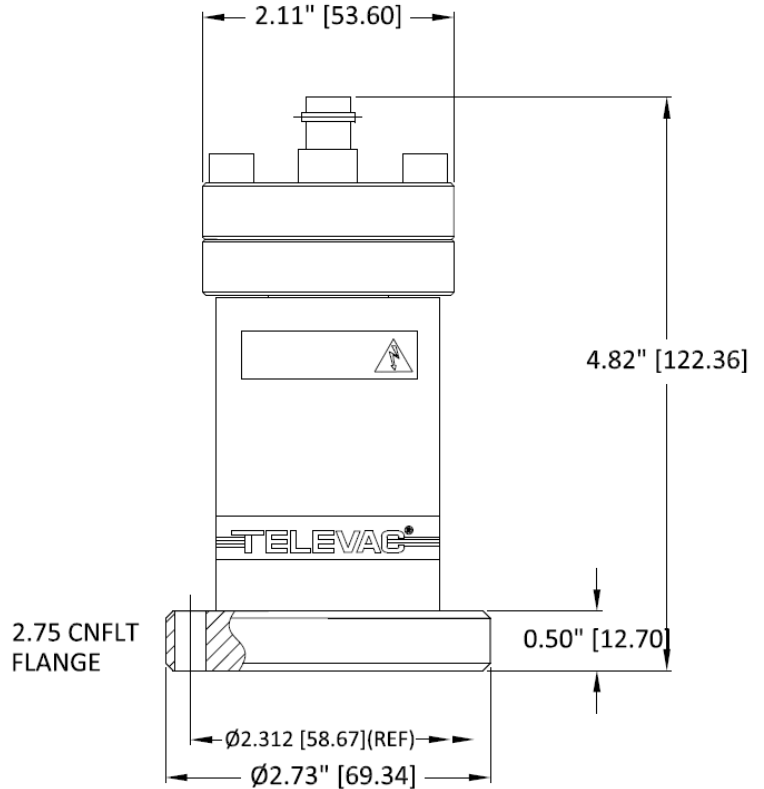
7E Double Inverted Magnetron Cold Cathode Sensor – This sensor has a measurement range from 1×10^{-8} up to 1×10^{-2} Torr. It indirectly measures absolute pressure by ionizing gas in the presence of a magnetic field. Unlike hot filament sensors, the 7E is resistant to inrushes of gas. The design of this sensor allows for easy disassembly enabling quick cleaning and extended use. The 7E can be operated by several Televac controllers, including the MM200, MC300, and MP7ER. The MM200 and MC300 controllers automatically operate the cold cathode to provide a full range vacuum measurement solution when the 7E is used in conjunction with rough vacuum sensors.

MM200 Vacuum Sensor Controller - The MM200 controls any Televac vacuum sensor including cold cathode, convection, diaphragm, hot ion, and thermocouple sensors. It also has optional features including up to 8 relay set points and RS-232/RS-485 communications. The large, bright LED display makes it easy to read from a distance. The MM200 is a modular unit, allowing customers to choose a vacuum sensing solution specific to their needs.

MC300 Vacuum Sensor Controller - The MC300 controls up to two Televac thermocouple or convection rough vacuum sensors and an optional cold cathode or mini hot ion high vacuum sensor. It features 4 relay set points and large, bright LED displays, making it easy to read from a distance.

Visit the Televac website at www.televac.com for a full list of products and product applications.

Dimensional Drawings



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