MX200

Vacuum Controller and Televac Sensors

The Solution for High Energy Physics

4A Convection Sensor
1×10^{-3} Torr to 1000 Torr

7F Cold Cathode Sensor
1×10^{-11} Torr to 1×10^{-2} Torr

7FCS Quick Start Cold Cathode Sensor
1×10^{-11} Torr to 1×10^{-2} Torr

Display reading:
```
1: 0.0E00     3: 1.0E-05
2: 1.1E-03
UNITS: TORR     SP: OFF
```
TELEVAC MX200 Vacuum Controller

www.televac.com

USB, RS-232, and RS-485 Standard

- **EPICS and synApps compatible**

- **CE and NRTL certified, UL listed**

- **UHV to atmosphere, up to 8 sensors displayed**

- **Radiation resistant, high temperature cables**

- **≤10 millisecond response time**

- **Field upgradable with a modular design**

- **Up to 8 process control set point relays**

Additional Features

- Up to 300 ft. (100 m) cables

- High bakeout temperatures for sensors

- Up to 10 sensors controlled with up to 8 displayed simultaneously

- 0 to 10 V analog output for each sensor with 16 bit ADCs and DACs

- Nitrogen/Air, Argon, Hydrogen, Helium, Neon, Krypton, and Carbon Dioxide gases supported

- Rack mountable

Our Benefit

- Excellent customer service with one-on-one support from engineers

- Proven reliability, providing vacuum measurement solutions since 1935

- Simple integration of our products

- USA based manufacturer

Televac

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MX200 Controller

- The TELEVAC MX200 controls up to 10 Televac vacuum sensors including cold cathode, convection, diaphragm, and thermocouple sensors. It also includes RS-232/RS-485/USB (with optional EthernetIP) and up to 8 set point relays.

- The user interface includes six touch controls and a high contrast green OLED screen with a 180° viewing angle, which displays the units of measurement and the set point status simultaneously. The MX200 is a modular unit, allowing you to choose a vacuum sensing solution specific to your needs. Seven gas types are supported.

4A Convection Sensor

- The TELEVAC 4A convection gauge provides reliable, fast response measurement from atmosphere to 1×10^{-3} Torr. Its high accuracy and repeatability help insure that processes start at the desired pressure time after time.
- Radiation resistant with high bakeout temperatures.

- The gauge has fast response time – in milliseconds rather than seconds. The convection gauge measures absolute pressures by determining the heat loss from a fine wire filament maintained at a constant temperature.

7F/7FCS Cold Cathode Sensor

- The TELEVAC 7F and 7FCS cold cathode sensors have a measurement range from 1×10^{-11} Torr up to 1×10^{-2} Torr. The double inverted magnetron offers reduced external magnetic field compared to other inverted magnetrons.
- Our single feedthrough design with unique sputter shield helps prevent leakage current and insure accuracy and repeatability at UHV.
- Radiation resistant with high bakeout temperatures.

- The 7FCS sensor is specially designed to turn on at ultra high vacuum (UHV) for use in applications when ignition is a concern.
- The 7FCS guarantees starting by using a thermionic emitter, which turns on automatically with the cold cathode for five seconds, ensuring quick starting every time. Alternate starting methods such as field emitters can yield inconsistent starting at UHV.

Suggested Configuration

MX200 Relay/4A/7F or 7FCS 10^{-11} to 1000 Torr

Power Supply	Set Point Relay	4A Convection		7FCS Cold Cathode		USB/RS-232/485

MX200	2-7900-034
Set Point Relay Module	2-6200-211
4A Convection Module	2-6200-215
7F/7FCS Module	2-6200-285
4A Convection Sensor - 2.75" CF	2-2120-052
7F Cold Cathode Sensor 2.75" CF	2-2144-052
7FCS Cold Cathode Sensor - 2.75" CF	2-2146-053
4A cable, radiation resistant - 50 ft	2-9824-050
7F/7FCS cable, radiation resistant - 50 ft	2-9836-050
7FCS starter cable - 50 ft	2-9837-050