2A VacuMini Thermocouple Sensor
Part Number: 2-2100-102

Operating Specifications[1]

Operating Range	1×10^{-3} to 20 Torr
Analog Output	Controller-dependent
Supply Voltage	Controller-dependent
Maximum Voltage	5 V
Maximum Power	55 mW
Maximum Filament Temperature	250° C
Mounting Orientation	Any
Calibration Medium	Dry air or nitrogen
Overpressure	250 PSI
Analog Output Resolution	Controller-dependent
Operating Temperature	-20° to +70° C
Storage Temperature	-40° to +85° C
Bakeout Temperature	140° C
Response Time	≤ 1 s
Accuracy	
1 to 10 mTorr	±1 mTorr
10 to 100 mTorr	±10% of reading
100 mTorr to 1 Torr	±20% of reading
1 to 20 Torr	Indication only
Analog Output	±10 mV

Physical Characteristics

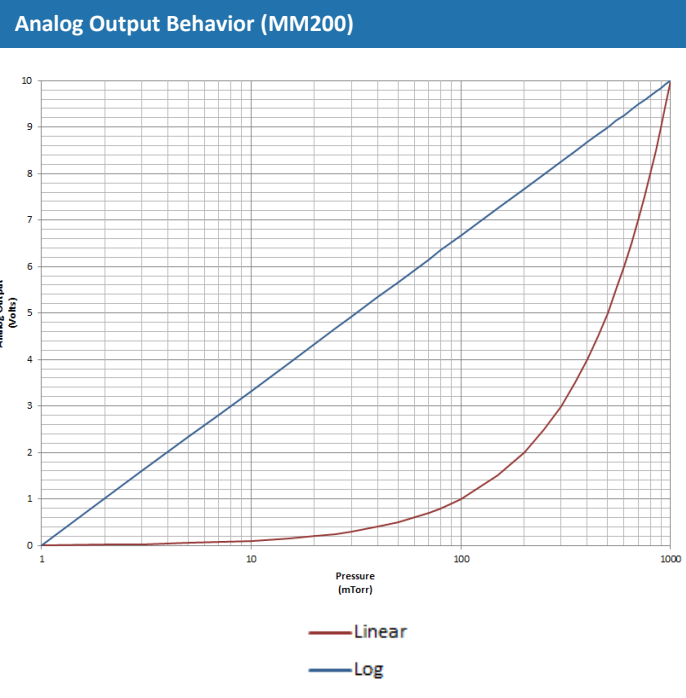|	
Electrical Connections	4-Pin Mates w/Bendix PC-06A-8-4S SR
Weight	28 g (0.062 lbs) (without tether)
Dimensions	See dimensional drawings

Materials Exposed to Vacuum

- Gold
- Glass
- Stainless Steel
- Tophet
- Cupron

Benefits

- Competitively priced
- Compact design
- Gasketed and tethered military grade weather cap
- Operation in any physical orientation
- Rugged and simple construction
- Excellent customer support
- Designed and manufactured in the United States of America

Description

The VacuMini is a commercial version of Televac's 2A NASA sensor. This thermocouple sensor has a measurement range from 1×10^{-3} up to 20 Torr. It indirectly measures absolute pressure by detecting the thermal dissipation of a filament. It includes a tethered cap that provides IP67 protection for the recessed electrical pins. It also has less than 25% of the internal volume of the Televac 2A vacuum sensor.

The VacuMini can be operated by several Televac controllers, including the MM200, MC300, B2A, Compact 2A, Vacuguard, and MV2A.

Analog Output Behavior (MM200)

- Linear
- Log

Ratings and Compliance

- RoHS compliant

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[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

2A VacuMini Sensor 1/8" NPT Stainless Steel	2-2100-102
Coiled Cable, 10 ft (3 m)	2-9800-082
VacuGuard Controller Kit	2-3001-104

Visit the Televac website at www.televac.com for a full list of compatible controllers and ordering information.
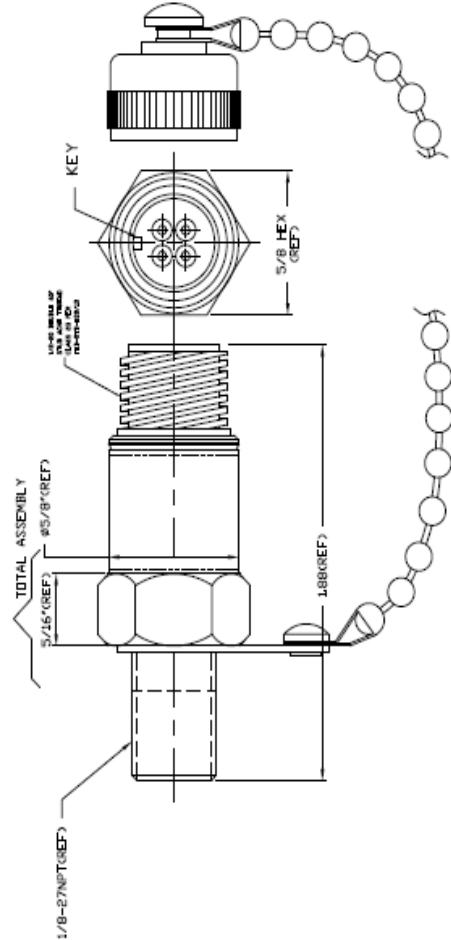
Related Products

4A Convection Sensor – The 4A convection sensor has a measurement range from 1×10^{-4} up to 1000 Torr. The sensor features a rapid response time when compared to typical thermal sensors. It indirectly measures absolute pressure by detecting the thermal dissipation of a filament. The 4A can be operated by several Televac controllers, including the MM200, MC300, and MX4A.

VacuGuard Thermocouple Sensor Controller - This portable controller is designed to operate all Televac 2A series and non-Televac DV4/DV6 type thermocouple sensors. The VacuGuard is powered by a 1.5V battery and features a large, bright LED display making it easy to read. This controller is available with a carrying case for convenience.

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.

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

Dimensional Drawings

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