



## B2A Portable Vacuum Controller

Part Number: **2-3001-10X**

### Operating Specifications

<b>Operating Range</b>	1*10 <sup>-3</sup> Torr to 20 Torr
<b>Communications</b>	None
<b>Analog Output</b>	None
<b>Analog Output Resolution</b>	None
<b>Programmable Set Points</b>	None
<b>Set Point Type</b>	None
<b>Supply Voltage</b>	115 VAC, 50-60Hz
<b>Maximum Power</b>	3 W (Charging)
<b>Battery Life</b>	Up to 12 hours
<b>Calibration Medium</b>	Dry air or nitrogen
<b>Operating Temperature</b>	0 °C to 50 °C
<b>Storage Temperature</b>	-20 °C to 60 °C
<b>Display Readable Distance</b>	1 m (3 ft)
<b>Maximum Sensors Controlled</b>	1
<b>Maximum Sensors Displayed</b>	1
<b>Response Time</b>	≤10 ms
<b>Accuracy</b>	
1 mTorr to 10 mTorr	±1 mTorr
10 mTorr to 100 mTorr	±10% of reading
100 mTorr to 1000 mTorr	±20% of reading

### Physical Characteristics

<b>Housing</b>	Plastic
<b>Electrical Connections</b>	Power cord (IEC 60320 C-13)
<b>Weight with Sensor (typical)</b>	1050 g (2.31 lbs)
<b>Weight without Sensor</b>	878 g (1.94 lbs)
<b>Dimensions</b>	See dimensional drawings

### Key Features and Benefits

- Competitively priced
- Very compact design
- Lightweight and portable
- Excellent customer service and support
- Rapid turn-around for calibration and service

### Applications and Industries

- Liquefied Natural Gas (LNG), industrial gas, cryogenics
- Field service applications

### Materials Exposed to Vacuum

Nickel Plated Brass Sensors	Stainless Steel Sensors
Nickel	Nickel
Glass	Glass
Gold	Gold
Tophet	Tophet
Cupron	Cupron
Solder	Stainless Steel

### Certifications, Compliance, and Ratings

- IP40
- NIST traceable calibration optional

### Description

The B2A Portable Thermocouple Controller utilizes our Televac® 2A thermocouple, 2A VacuMini thermocouple, and 2A NASA Mini thermocouple vacuum gauges that when combined offer a measurement range from 1\*10<sup>-3</sup> to 20 torr.

It has a variety of features including an easy to read analog display and a rechargeable battery that last up to 12 hours between charges. The B2A includes a coiled cable to minimize hassle while taking measurements in the field.

### Ordering Information

Part Number	Description
2-3001-100	B2A with 2A cable, carry case
2-3001-101	B2A with 2A mini cable, carry case

Specify 110 V or 220 V

### Cables and Accessories

Part Number	Description
2-9800-081	2A cable, coiled, 10 ft (3 m)
2-9800-082	NASA/mini 2A cable, coiled, 10 ft (3 m)
1-2600-26	Carry case

### Compatible Vacuum Gauges

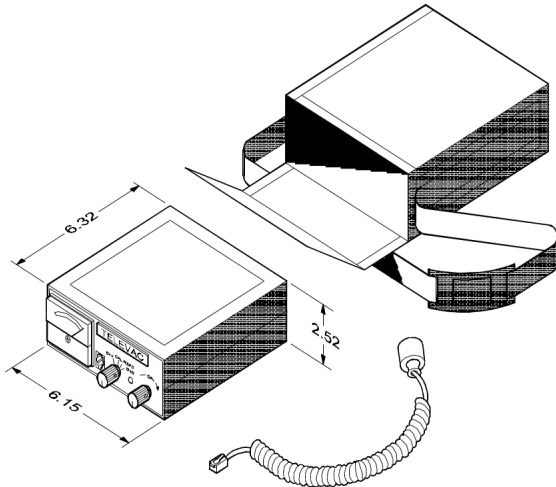
Part Number	Description
2-2100-10	2A 1/8" NPT Nickel-plated Brass
2-2100-016	2A NW16/KF16 Nickel-plated Brass
2-2100-025	2A NW25/KF25 Nickel-plated Brass
2-2126-001	2A 1/8" NPT Stainless Steel
2-2126-030	2A NW16/KF16 Stainless Steel
2-2126-031	2A NW25/KF25 Stainless Steel
2-2126-040	2A 8-VCO Male Stainless Steel
2-2126-041	2A 8-VCO Female Stainless Steel
2-2126-042	2A 8-VCR Male Stainless Steel
2-2126-043	2A 8-VCR Female Stainless Steel
2-2126-044	2A 4-VCR Male Stainless Steel
2-2126-045	2A 4-VCR Female Stainless Steel
2-2126-050	2A 1.33" CF Stainless Steel
2-2126-052	2A 2.75" CF Stainless Steel
2-2100-102	2A VacuMini 1/8" NPT Stainless Steel
2-2100-31	2A NASA Mini 1/8" NPT Stainless Steel
2-2100-97	2A NASA Mini VCR 4 male Stainless Steel

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**Dimensional Drawing**



**Company Information**

**Specialty manufacturing services that promise precision** - Since 1935, Fredericks has specialized exclusively in tilt and vacuum measurement products. Today, our precise manufacturing processes produce the most accurate and advanced products on the market, ensuring perfection every time. A true specialty service provider, we are willing and eager to put our experience and capabilities to good use, helping OEMs achieve even the most complex designs.

**High performance products designed and manufactured with pride** - Fredericks is a global provider and U.S. manufacturer and designer of high-performance tilt and vacuum measurement products. Built to last, our products are made with state-of-the-art sensing technology, proven processes, and an intrinsic passion for the trade. Offering simple integration and quality and safety benchmarks, our customers benefit not just from standard-setting reliability, but from our commitment to competitive pricing and performance.

**A partnership that prioritizes uptime, lead time, and service** - Fredericks guarantees customer satisfaction and our 'not too big, not too small' operation is what enables us to offer a true partnership experience. Our dedicated representatives and engineers offer exceptionally responsive service and some of the fastest lead times in the industry, knowing that uptime is the key to your success. With anytime-access to our leadership team and solutions that enhance your products, you will feel the Fredericks difference.

**Vacuum measurement tools built for the toughest jobs** - Fredericks' world-class vacuum sensors, gauges, and control instrumentation are engineered for the most demanding applications and environments. Our patented Televac® and ETI vacuum brands feature cold-cathode technology, thermocouple and convection gauges, and precision-manufactured hot ionization gauges. Dedicated solely to vacuum gauging and calibration services, we provide industrial heating, national laboratories, cryogenics, and industrial gas applications, among many others, with fast lead times and industry-leading performance. Covering the entire practical vacuum range, our products deliver rapid response vacuum readings and sensitivity.

**Additional Images**



2-3001-10X Back

**Additional Documentation**

- [AN3010 Torr Scientific/Torr Decimal/mTorr/Micron Conversions](#)
- [AN3015 Recommended Practices for Vacuum Calibration](#)
- [AN3020 Vacuum Terminology Reference](#)
- [Resource Televac® Tolerances](#)

**Contact Us**

The Fredericks Company  
 2400 Philmont Avenue  
 Huntingdon Valley, PA 19006  
 tel: +1 215 947 2500  
 fax: +1 215 947 7464  
 email: [sales@frederickscompany.com](mailto:sales@frederickscompany.com)  
 web: [www.frederickscompany.com](http://www.frederickscompany.com)

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