



VacuGuard™ Portable Vacuum Controller

Part Number: 2-3001-10X

Operating Specifications

Operating Range	1*10 ⁻³ Torr to 20 Torr
Communications	None
Analog Output	None
Analog Output Resolution	None
Programmable Set Points	None
Set Point Type	None
Battery	D cell, 1.5 V DC
Battery Life	Up to 40 hours
Calibration Medium	Dry air or nitrogen
Operating Temperature	0 °C to 50 °C
Storage Temperature	-20 °C to 60 °C
Display Readable Distance	1 m (3 ft)
Maximum Sensors Controlled	1
Maximum Sensors Displayed	1
Response Time	≤1 s
Accuracy	
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

Enclosure	Stainless steel
Weight with Sensor (typical)	0.7 kg (1.5 lbs)
Dimensions	See dimensional drawing

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

Stainless Steel	Glass
Kovar	Tungsten
Molybdenum	Tantalum
Alumina Ceramic	Nickel
Platinum	Yttria Coated Iridium

Certifications, Compliance, and Ratings

- IP50
- ISO 17025 accredited calibration optional
- NIST traceable calibration optional

Description

The VacuGuard™ Thermocouple Portable Vacuum Controller can be used to read any Televac® 2A thermocouple sensor or DV-4/DV-6 thermocouple sensors. It has a variety of features including an easy to read digital display and a single use or rechargeable D cell battery that lasts up to 40 hours. The VacuGuard™ has an optional coiled cable and carrying bag to minimize hassle while taking measurements in the field.

Ordering Information

Part Number	Description
2-3001-102	VacuGuard™ only
2-3001-103	VacuGuard™, 2A 10' coiled cable, battery, carry case
2-3001-104	VacuGuard™, 2A mini 10' coiled cable, battery, carry case
2-3001-105	VacuGuard™ 2A/DV4/DV6 10' coiled cable, battery, carry case
2-3001-106	VacuGuard™ 2A/DV4/DV6 10' coiled cable, battery, charger, carry case

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)
1-2400-036	DV-4/DV-6 cable, coiled, 10 ft (3 m)
1-5400-024	110 V AC battery charger
1-5400-025	NiCd rechargeable D cell battery (pack of 2)
6-5400-026	NiCd rechargeable D cell holder
1-6100-001	Carry case

Compatible Vacuum Gauges

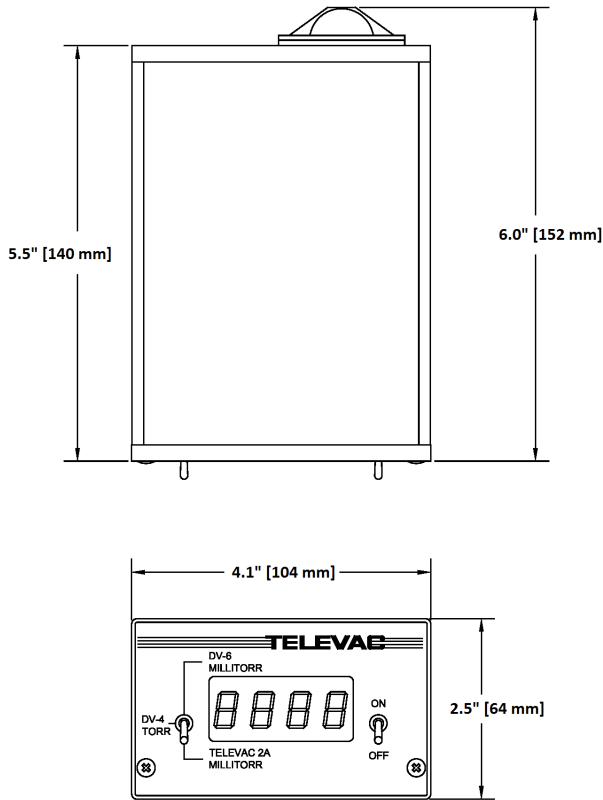
Part Number	Description
2-2100-10	2A 1/8" NPT Nickel-plated Brass
2-2100-016	2A NW16/KF16 Nickel-plated Brass
2-2100-025	2A NW25/KF25 Nickel-plated Brass
2-2126-001	2A 1/8" NPT Stainless Steel
2-2126-030	2A NW16/KF16 Stainless Steel
2-2126-031	2A NW25/KF25 Stainless Steel
2-2126-040	2A 8-VCO Male Stainless 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
2-2111-001	2V6 1/8" (0.125") NPT Stainless Steel
2-2111-011	2V6 1/2" Straight Stainless Steel
See manufacturer	Competing DV4/DV6 Thermocouple

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Dimensional Drawing



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](#)

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.

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