FREDERICKS COMPANY | TELEVAC®

High Performance Sensing Solutions

Vacuum Measurement Product Catalog

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Welcome to Televac® - The Fredericks Company

Televac® 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, semiconductor, and LNG applications, among many others, with fast lead times and industry-leading performance. From atmosphere to ultra-high vacuum, our products deliver rapid response vacuum readings and superior sensitivity.

Two Weeks or Less Lead Times

We're committed to maintaining the shortest possible lead times for our customers. We understand the importance of fast delivery for your business continuity; long lead times are not only frustrating, but can result in an immediate halt to your operations, decreasing productivity and causing revenue loss.

How do we get lead times this fast? We provide you with a dedicated customer service representative who handles your order from start to finish. Our team makes sure that you receive everything you need, so we get it right the first time, every time!

High Performance Products Designed and Manufactured in the USA

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 technologies, 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.

Women-Owned Small Business

Fredericks is proud to be a Women-Owned Small Business (WOSB). We are ISO 9001:2015 certified and registered with the U.S. State Department as ITAR compliant. All of our products are designed and manufactured at our facility in Huntingdon Valley, PA, USA.

Specialty Manufacturing Services That Promise Precision and Partnership

Since 1935, The Fredericks Company 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.

Even though timely customer service and expert product support should be a standard for doing business, in recent times we've found it to be the exception instead of the rule. Getting the quick, ongoing support you need is critical when you have time sensitive engineering challenges to work through. At that point, you don't just need a part – you need a partner, and expert product support is something you can rely on from Fredericks with anytime access to our product specialists and leadership team.

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 Calibration and Service

Televac® offers comprehensive calibration services for vacuum measurement equipment, and our calibration lab is ISO 17025 accredited for vacuum calibrations from $1*10^{-6}$ Torr to 1000 Torr. ISO 17025 accredited calibrations offer NIST traceability and include uncertainties, and are a requirement for certifications and accreditations in certain industries. We have fast turnaround times and the option to expedite if you have a critical calibration requirement.

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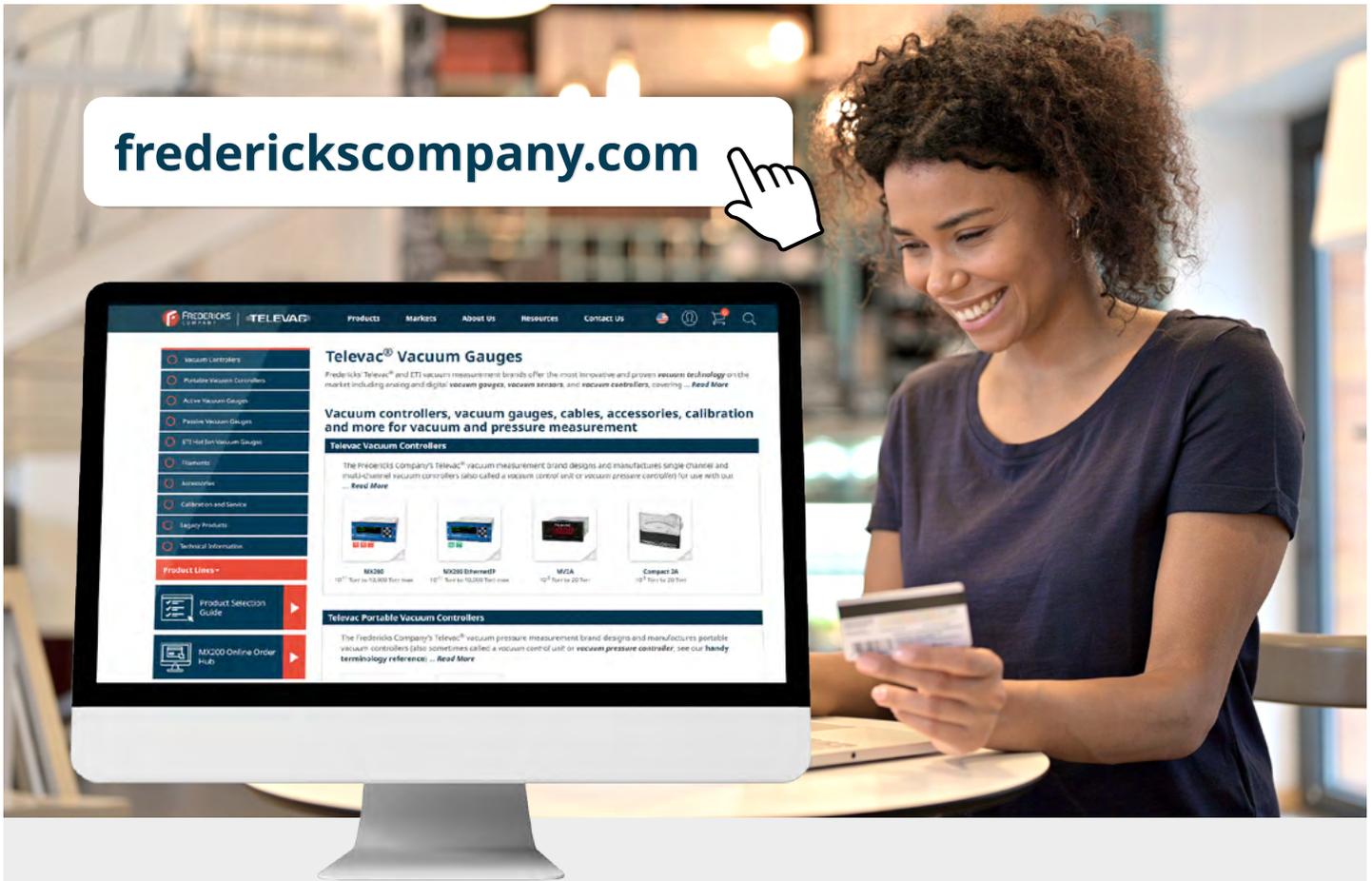
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Markets We Serve

Semiconductor
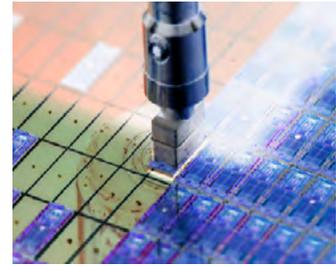
National Labs, R&D

Cryogenics

Vacuum Furnaces

Additional Markets
• E-Beam Welding
• Freeze Dryers
• Heat Treating
• Industrial Gas
• Liquefied Natural Gas
• Particle Accelerators
• Thin Film Deposition
• Vacuum Distillation
• And More!

MX200
Vacuum Controller

The Televac® MX200 vacuum controller can be connected to up to 10 Televac® passive vacuum gauges including cold cathode, convection, capacitance, piezo, and thermocouple gauges. It also includes 0 to 10 V DC analog outputs for each vacuum gauge connected to the vacuum controller, RS-232/RS-485/USB digital communications for simple integration with a PC or PLC, and up to 8 optional set point relays to act as a vacuum pressure controller for process control in your vacuum system.

Features and Benefits
• Rack mountable with a highly configurable design
• USB included for simple connection with a PC
• High contrast OLED display with 180° viewing angle
• Selectable units of measurement (Torr, mbar, Pascal)
• Bootloader for field upgradeable firmware
• Gas conversion functions
• User-configurable analog output ranges
• NIST traceable calibration optional
• ISO 17025 accredited calibration optional

Compatible With
• 2A Thermocouple
• 2A VacuMini Thermocouple
• 2A NASA Mini Thermocouple
• 4A Convection
• 1E Piezo Diaphragm
• 1F Piezo Diaphragm
• 7B Penning Magnetron Cold Cathode
• 7E Double Inverted Magnetron Cold Cathode
• 7F Double Inverted Magnetron Cold Cathode
• 7FC Double Inverted Magnetron Cold Cathode
• 7FCS Double Inverted Magnetron Quick Start Cold Cathode
• Capacitance Diaphragm Gauges (CDG) from other suppliers

Order Your New
MX200 Vacuum Controller Online!

Ordering your MX200 Vacuum Controller just got easier with our **MX200 Online Order Hub**!

Customize every part of the MX200 vacuum including selecting your preferred digital communications, modules, vacuum gauges, cables, and calibration all on one screen.

When you've completed your configuration, you can purchase your new MX200 Vacuum Controller directly online or automatically send your configuration to us for a quote from our sales team!

Start your configuration at frederickscompany.com.

ISO 17025 Accredited Calibration Available!

Specifications

Operating Range	$1*10^{-11}$ to $1*10^{4}$ Torr
Standard Communications	RS-232/RS-485/USB
Optional Communications	EthernetIP, Profinet
Analog Output	0 to 10 V DC (1 per sensor)
Analog Output Resolution	16 Bits
Programmable Set Points	4 per module (8 max)
Set Point Type	Relay
Supply Voltage	115/230 V AC, 50-60 Hz
Max. Sensors Controller	10
Max. Sensors Displayed	8
Response Time	≤10 ms

RS-232/RS-485/USB Module

EthernetIP/USB Module | Profinet/USB Module

Looking For
EthernetIP or Profinet?

MX200 EthernetIP Vacuum Controller

MX200 EthernetIP Vacuum Controller is designed to support EthernetIP (EIP) as a serial port replacement to interface directly with Rockwell Automation Allen-Bradley Programmable Logic Controllers (PLCs).

ISO 17025 Accredited Calibration Available!

MX200 Profinet Vacuum Controller

MX200 Profinet Vacuum Controller is designed to support Profinet, the open Industrial Ethernet standard as a serial port replacement to interface directly with all of SIEMENS Programmable Logic Controllers (PLCs).

MX200 Vacuum Controller
Modules

Description	Part Number	Slots (Max)
MX200 RS-232/RS-485/USB Base Unit	2-7900-034	6 Available
MX200 EthernetIP/USB Base Unit	2-7900-037	5 Available
MX200 Profinet/USB Base Unit	2-7900-038	5 Available
Set point relay module (4 relays)	2-6200-411	1 (2)
2A Thermocouple, 2 channels	2-6200-486	1 (5)
4A Convection, 2 channels	2-6200-415	1 (5)
7B Cold Cathode, 1 channel	2-6200-227	2 (3)
7E, 7F, 7FC, 7FCS Cold Cathode, 1 channel	2-6200-285	1 (5)
1E Piezo Diaphragm, 2 channels	2-6200-220	1 (5)
1F Piezo Diaphragm, 2 channels	2-6200-244	1 (5)
Capacitance Diaphragm Gauge (CDG), 2 channel	2-6200-452	1 (5)

2 channel rough/low vacuum module

1 channel high or UHV vacuum module

MX200 Vacuum Controller
Vacuum Gauge Cables

1E Piezo Diaphragm Circular Connector Cable

Cable Length	Part Number
10' (3 m)	2-9819-010
20' (6 m)	2-9819-020
35' (11 m)	2-9819-035
50' (15 m)	2-9819-050
65' (20 m)	2-9819-065
100' (30 m)	2-9819-100
Custom Length (300' max)	2-9819-000

1F Piezo Diaphragm Circular Connector

Cable Length	Part Number
10' (3 m)	2-9819-010
20' (6 m)	2-9819-020
35' (11 m)	2-9819-035
50' (15 m)	2-9819-050
65' (20 m)	2-9819-065
100' (30 m)	2-9819-100
Custom Length (300' max)	2-9819-000

2A Thermocouple Circular Connector

Cable Length	Part Number
10' (3 m)	2-9800-52
20' (6 m)	2-9800-53
35' (11 m)	2-9800-55
50' (15 m)	2-9800-56
65' (20 m)	2-9800-58
100' (30 m)	2-9800-63
10' (3 m) coiled	2-9800-66
Custom Length (100' max)	2-9800-000

2A Mini Circular Connector

Cable Length	Part Number
10' (3 m)	2-9800-57
10' (3 m) coiled	2-9800-67
Custom Length (100' max)	6-9800-00

MX200 Vacuum Controller
Vacuum Gauge Cables

4A Convection Circular Connector

Cable Length	Part Number
10' (3 m)	2-9819-010
20' (6 m)	2-9819-020
35' (11 m)	2-9819-035
50' (15 m)	2-9819-050
65' (20 m)	2-9819-065
100' (30 m)	2-9819-100
Custom Length (300' max)	2-9819-000
Radiation Resistant Custom Length (300' max)	2-9824-000

7B Cold Cathode Coax Cable

Cable Length	Part Number
10' (3 m)	2-9800-09
20' (6 m)	2-9800-41
35' (11 m)	2-9800-42
50' (15 m)	2-9800-43
65' (20 m)	2-9800-45
100' (30 m)	2-9800-46
Custom Length (300' max)	2-9800-001

7E Cold Cathode Coax Cable

Cable Length	Part Number
10' (3 m)	2-9841-010
20' (6 m)	2-9841-020
35' (11 m)	2-9841-035
50' (15 m)	2-9841-050
Custom Length (300' max)	2-9841-000
High Temp (200 °C) Custom Length (300' max)	2-9842-000

7F Cold Cathode Coax Cable

Cable Length	Part Number
10' (3 m)	2-9841-010
20' (6 m)	2-9841-020
35' (11 m)	2-9841-035
50' (15 m)	2-9841-050
Custom Length (300' max)	2-9841-000
High Temp (200 °C) Custom Length (300' max)	2-9842-000

MX200 Vacuum Controller
Vacuum Gauge Cables

7F Triax High Temperature (200 °C) Cable

Cable Length	Part Number
10' (3 m)	2-9840-010
20' (6 m)	2-9840-020
35' (11 m)	2-9840-035
50' (15 m)	2-9840-050

7F Triax Radiation Resistant Cable

Cable Length	Part Number
Custom Length (300' max)	2-9836-000

7FCS Quick Start Cold Cathode Cable

Cable Length	Part Number
Custom Length (300' max)	2-9837-000

7F Triax and 7FCS Quick Start Cold Cathode Cable

Cable Length	Part Number
Custom Length (300' max)	2-9872-000

Capacitance Diaphragm Gauge (CDG) Cable

Cable Length	Part Number
10' (3 m) D-Sub 15	2-9815-010
20' (6 m) D-Sub 15	2-9815-020
35' (11 m) D-Sub 15	2-9815-035
50' (15 m) D-Sub 15	2-9815-050
65' (20 m) D-Sub 15	2-9815-065
50' (15 m) Flying Leads	2-9816-050
D-Sub 9 Custom Length (100' max)	6-9800-00-DSUB
Custom Length - All (100' max)	6-9800-00-CL

MV2A Thermocouple
Vacuum Controller

The Televac® MV2A vacuum controller can be connected to one Televac® 2A thermocouple vacuum gauge. It includes a 0 to 5 V DC analog output for the gauge connected to the vacuum controller for simple integration with a PLC, and 2 set point relays.

Specifications

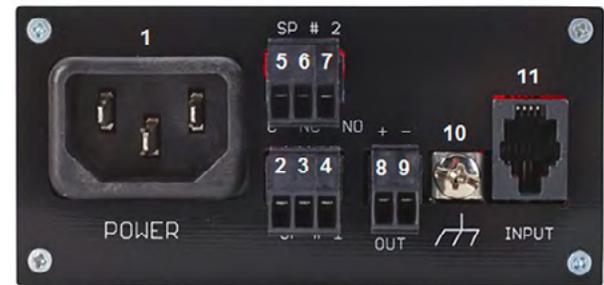|	
Operating Range	$1*10^{-3}$ to 20 Torr
Communications	None
Analog Output	0 to 5 V DC
Programmable Set Points	2

Features and Benefits
• Rack mountable
• LED display reads in Torr and mTorr/microns
• Analog 0 to 5 V DC output
• NIST traceable calibration optional
• ISO 17025 accredited calibration optional

Compatible With
• 2A Thermocouple Vacuum Gauge
• 2A VacuMini Vacuum Gauge
• 2A NASA Mini Vacuum Gauge

Industries and Applications
• Cryogenics
• E-beam Welding
• Industrial Gas
• Liquefied Natural Gas
• Medical Equipment and Devices
• National Laboratories
• Research and Development
• Vacuum Distillation
• Vacuum Furnaces
• And more!

ISO 17025 Accredited Calibration Available!

Ordering Information

Description	Part Number
MV2A - 110 V AC	2-7900-071
MV2A - 220 V AC	2-7900-072

2A Circular Connector Cable

Description	Part Number
10' (3 m) cable	2-9800-077
20' (6 m) cable	2-9800-078
35' (11 m) cable	2-9800-079
50' (15 m) cable	2-9800-080
10' (3 m) coiled cable	2-9800-081

2A Mini Circular Connector Cable

Description	Part Number
10' (3 m) mini cable	2-9800-096
10' (3 m) coiled mini cable	2-9800-082

Compact 2A Thermocouple
Vacuum Controller

The Televac® Compact 2A vacuum controller can be connected to one Televac® 2A passive thermocouple vacuum gauge. It includes a 0 to 10 V DC analog output for the connected vacuum gauge for simple integration with a PLC.

Specifications

Operating Range	$1*10^{-3}$ to 20 Torr
Communications	None
Analog Output	0 to 10 V DC
Supply Voltage	110/220 V AC, 50-60 Hz

Features and Benefits
• Panel mountable
• Analog display with Torr and mTorr/microns
• Analog 0 to 10 V DC output
• NIST traceable calibration optional
• ISO 17025 accredited calibration optional

Compatible With
• 2A Thermocouple Vacuum Gauge
• 2A VacuMini Vacuum Gauge
• 2A NASA Mini Vacuum Gauge

Industries and Applications
• Cryogenics
• E-beam Welding
• Industrial Gas
• Liquefied Natural Gas
• Medical Equipment and Devices
• National Laboratories
• Research and Development
• Vacuum Distillation
• Vacuum Furnaces
• And more!

ISO 17025 Accredited Calibration Available!

Ordering Information

Description	Part Number
Compact 2A	2-3014-042

2A Circular Connector Cable

Description	Part Number
10' (3 m) cable	2-9800-077
20' (6 m) cable	2-9800-078
35' (11 m) cable	2-9800-079
50' (15 m) cable	2-9800-080
10' (3 m) coiled cable	2-9800-081

2A Mini Circular Connector Cable

Description	Part Number
10' (3 m) mini cable	2-9800-096
10' (3 m) coiled mini cable	2-9800-082

VacuGuard™ Portable
Vacuum Controller

The Televac® VacuGuard™ is a small, battery-powered, portable vacuum controller. It's designed for use with Televac® 2A thermocouple gauges or competing DV-4 and DV-6 series thermocouple gauges. This vacuum controller has a range of $1*10^{-3}$ Torr to 20 Torr and a bright LED display for outdoor use.

Specifications

Operating Range	$1*10^{-3}$ to 20 Torr
Size	4" x 2.5" x 5.5"
Battery	Rechargeable D Cell, 1.5 V DC
Battery Life	Up to 40 hours

Features and Benefits
• Lightweight and compact vacuum controller
• Bright LED display, easy to read outdoors
• Displays readings in Torr and mTorr/microns
• NIST traceable calibration optional
• ISO 17025 accredited calibration optional

Compatible With
• 2A Thermocouple Vacuum Gauge
• 2A VacuMini Vacuum Gauge
• 2A NASA Mini Vacuum Gauge
• 2V6 Thermocouple

Industries and Applications
• Liquefied Natural Gas
• Industrial Gas
• Cryogenics
• Field Applications

ISO 17025 Accredited Calibration Available!

Ordering Information

Description	Part Number
VacuGuard™ only	2-3001-102
VacuGuard™, 10' (3 m) 2A coiled cable, battery, carry case	2-3001-103
VacuGuard™, 10' (3 m) 2A Mini coiled cable, battery, carry case	2-3001-104
VacuGuard™, 10' (3 m) 2A/DV4/DV6 coiled cable, battery, carry case	2-3001-105
VacuGuard™, 10' (3 m) 2A/DV4/DV6 coiled cable, battery, battery charger, carry case	2-3001-106

2A, 2A Mini, and DV6 Cables

Description	Part Number
10' (3 m) 2A cable	2-9800-077
20' (6 m) 2A cable	2-9800-078
35' (11 m) 2A cable	2-9800-079
50' (15 m) 2A cable	2-9800-080
10' (3 m) 2A coiled cable	2-9800-081
10' (3 m) 2A Mini cable	2-9800-096
10' (3 m) 2A Mini coiled cable	2-9800-082
10' (3 m) DV6 coiled cable	1-2400-036

B2A Portable
Vacuum Controller

The Televac® B2A Portable is a small, battery-powered, portable vacuum controller. It's designed for use with Televac® 2A thermocouple gauges. This vacuum controller has a range of $1*10^{-3}$ Torr to 20 Torr, and an analog display that reads in microns (mTorr).

Specifications

Operating Range	$1*10^{-3}$ to 20 Torr
Dimensions	6.32" x 6.15" x 2.52"
Battery Type	Rechargeable
Battery Life	Up to 12 hours

Features and Benefits
• Lightweight and compact vacuum controller
• Analog display for outdoor use
• Vacuum controller displays microns (mTorr)
• NIST traceable calibration optional
• ISO 17025 accredited calibration optional

Compatible With
• 2A Thermocouple Vacuum Gauge
• 2A VacuMini Vacuum Gauge
• 2A NASA Mini Vacuum Gauge

Industries and Applications
• Liquefied Natural Gas
• Industrial Gas
• Cryogenics
• Field Applications

ISO 17025 Accredited Calibration Available!

Ordering Information

Description	Part Number
B2A with 10' (3 m) 2A cable, carry case	2-3001-100
B2A with 10' (3 m) 2A Mini cable, carry case	2-3001-101

2A and 2A Mini Cables

Description	Part Number
10' (3 m) 2A cable	2-9800-077
20' (6 m) 2A cable	2-9800-078
35' (11 m) 2A cable	2-9800-079
50' (15 m) 2A cable	2-9800-080
10' (3 m) 2A coiled cable	2-9800-081
10' (3 m) 2A Mini cable	2-9800-096
10' (3 m) 2A Mini coiled cable	2-9800-082

2A Thermocouple
Passive Vacuum Gauge

Our 2A thermocouple vacuum gauge is robust and contamination resistant, with filament based technology. It's simple to install and can be mounted in any orientation, with various options for flanges and fittings.

Specifications

Operating Range	$1*10^{-3}$ to 20 Torr
Mounting Orientation	Any
Max. Bakeout Temperature	120 °C (nickel-plated brass) 200 °C (stainless steel)
Response Time	$\leq$2 s

Features and Benefits
• Compact, robust, and contamination resistant
• Many flanges and fittings available
• Low cost vacuum gauge
• Equivalent to Pirani and convection vacuum gauges

Compatible With
• MX200 Vacuum Controller
• MX200 EthernetIP Vacuum Controller
• MX200 Profinet Vacuum Controller
• MX2A Thermocouple Active Vacuum Gauge
• MV2A Thermocouple Vacuum Controller
• Compact 2A Thermocouple Vacuum Controller
• VacuGuard™ Portable Vacuum Controller
• B2A Portable Vacuum Controller

Industries and Applications
• Cryogenics
• E-beam Welding
• Industrial Gas
• Liquefied Natural Gas (LNG)
• Medical Equipment and Devices
• Medical Particle Accelerators
• National Laboratories
• Research and Development
• Semiconductor
• Thin Film Deposition
• Vacuum Distillation
• Vacuum Furnace, Heat Treating
• And more!

Ordering Information

Description	Part Number
1/8" NPT Nickel-Plated Brass	2-2100-10
1/8" NPT Stainless Steel	2-2126-001
3/8" Straight Stainless Steel	6-2100-11
1/2" Straight Stainless Steel	2-2126-011
NW16/KF16 Stainless Steel	2-2126-030
NW16/KF16 Nickel-Plated Brass	2-2126-016
NW25/KF25 Stainless Steel	2-2126-031
NW25/KF25 Nickel-Plated Brass	2-2100-025
NW40/KF40 Stainless Steel	2-2126-032
8 VCO Male Stainless Steel	2-2126-040
8 VCO Female Stainless Steel	2-2126-041
8 VCR Male Stainless Steel	2-2126-042
8 VCR Female Stainless Steel	2-2126-043
4 VCR Male Stainless Steel	2-2126-044
4 VCR Female Stainless Steel	2-2126-045
CF16/1.33" CF Fixed Stainless Steel	2-2126-050
CF40/2.75" CF Fixed Stainless Steel	2-2126-052

2A NASA Mini Thermocouple

Passive Vacuum Gauge

The Televac® 2A NASA Mini is a smaller, more robust version of our standard 2A thermocouple vacuum gauge originally designed for NASA. This is due to its higher operating and storage temperatures, as well as improved shock and vibration resistance. It's simple to integrate and install because it can be mounted in any orientation.

Specifications

Operating Range	$1*10^{-3}$ to 20 Torr
Mounting Orientation	Any
Max. Bakeout Temperature	400 °C
Response Time	≤1 s

Ordering Information

Description	Part Number
1/8" NPT Stainless Steel	2-2100-31
VCR 4 Male Stainless Steel	2-2100-97

Features and Benefits
• Designed and manufactured to NASA specifications
• Compact, robust, and contamination resistant
• High operating temperature up to 93 °C
• Excellent resolution and repeatability

Compatible With
• MX200 Vacuum Controller
• MX200 EthernetIP Vacuum Controller
• MX200 Profinet Vacuum Controller
• MV2A Thermocouple Vacuum Controller
• Compact 2A Thermocouple Vacuum Controller
• VacuGuard™ Portable Vacuum Controller
• B2A Portable Vacuum Controller

2A VacuMini Thermocouple

Passive Vacuum Gauge

The Televac® 2A VacuMini is a commercial version of our highly successful Televac® 2A NASA Mini vacuum gauge. The 2A series of products is our most robust and contamination resistant rough vacuum gauges due to the thermocouple filament design and operating temperature, and it's simple to install because it can be mounted in any orientation.

Specifications

Operating Range	$1*10^{-3}$ to 20 Torr
Mounting Orientation	Any
Max. Bakeout Temperature	140 °C
Response Time	≤1 s

Ordering Information

Description	Part Number
1/8" NPT Stainless Steel With Cap and Chain	2-2100-102
1/8" NPT Stainless Steel Without Cap and Chain	2-2100-102-01
4 VCR-F Stainless Steel Without Cap and Chain	2-2100-045

Features and Benefits
• Compact, robust, and contamination resistant
• Standard 1/8" NPT flange/fitting
• Weather-capped gauge with gasket and tether
• Lower cost version of 2A NASA Mini

Compatible With
• MX200 Vacuum Controller
• MX200 EthernetIP Vacuum Controller
• MX200 Profinet Vacuum Controller
• MV2A Thermocouple Vacuum Controller
• Compact 2A Thermocouple Vacuum Controller
• VacuGuard™ Portable Vacuum Controller
• B2A Portable Vacuum Controller

2V6 Thermocouple
Passive Vacuum Gauge

Our 2V6 thermocouple vacuum gauge tube is a direct replacement for any competing DV-6 vacuum gauge. No adjustments are needed when used with appropriate Televac® or competitors' controllers. These thermocouple vacuum gauges are a robust solution with a measurement of $1*10^{-3}$ Torr to 1 Torr, and can withstand overpressure of up to 300 PSI.

Specifications

Operating Range	$1*10^{-3}$ to 1 Torr
Mounting Orientation	Any
Max. Bakeout Temperature	100 °C
Overpressure	300 PSIG

Ordering Information

Description	Part Number
1/8" NPT Stainless Steel	2-2111-001
1/2" Straight Stainless Steel	2-2111-011

Features and Benefits
- Compact, robust design
- Compatible with several manufacturers' equipment
- Excellent resolution and repeatability
- Minimal sensor-to-sensor output variation

Compatible With
- VacuGuard™ Portable Vacuum Controller

Need a Vacuum Gauge Baffle Filter?

Sensor filters are designed to trap solid particles, condensable gases, and other contaminants like oil droplets that may enter and contaminate the vacuum gauge. It consists of a three-stage optically dense baffle and should be installed between the vacuum gauge and vacuum chamber. The connection is a 1/8" NPT fitting.

The filter may be installed in any position although the most effective position is vertical with the threads downward.

Compatible With

Vacuum Gauge	Flange Type	Part Number
2A Thermocouple	1/8" NPT Nickel-Plated Brass	2-2100-10
2A Thermocouple	1/8" NPT Stainless Steel	2-2126-001
4A Convection	1/8" NPT Nickel-Plated Brass	2-2119-001
4A Convection	1/8" NPT Stainless Steel	2-2120-001

Ordering Information

Description	Part Number
1/8" NPT Female to 1/8" NPT Male	2-2100-50
1/8" NPT Female to 3/8" Straight	2-2100-98

4A Convection
Passive Vacuum Gauge

Our 4A convection gauge is a fast, robust, contamination resistant, and high accuracy low vacuum gauge due to the convection filament design. The 4A convection gauge will read from $1*10^{-3}$ Torr to 1000 Torr with improved accuracy compared to our other low vacuum gauges, offering ±10% accuracy over the full operating range.

Specifications

Operating Range	$1*10^{-3}$ to 1000 Torr
Mounting Orientation	Vertical
Max. Bakeout Temperature	120 °C (nickel-plated brass) 200 °C (stainless steel)
Response Time	≤1 s

Features and Benefits
• Compact, robust, and contamination resistant
• Many flanges and fittings available
• Equivalent to Pirani and thermocouple vacuum gauges
• Excellent resolution and accuracy

Compatible With
• MX200 Vacuum Controller
• MX200 EthernetIP Vacuum Controller
• MX200 Profinet Vacuum Controller
• MX4A Convection Active Vacuum Gauge

Industries and Applications
• Cryogenics
• E-beam Welding
• Freeze Dryers
• Industrial Gas
• Liquefied Natural Gas (LNG)
• Medical Particle Accelerators
• National Laboratories
• Research and Development
• Semiconductor
• Thin Film Deposition
• Vacuum Distillation
• Vacuum Furnace, Heat Treating Applications
• Vacuum Glove Boxes
• And more!

Ordering Information

Description	Part Number
1/8" NPT Nickel-Plated Brass	2-2119-001
1/8" NPT Stainless Steel	2-2120-001
1/2" Straight Stainless Steel	2-2120-011
NW16/KF16 Stainless Steel	2-2120-030
NW16/KF16 Nickel-Plated Brass	2-2119-016
NW25/KF25 Stainless Steel	2-2120-031
NW25/KF25 Nickel-Plated Brass	2-2119-025
NW40/KF40 Stainless Steel	2-2120-032
8 VCO Male Stainless Steel	2-2120-040
8 VCO Female Stainless Steel	2-2120-041
8 VCR Male Stainless Steel	2-2120-042
8 VCR Female Stainless Steel	2-2120-043
4 VCR Male Stainless Steel	2-2120-044
4 VCR Female Stainless Steel	2-2120-045
CF16/1.33" CF Fixed Stainless Steel	2-2120-050
CF40/2.75" CF Fixed Stainless Steel	2-2120-052

1E Piezo Diaphragm
Passive Vacuum Gauge

Our 1E diaphragm gauge is a fast response, gas independent, high accuracy vacuum gauge due to the piezo-resistive diaphragm core sensing technology. This vacuum gauge is an excellent option for applications where a gas mixture is used, and gas independence is required. The 1E vacuum gauge can be mounted in any orientation.

Specifications

Operating Range	1 Torr to 1000 Torr
Mounting Orientation	Any
Max. Bakeout Temperature	120 °C
Response Time	≤100 ms

Features and Benefits
• Gas independent measurement up to 1,000 Torr
• Compact, robust, and contamination resistant
• Many vacuum flanges and fittings available
• Drop-in vacuum pressure gauge replacement
• Excellent resolution and repeatability

Compatible With
• MX200 Vacuum Controller
• MX200 EthernetIP Vacuum Controller
• MX200 Profinet Vacuum Controller

Ordering Information

Description	Part Number
1/8" NPT Nickel-Plated Brass	2-2106-001
1/8" NPT Stainless Steel	6-2107-001
NW16/KF16 Stainless Steel	2-2107-030
NW25/KF25 Stainless Steel	2-2107-031
NW40/KF40 Stainless Steel	2-2107-032
CF16/1.33" CF Fixed Stainless Steel	2-2107-050
CF40/2.75" CF Fixed Stainless Steel	2-2107-052

1F Piezo Diaphragm
Passive Vacuum Gauge

Our 1F piezo diaphragm gauge is a fast, robust, contamination resistant, and high accuracy low vacuum pressure gauge due to the piezo diaphragm design. Note that by comparison to the 2A and 4A vacuum gauges which have a thermocouple gauge design, the 1F piezo diaphragm vacuum sensor design is gas-independent and can be mounted in any orientation.

Specifications

Operating Range	10 Torr to 10,000 Torr
Mounting Orientation	Any
Max. Bakeout Temperature	120 °C
Response Time	≤100 ms

Features and Benefits
• Gas independent measurement up to 10,000 Torr
• Compact, robust, and contamination resistant
• Standard 1/8" NPT flange/fitting
• Drop-in vacuum pressure gauge replacement
• Excellent resolution and repeatability

Compatible With
• MX200 Vacuum Controller
• MX200 EthernetIP Vacuum Controller
• MX200 Profinet Vacuum Controller

Ordering Information

Description	Part Number
1/8" NPT Nickel-Plated Brass	2-2108-001

7B Penning Magnetron
Cold Cathode Passive Vacuum Gauge

Our 7B cold cathode gauge has a measurement range from 10^{-7} Torr up to 10^{-3} Torr. This vacuum gauge makes indirect absolute pressure measurements by ionizing gas in the presence of a magnetic field. Unlike hot filament gauges, the 7B is cleanable, contamination resistant, and isn't as easily damaged by inrushes of gas. The Penning design of this cold cathode vacuum gauge makes it the most contamination resistant cold cathode we offer.

Specifications

Operating Range	$1*10^{-7}$ to $1*10^{-3}$ Torr
Mounting Orientation	Any
Max. Bakeout Temperature	120 °C
Response Time	≤50 ms

Features and Benefits
• Our most contamination resistant cold cathode
• Many vacuum flanges and fittings available
• Excellent sensor-to-sensor performance
• Excellent resolution and repeatability

Compatible With
• MX200 Vacuum Controller
• MX200 EthernetIP Vacuum Controller
• MX200 Profinet Vacuum Controller
• MX7B Cold Cathode Active Vacuum Gauge

Ordering Information

Description	Part Number
3/4" NPT Brass	2-2100-263
1" Straight Brass	2-2100-265
1 1/4" Straight Brass	2-2100-266
KF25 Stainless Steel	2-2100-272

7E Double Inverted Magnetron
Cold Cathode Passive Vacuum Gauge

The Televac® 7E cold cathode gauge has a measurement range from 10^{-8} Torr up to 10^{-2} Torr. This vacuum gauge makes indirect absolute pressure measurements by ionizing gas in the presence of a magnetic field. Unlike hot filament vacuum gauges, the 7E cold cathode gauge is cleanable, contamination resistant, and isn't as easily damaged by inrushes of gas. This cold cathode has a double-inverted magnetron design which extends its operating range.

Specifications

Operating Range	$1*10^{-8}$ to $1*10^{-2}$ Torr
Mounting Orientation	Any
Max. Bakeout Temperature	150°C
Response Time	≤10 ms

Features and Benefits
• Easily cleaned for extended sensor lifetime
• Durable double inverted ionization gauge construction
• Reliable cold cathode ionization gauge technology
• Mountable in any orientation

Compatible With
• MX200 Vacuum Controller
• MX200 EthernetIP Vacuum Controller
• MX200 Profinet Vacuum Controller

Ordering Information

Description	Part Number
1" Straight Stainless Steel	2-2142-013
NW16/KF16 Stainless Steel	2-2142-030
NW25/KF25 Stainless Steel	2-2142-031
NW40/KF40 Stainless Steel	2-2142-032
CF40/2.75" CF Fixed Stainless Steel	2-2142-052

7F Double Inverted Magnetron

Cold Cathode Passive Vacuum Gauge

The Televac® 7F cold cathode gauge has an extremely wide measurement range from 10^{-11} Torr up to 10^{-2} Torr (making it an ultra-high vacuum or UHV solution). This vacuum gauge makes indirect absolute pressure measurements by ionizing gas in the presence of a magnetic field. Unlike hot filament vacuum gauges, the 7F cold cathode gauge is contamination resistant, and isn't as easily damaged by inrushes of gas.

Specifications

Operating Range	$1*10^{-11}$ to $1*10^{-2}$ Torr
Mounting Orientation	Any
Max. Bakeout Temperature	150 °C
Response Time	≤10 ms

Features and Benefits
• High bakeout temperature for extended sensor lifetime
• Durable double-inverted magnetron gauge technology
• Reliable cold cathode ionization gauge technology
• Mountable in any orientation

Compatible With
• MX200 Vacuum Controller
• MX200 EthernetIP Vacuum Controller
• MX200 Profinet Vacuum Controller

Ordering Information

Description	Part Number
CF40/2.75" CF Fixed Stainless Steel	2-2144-052

7FC Double Inverted Magnetron

Cold Cathode Passive Vacuum Gauge

The Televac® 7FC cold cathode gauge has an extremely wide measurement range from 10^{-11} Torr up to 10^{-2} Torr (making it an ultra-high vacuum or UHV solution). This vacuum gauge makes indirect absolute pressure measurements by ionizing gas in the presence of a magnetic field. Unlike hot filament vacuum gauges, the 7FC cold cathode gauge is cleanable, contamination resistant, and isn't as easily damaged by inrushes of gas. Unlike our 7F, the 7FC is cleanable to extend the usable life of the gauge.

Specifications

Operating Range	$1*10^{-11}$ to $1*10^{-2}$ Torr
Mounting Orientation	Any
Max. Bakeout Temperature	200 °C
Response Time	≤10 ms

Compatible With
• MX200 Vacuum Controller
• MX200 EthernetIP Vacuum Controller
• MX200 Profinet Vacuum Controller

Ordering Information

Description	Part Number
CF40/2.75" CF Fixed Stainless Steel	2-2146-052

Features and Benefits
• Easily cleaned for extended sensor lifetime
• Durable double inverted magnetron gauge construction
• Reliable cold cathode ionization gauge technology
• Mountable in any orientation

7FCS Double Inverted Magnetron Quick Start
Cold Cathode Passive Vacuum Gauge

The Televac® 7FCS cold cathode gauge has an extremely wide measurement range from 10^{-11} Torr up to 10^{-2} Torr (making it an ultra-high vacuum or UHV solution). This vacuum gauge makes indirect absolute pressure measurements by ionizing gas in the presence of a magnetic field. It also includes a filament which makes the gauge start more quickly in high vacuum and ultra-high vacuum, making it ideal for research and national laboratory end uses.

Specifications

Operating Range	$1*10^{-11}$ to $1*10^{-2}$ Torr
Mounting Orientation	Any
Max. Bakeout Temperature	150 °C
Response Time	≤10 ms

Features and Benefits:
- Starts in less than five seconds
- High bakeout temperature for extended sensor lifetime
- Durable double-inverted magnetron gauge construction
- Reliable cold cathode ionization gauge technology
- Mountable in any orientation

Compatible With
- MX200 Vacuum Controller
- MX200 EthernetIP Vacuum Controller
- MX200 Profinet Vacuum Controller

Ordering Information

Description	Part Number
CF40/2.75" CF Fixed Stainless Steel	2-2146-053

Vacuum Gauge Simulators

Sensor simulators are designed to electrically simulate Televac® sensors at specific pressures. These units allow for simple troubleshooting of issues relating to cabling, sensors, and electronics.

Ordering Information

Description	Part Number
2A Octal Zero (Red line, 0 microns)	2-2100-237
2A Octal 3 Point (0, 100, 1000 microns)	2-2100-242
2A Mini Zero (Red line, 0 microns)	2-2100-240
2A Mini 3 Point (0, 100, 1000 microns)	2-2100-241
4A Octal Zero (Red line, 0 microns)	2-2119-000
4A Octal 3 Point (0, 1, 760 Torr)	2-2119-003
7B 2 Point ($1*10^{-3}$ and $1*10^{-5}$ Torr)	2-2100-93
7E 2 Point ($1*10^{-2}$ and $1*10^{-5}$ Torr)	2-2142-000
7F 2 Point ($1*10^{-3}$ and $1*10^{-5}$ Torr)	2-2145-000

Sensor Simulators with Customer Specified Values

Description	Part Number
2A Octal (1 to 30 microns)	6-2100-237
2A Octal (31 to 180 microns)	6-2100-243
2A Octal (181 to 1000 microns)	6-2100-245
2A Mini (1 to 30 microns)	6-2100-240
2A Mini (31 to 180 microns)	6-2100-244
2A Mini (181 to 1000 microns)	6-2100-246
4A set to customer specification (One point only)	6-2119-000

MX2A Thermocouple
Active Vacuum Gauge

The Televac® MX2A Active Vacuum Gauge utilizes an easily replaceable Televac® 2A thermocouple gauge. This vacuum gauge has a variety of features including a pressure measurement range from $1*10^{-4}$ Torr up to 1000 Torr, RS-485 communications, two programmable set points, and a selectable analog vacuum gauge output.

ISO 17025 Accredited Calibration Available!

Specifications

Operating Range	$1*10^{-4}$ to 1000 Torr
Communications	RS-485, EthernetIP
Analog Output	7 selectable 0 V DC to 10 V DC
Programmable Set Points	2

Features and Benefits
• Very compact vacuum gauge
• Easy-to-read color OLED digital vacuum gauge display
• Excellent resolution and repeatability
• Simple sensor replacement - no screws to remove
• NIST traceable calibration optional
• ISO 17025 accredited calibration optional

Compatible With
• MX Series Active Gauge EthernetIP Gateway

Pair Together With
• MX7B Cold Cathode for a full range solution of $1*10^{-8}$ Torr to 1000 Torr
• MX7M Cold Cathode for a full range solution of $5*10^{-11}$ Torr to 1000 Torr

Industries and Applications
• Cryogenics, Liquefied Natural Gas, Industrial Gas
• E-beam Welding
• Medical Particle Accelerators
• National Laboratories, Research and Development
• Semiconductor
• Thin film Deposition
• Vacuum Distillation
• Vacuum Furnace, Heat Treating

Ordering Information

Description	Part Number
1/8" NPT Stainless Steel	2-8910-101
1/8 NPT Nickel-Plated Brass	2-8910-110
1/2" Straight Stainless Steel	2-8910-111
NW16/KF16 Nickel-Plated Brass	2-8910-116
NW16/KF16 Stainless Steel	2-8910-130
NW25/KF25 Nickel-Plated Brass	2-8910-125
NW25/KF25 Stainless Steel	2-8910-131
NW40/KF40 Stainless Steel	2-8910-132
CF16/1.33" CF Fixed Stainless Steel	2-8910-150
CF40/2.75" CF Fixed Stainless Steel	2-8910-152

Wall Power Supply	Part Number
100-240 V AC/47-63 Hz, plug types A, C, G, I	2-7900-097

6 Conductor Cable	Part Number
10' (3 m) flying leads	2-9857-010
20' (6 m) flying leads	2-9857-020
35' (11 m) flying leads	2-9857-035
50' (15 m) flying leads	2-9857-050
65' (20 m) flying leads	2-9857-065
100' (30 m) flying leads	2-9857-100

15 Conductor Cable	Part Number
10' (3 m) flying leads	2-9858-010
20' (6 m) flying leads	2-9858-020
35' (11 m) flying leads	2-9858-035
50' (15 m) flying leads	2-9858-050
65' (20 m) flying leads	2-9858-065
100' (30 m) flying leads	2-9858-100

MX4A Convection
Active Vacuum Gauge

The Televac® MX4A Active Vacuum Gauge utilizes an easily replaceable Televac® 4A convection vacuum gauge. This vacuum gauge has a variety of features including a measurement range from $1*10^{-4}$ Torr up to 1000 Torr, RS-485 communications, two programmable set points, and a selectable 0 to 10 V DC analog vacuum gauge output. The MX4A offers better accuracy over it's operating range compared to the MX2A active gauge.

Specifications

Operating Range	$1*10^{-4}$ to 1000 Torr
Communications	RS-485, EthernetIP
Analog Output	7 selectable 0 V DC to 10 V DC
Programmable Set Points	2

Features and Benefits
• Very compact vacuum gauge
• Easy-to-read color OLED digital vacuum gauge display
• Excellent resolution and repeatability
• Simple sensor replacement - no screws to remove
• NIST traceable calibration optional
• ISO 17025 accredited calibration optional

Compatible With
• MX Series Active Gauge EthernetIP Gateway

Pair Together With
• MX7B Cold Cathode for a full range solution of $1*10^{-8}$ Torr to 1000 Torr
• MX7M Cold Cathode for a full range solution of $5*10^{-11}$ Torr to 1000 Torr

Industries and Applications
• Cryogenics, Liquefied Natural Gas, Industrial Gas
• E-beam Welding
• Medical Particle Accelerators
• National Laboratories, Research and Development
• Semiconductor
• Thin film Deposition
• Vacuum Distillation
• Vacuum Furnace, Heat Treating

ISO 17025 Accredited Calibration Available!

Ordering Information

Description	Part Number
1/8" NPT Stainless Steel	2-9830-101
1/8 NPT Nickel-Plated Brass	2-8930-110
1/2" Straight Stainless Steel	2-9830-111
NW16/KF16 Nickel-Plated Brass	2-8930-116
NW16/KF16 Stainless Steel	2-8930-130
NW25/KF25 Nickel-Plated Brass	2-8930-125
NW25/KF25 Stainless Steel	2-8930-131
NW40/KF40 Stainless Steel	2-8930-132
CF16/1.33" CF Fixed Stainless Steel	2-8930-150
CF40/2.75" CF Fixed Stainless Steel	2-8930-152

Wall Power Supply	Part Number
100-240 V AC/47-63 Hz, plug types A, C, G, I	2-7900-097

6 Conductor Cable	Part Number
10' (3 m) flying leads	2-9857-010
20' (6 m) flying leads	2-9857-020
35' (11 m) flying leads	2-9857-035
50' (15 m) flying leads	2-9857-050
65' (20 m) flying leads	2-9857-065
100' (30 m) flying leads	2-9857-100

15 Conductor Cable	Part Number
10' (3 m) flying leads	2-9858-010
20' (6 m) flying leads	2-9858-020
35' (11 m) flying leads	2-9858-035
50' (15 m) flying leads	2-9858-050
65' (20 m) flying leads	2-9858-065
100' (30 m) flying leads	2-9858-100

MX7B Cold Cathode
Active Vacuum Gauge

The MX7B is an active vacuum gauge featuring the well-known Televac® 7B cold cathode ionization gauge. This gauge provides robust, contamination resistant measurement from 10^{-3} to 10^{-8} Torr. The Penning ionization gauge is our most contamination resistant technology and is easy to disassemble, making gauge replacement and cleaning stress-free while also saving you time and money.

Specifications

Operating Range	$1*10^{-8}$ to $1*10^{-3}$ Torr
Communications	RS-485, EthernetIP, Micro USB
Analog Output	Configurable 0 V DC to 10 V DC
Programmable Set Points	2

Features and Benefits
• Contamination-resistant cold cathode gauge design
• Robust and compact with an easy-to-read OLED display
• Easily cleaned gauge for extended sensor lifetime
• NIST traceable calibration optional
• ISO 17025 accredited calibration optional

Compatible With
• MX Series Active Gauge EthernetIP Gateway

Pair Together With
• MX2A Thermocouple or the MX4A Convection for a full range solution of $1*10^{-8}$ Torr to 1000 Torr

Industries and Applications
• Medical Particle Accelerators
• National Laboratories, Research and Development
• Semiconductor
• Thin Film Deposition
• Vacuum Furnace, Heat Treating
• And More!

ISO 17025 Accredited Calibration Available!

Ordering Information

Description	Part Number
3/4" NPT Brass	2-8940-NPT
3/4 " Straight Stainless Steel	2-9840-075
1" Straight Brass	2-8940-100
1 1/4" Straight Brass	2-8940-125
NW25/KF25 Stainless Steel	2-8940-KF25

Wall Power Supply	Part Number
100-240 V AC/47-63 Hz, plug types A, C, G, I	2-7900-097

6 Conductor Cable	Part Number
20' (6 m) flying leads	2-9873-020
50' (15 m) flying leads	2-9873-050
100' (30 m) flying leads	2-9873-100

15 Conductor Cable	Part Number
10' (3 m) flying leads	2-9858-010
20' (6 m) flying leads	2-9858-020
35' (11 m) flying leads	2-9858-035
50' (15 m) flying leads	2-9858-050
65' (20 m) flying leads	2-9858-065
100' (30 m) flying leads	2-9858-100

MX7B Replacement Sensors	Part Numbers
3/4" NPT Brass	2-2171-NPT
3/4 " Straight Stainless Steel	2-2171-075
1" Straight Brass	2-2171-100
1 1/4" Straight Brass	2-2171-125
NW25/KF25 Stainless Steel	2-2171-KF25

MX7M Cold Cathode
Active Vacuum Gauge

The MX7M is an active vacuum gauge featuring the Televac® 7M cold cathode ionization gauge with a wide operating range of $5*10^{-11}$ to $1*10^{-2}$ Torr. This vacuum gauge has all-metal seals, significantly reducing outgassing. It features a configurable 0 to 10 V DC analog output, RS-485 communications, two programmable set points, and a bright OLED display. The triple inverted magnetron cold cathode technology used in this gauge extends its range compared to the MX7B cold cathode active gauge.

ISO 17025 Accredited Calibration Available!

Specifications

Operating Range	$5*10^{-11}$ to $1*10^{-2}$ Torr
Communications	RS-485, EthernetIP, Micro USB
Analog Output	Configurable 0 V DC to 10 V DC
Programmable Set Points	2

Features and Benefits
• Contamination-resistant cold cathode ionization gauge
• All-metal seals leading to low outgassing
• Easily cleaned for extended sensor lifetime
• NIST traceable calibration optional
• ISO 17025 accredited calibration optional

Compatible With
• MX Series Active Gauge EthernetIP Gateway

Pair Together With
• MX2A Thermocouple or the MX4A Convection for a full range solution of $5*10^{-11}$ Torr to 1000 Torr

Industries and Applications
• Medical Particle Accelerators
• National Laboratories, Research and Development
• Semiconductor
• Thin Film Deposition
• Vacuum Furnace, Heat Treating
• And More!

Ordering Information

Description	Part Number
NW16/KF16 Stainless Steel	2-9850-KF16
NW25/KF25 Stainless Steel	2-9850-KF25
NW40/KF40 Stainless Steel	2-9850-KF40
CF40/2.75" CF Fixed Stainless Steel	2-9850-CF40

Wall Power Supply	Part Number
100-240 V AC/47-63 Hz, plug types A, C, G, I	2-7900-097

6 Conductor Cable	Part Number
20' (6 m) flying leads	2-9873-020
50' (15 m) flying leads	2-9873-050
100' (30 m) flying leads	2-9873-100

15 Conductor Cable	Part Number
10' (3 m) flying leads	2-9858-010
20' (6 m) flying leads	2-9858-020
35' (11 m) flying leads	2-9858-035
50' (15 m) flying leads	2-9858-050
65' (20 m) flying leads	2-9858-065
100' (30 m) flying leads	2-9858-100
100' (30 m) flying leads	2-9858-100

MX7M Replacement Sensors	Part Numbers
NW16/KF16 Stainless Steel	2-2183-KF16
NW25/KF25 Stainless Steel	2-2183-KF25
NW40/KF40 Stainless Steel	2-2183-KF40
CF40/2.75" CF Fixed Stainless Steel	2-2183-CF40

MX Series Active Gauge
EthernetIP Gateway

The MX Active Gauge EthernetIP Gateway is the first and only solution designed to provide an EthernetIP connection between Televac® active vacuum gauges and Rockwell Automation® Allen-Bradley® PLCs. An increasingly popular industrial network communication standard, EthernetIP communication offers users faster and more reliable vacuum measurements and eliminates the need for additional analog-to-digital converters.

Specifications

Operating Range	$5*10^{-11}$ to 1000 Torr
Communications	EthernetIP
MX Gauges Controlled	4
CDG Gauges Controlled	1

Features and Benefits
• Controls up to four active vacuum gauges and one CDG
• Significantly reduces latency from analog signals
• Digitally calibrate vacuum gauges from your HMI
• Configure all settings for all active vacuum gauges

Compatible With
• MX2A Thermocouple Active Vacuum Gauge
• MX4A Convection Active Vacuum Gauge
• MX7B Cold Cathode Active Vacuum Gauge
• MX7M Cold Cathode Active Vacuum Gauge
• Most ±15 V DC and 24 V DC CDG gauges

Industries and Applications
• Cryogenics
• E-beam Welding
• Freeze Dryers
• Industrial Gas
• Liquefied Natural Gas (LNG)
• Medical Particle Accelerators
• National Laboratories
• Research and Development
• Semiconductor
• Thin Film Deposition
• Vacuum Distillation
• Vacuum Furnace, Heat Treating
• Vacuum Glove Boxes
• And More!

Ordering Information

Description	Part Number
MX Active Gauge EthernetIP Gateway	2-9800-100

MX Series Adapters	Part Number
MX DB15	1-2403-001

CDG Adapters	Part Number
24 V CDG DB15	1-2403-002
15 V CDG DB15	1-2403-003
24 V CDG DB9	1-2403-004
15 V CDG DB9	1-2403-005

Cat5e Ethernet Cable	Part Number
10' (3 m) unshielded	1-2401-010
50' (15 m) unshielded	1-2401-050
100' (30 m) unshielded	1-2401-100
10' (3 m) shielded	1-2402-010
50' (15 m) shielded	1-2402-050
100' (30 m) shielded	1-2402-100

CC-10 Wide Range
Active Vacuum Gauge

The Televac® CC-10 Wide Range Active Vacuum Gauge utilizes two internal sensors to measure full range vacuum from UHV to atmosphere. This vacuum gauge has a variety of features including RS-485 communications, two programmable set points, and a selectable analog vacuum pressure gauge output.

Specifications

Operating Range	$1*10^{-9}$ to 1000 Torr
Communications	RS-485
Analog Output	Configurable 0 V DC to 10 V DC
Programmable Set Points	3 relays

Features and Benefits
• Very compact wide range vacuum gauge
• Easy-to-read LED digital vacuum gauge display
• Excellent resolution and repeatability vacuum gauge
• NIST traceable calibration optional
• ISO 17025 accredited calibration optional

Industries and Applications
• National Laboratories
• Research and Development
• Universities
• And More!

ISO 17025 Accredited Calibration Available!

Ordering Information

Description	Part Number
NW25/KF25 Stainless Steel	2-7980-031
NW40/KF40 Stainless Steel	2-7980-032
CF40/2.75" CF Fixed Stainless Steel	2-7980-052

Wall Power Supply	Part Number
100-240 V AC/47-63 Hz, plug types A, C, G, I	2-7900-097

15 Conductor Cable	Part Number
10' (3 m) flying leads	2-9858-010
20' (6 m) flying leads	2-9858-020
35' (11 m) flying leads	2-9858-035
50' (15 m) flying leads	2-9858-050
65' (20 m) flying leads	2-9858-065
100' (30 m) flying leads	2-9858-100

Vacuum Calibration and Service

Televac® calibration services are available for all Televac® vacuum controllers, active vacuum gauge, and passive vacuum gauge systems. Whether your old equipment needs recalibration or your vacuum system requires quarterly, semi-annual, or annual calibration, Televac®'s calibration and service department can handle your most demanding requirements.

Calibration plays a pivotal role in upholding the quality management systems of any organization. At our calibration laboratory, we offer a comprehensive range of services to meet your demands. We hold ISO 17025 accreditation, demonstrating our commitment to precision and reliability. Our capabilities extend to vacuum calibrations, all of which are traceable to NIST primary standards. We also provide standard or factory electrical calibrations, catering to a wide spectrum of calibration needs. Our lab is equipped with state-of-the-art vacuum measurement systems that enable us to calibrate vacuum controllers and active vacuum gauges accurately, spanning the range from 760 Torr to $1*10^{-6}$ Torr.

All calibrations, as defined by our controlled procedures, include calibration certificates documenting the details of the calibration performed.

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