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Granville-Phillips Products

January 2014

Configuration Guide

Brooks Automation, Inc.
6450 Dry Creek Pkwy • Longmont, Colorado 80503-9501 • USA
Phone 1-303-652-4400 • 1-800-776-6543 • Fax 1-303-652-2844
Order online at www.brooks.com

Technical support is available 24 hours a day, 365 days a year through
Brooks GUTS Support at 1-800-367-4887

GRANVILLE-PHILLIPS® PRODUCTS

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How to order from this Price List

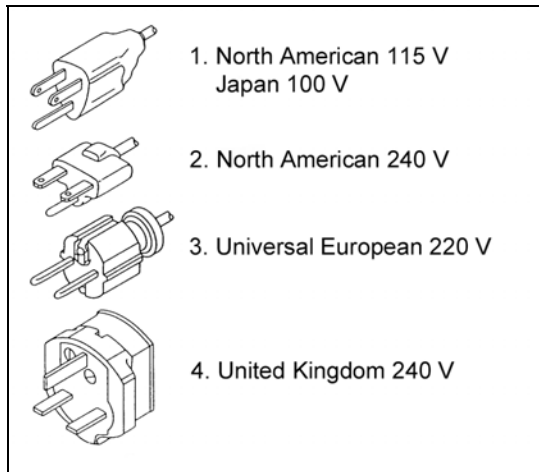
Ordering information is given in the brochures for the products in this Price List; however, additional information is provided here to help simplify your ordering process.

Voltage Requirements and Pressure Indication

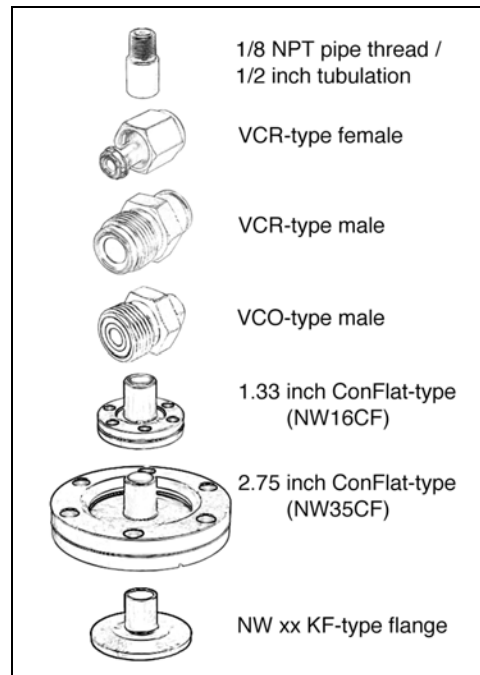
Vacuum Gauge Controllers are offered with a range of electrical cord connectors and pressure indication options. The standard power cord types are illustrated below.

Flanges and Fittings

Vacuum gauges and valves are offered in a wide range of flanges and fittings on. Commonly used flanges and fittings are illustrated below. If you have other requirements, please contact Brooks Customer Support.



Electrical Cord Connectors for Controllers



Common Flanges & Fittings on Gauges

Cold Cathode Modules (Series 500)

Description	Price	Catalog Number
-------------	-------	----------------

Cold Cathode Modules (CE Marked)

Select one of the output configurations to create the appropriate catalog number and determine the price.

Module with RS-485, analog output, 2 setpoints, no display 500100 - 2 # - R4 # - #

Module with RS-485, analog output, 2 setpoints, digital display 500101 - 2 # - R4 # - #

Setpoint Relays

Two relays

2

Calibration

Standard Accuracy

S

Higher Accuracy (Calibrated)

C

Interface

RS-485

R4

Vacuum Fitting

NW25KF

E

NW40KF

K

NW35CF (2.75 inch ConFlat-type)

G

Measurement units:

Torr

T

Mbar

M

Pa

P

Replacement Gauge (Sensor)

500200 - # #

Calibration

Standard Accuracy

S

Higher Accuracy (Calibrated)

C

Vacuum Fitting

NW25KF

E

NW40KF

K

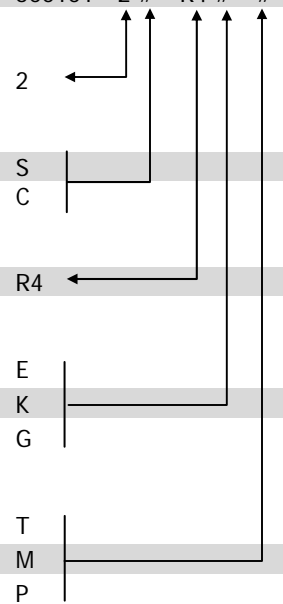
NW35CF (2.75 inch ConFlat-type)

G

Maintenance Kit

500600-K

Kit includes cathode cage, baffle top, baffle bottom, and snap ring.



Vacuum Quality Monitor Controllers and Gauges (Series 835)

Description	Price	Catalog Number
835 VQM Mass Spectrometer Gauge Controller		
Controller, Single Gauge, Benchtop Mount, USB 2.0, without Power Supply/Cord		835500-U # - 0
Controller, Single Gauge, Benchtop Mount, USB 2.0, with Power Supply/Cord		835500-U # - #
AMU		
1-145 amu, no setpoints	1	↑
1-300 amu, no setpoints	3	
Power Supply		
North America 115 Vac/Japan 100 Vac	1	↑
North America 240 Vac	2	
Universal Europe 220 Vac	3	
United Kingdom 240 Vac	4	
VQM Controller Upgrade from 1-145 amu to 1-300 amu		N/A
Universal Power Supply/Cord for 835 Controller, AC to 24 Vdc		801201- #
Select the desired power cord plug type, below.		
North America 115 Vac / Japan 100 Vac	1	↑
North America 240 Vac	2	
Universal Europe 220 Vac	3	
United Kingdom 240 Vac	4	
Cables, Controller-to-Gauge		
1 meter (3.28 ft)		835300-01M
3 meters (9.84 ft)		835300-03M
10 meter (32.8 ft)		835300-10M
20 meter (65.6 ft)		835300-20M
50 meter (164 ft)		835300-50M
CD, 835 Software Suite (Viewer Application, LabVIEW VI)		835400
835 VQM Mass Spectrometer Gauge		
Gauge, Channel Electron Multiplier Detector, Yttria-coated Iridium filament, 2.75-inch (NW35CF) Conflat-type flange		835100-YG- # #
AMU		
1-145 amu (120 resolution)	1	↑
1-300 amu (180 resolution)	3	
Nude		
In Demountable Envelope	N	↑
	D	
VQM Total Pressure Measurement Micro-Ion ATM Module		390802-2-YG-T
Absolute & Ratiometric Pressure, 10 ⁻⁹ to ATM, RS-485, dual Yttria-coated Iridium ion gauge filaments, gauge filament protection, digital display With total pressure, 2.75-inch (NW35CF) ConFlat-type flange, Torr		
Replacement Gauge		390100-YG
Cables, 835 VQM Controller to Micro-Ion ATM Module		
1 meter (3.28 ft)		802301-01M
3 meters (9.84 ft)		802301-03M

Vacuum Quality Monitor Differential Pumping System (DPS) (Series 835)

Description	Price	Catalog Number
835 VQM Differential Pumping System (DPS)		
Differential Pumping System: VQM Gauge, Cross Fitting, Turbo Pump, Roughing Pump, Orifice, Total Pressure Gauge, Power Supply & Cord		835901-DPS-# # # - #
Orifice		
Orifice Size 1 (90 mTorr to 3 Torr)	1	
Orifice Size 2 (10 mTorr to .3 Torr)	2	
Orifice Size 3 (1 mTorr to 50 mTorr)	3	
Orifice Size 4 (.1 mTorr to 5 mTorr)	4	
Orifice Size 5 (.02 mTorr to .8 mTorr)	5	
Valve		
Manual Valve	M	
Pneumatic Valve	P	
Mass Range		
AMU 1-145	1	
AMU 1-300	3	
Select the desired power cord plug type, below.		
North America 115 Vac / Japan 100 Vac	1	
North America 240 Vac	2	
Universal Europe 220 Vac	3	
United Kingdom 240 Vac	4	

NOTE:

VQM Controller (835500-U#-#), Cables (Controller to Gauge [835300-0#M]; Controller to 390 ATM Module [802301-0#M]) and Software CD (835400) **are required and must be ordered separately.** See pg 5 for descriptions and prices.

Vacuum Quality Monitor Accessories

Description	Price	Catalog Number
835 VQM Mass Spectrometer		
Cable, for log/linear analog output (1/8" miniature phone jack) from a G-P Ion Gauge Controller to the analog input (BNC) on the 835 VQM Controller, 10 meters (32.8 ft)		801202-10M
Demountable Envelope (Nipple) for Nude Gauge, 2.75 (NW35CF) Includes port screen		801270
T-Flange, NW35CF, 2.75 inch		801272
Heater Jacket, 120 Vac, North American 115Vac/Japan 100Vac power cord		801203-1
Heater Jacket, 240 Vac, North American 240Vac power cord		801204-2
Heater Jacket, 240 Vac, Universal European 220 Vac power cord		801204-3
Heater Jacket, 240 Vac, United Kingdom 240 Vac power cord		801204-4
835 VQM Differential Pumping System (DPS)		
835 VQM Differential Pumping System (DPS)		
KF40 Adapter Kit		801210-K
Isolation Valve Kit		801700-#-K
Manual Valve	M	
Pneumatic Valve	P	
Orifice for Gate Valve		801211-#
Orifice Size 1 (90 mTorr to 3 Torr)	1	
Orifice Size 2 (10 mTorr to 3 Torr)	2	
Orifice Size 3 (1 mTorr to .3 Torr)	3	
Orifice Size 4 (.1 mTorr to 50 mTorr)	4	
Orifice Size 5 (.02 mTorr to .8 mTorr)	5	
Orifice, No Gate Valve		801212-#
Orifice Size 1 (90 mTorr to 3 Torr)	1	
Orifice Size 2 (10 mTorr to 3 Torr)	2	
Orifice Size 3 (1 mTorr to .3 Torr)	3	
Orifice Size 4 (.1 mTorr to 50 mTorr)	4	
Orifice Size 5 (.02 mTorr to .8 mTorr)	5	
Bolt Kit for Orifice when no Gate Valve is used		801207-K
835 VQM		
Field Replaceable Filament Assembly Kit For use with Series 830 & 835 Gauges		830105-Y-K
Field Replaceable Electron Multiplier Kit For use with Series 835 Gauges only		835110-K
Hardware/Bolt Kit, includes 6 flange bolts and washers, 3 plate nuts, and 1 copper gasket		801274-1
Wrench, 1/4" 12 pt.		801275

Micro-Ion® Plus Modules (Series 392)

Description	Price	Catalog Number
-------------	-------	----------------

Micro-Ion Plus Modules (CE Marked)

Select one of the output configurations and vacuum fitting to create the appropriate catalog number and determine the price (see the example below).

Analog output, no display (no setpoints in the analog version)		392401 - 0 - Y # - #
Analog output, with digital display (no setpoints in the analog version)		392402 - 0 - Y # - #
RS-485 interface, no display		392501 - # - Y # - #
RS-485 interface, with digital display		392502 - # - Y # - #
DeviceNet™ interface, no display		392601 - # - Y # - #
DeviceNet interface, with digital display		392602 - # - Y # - #

Setpoints

None	0
Two	2
Three	3

Ion Gauge Filaments

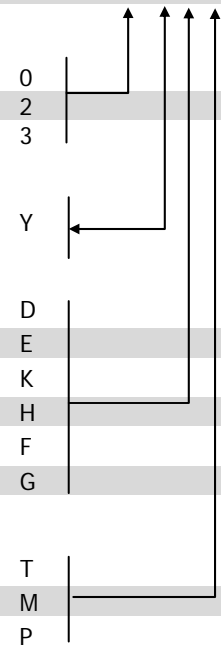
Yttria-coated iridium	Y
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Vacuum Fitting

NW16KF	D
NW25KF	E
NW40KF	K
1/2 inch VCR-type male	H
1.33-inch (NW16CF) ConFlat®-type	F
2.75-inch (NW35CF) ConFlat-type	G

Measurement units:

Torr	T
Mbar	M
Pa	P



Example: To order a Micro-Ion Plus Module with RS-485 output, no display, two setpoints, Tungsten filaments, NW25KF vacuum fitting, and units in Torr, select catalog number 392501-2-TE-T

Replacement Gauges for Micro-Ion Plus Modules

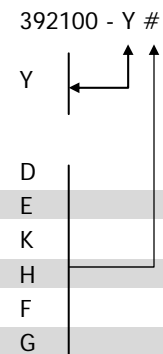
Replacement Gauge

Ion Gauge Filaments

Yttria-coated Iridium	Y
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Vacuum Fitting

NW16KF	D
NW25KF	E
NW40KF	K
1/2 inch VCR-type male	H
1.33-inch (NW16CF) ConFlat-type	F
2.75-inch (NW35CF) ConFlat-type	G



Micro-Ion® ATM Modules (Series 390)

Description	Price	Catalog Number
-------------	-------	----------------

Micro-Ion ATM Modules (CE Marked)

Select one of the output configurations and vacuum fitting to create the appropriate catalog number and determine the price (see the example below).

Analog output, no display (no setpoints in the analog version)	390410 - 0 - Y # - #
Analog output, with digital display (no setpoints in the analog version)	390411 - 0 - Y # - #
RS-485 interface, no display	390510 - # - Y # - #
RS-485 interface, with digital display	390511 - # - Y # - #
DeviceNet™ interface, no display	390610 - # - Y # - #
DeviceNet interface, with digital display	390611 - # - Y # - #

Setpoints

None	0
Two	2
Three	3

Ion Gauge Filaments

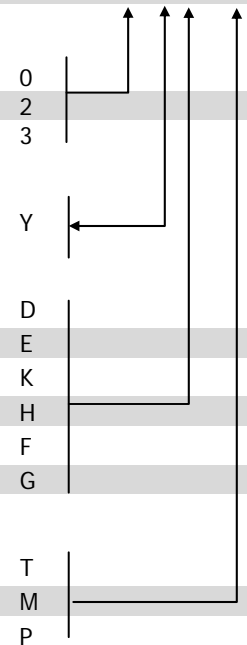
Yttria-coated Iridium	Y
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Vacuum Fitting

NW16KF	D
NW25KF	E
NW40KF	K
1/2 inch VCR-type male	H
1.33-inch (NW16CF) ConFlat®-type	F
2.75-inch (NW35CF) ConFlat-type	G

Measurement units:

Torr	T
Mbar	M
Pa	P



Example: To order a Micro-Ion ATM Module with RS-485 output, no display, two setpoints, Tungsten filaments, NW25KF vacuum fitting, and units in Torr, select catalog number 390510-2-TE-T

Analog/RS-485 Power Supply	390200-1
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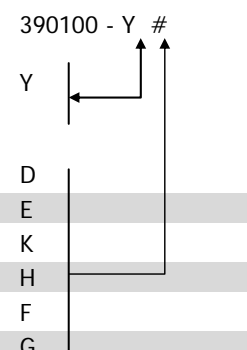
Replacement Gauges for Micro-Ion ATM Modules

Replacement Gauge

Ion Gauge Filaments	390100 - Y #
Yttria-coated Iridium	Y

Vacuum Fitting

NW16KF	D
NW25KF	E
NW40KF	K
1/2 inch VCR-type male	H
1.33-inch (NW16CF) ConFlat-type	F
2.75-inch (NW35CF) ConFlat-type	G



Convectron® ATM Modules (Series 385)

Description	Price	Catalog Number
-------------	-------	----------------

Convectron ATM Modules (CE Marked)

Select one of the output configurations and vacuum fitting to create the appropriate catalog number and determine the price (see the example below).

Analog output, no display		385001 - G #
RS-485 interface, no display		385002 - G # - #
RS-485 interface, with digital display		385003 - G # - #
DeviceNet interface, no display		385009 - G # - #
DeviceNet interface, with digital display		385007 - G # - #
DeviceNet interface, no display		385010 - G # - # *
DeviceNet interface, with digital display		385011 - G # - # *

*Originally preconfigured for Brooks only; available for direct customer sales since 4/23/10.

Vacuum Fitting

1/8 NPT, 1/2 inch tubulation	P	
1/4 inch VCR-type female	Q	
1/2 inch VCR-type female	R	
NW16KF	D	
NW25KF	E	
NW40KF	K	
1.33-inch (NW16CF) ConFlat®-type	F	
2.75-inch (NW35CF) ConFlat-type	G	

Measurement units:

Torr	T	
Mbar	M	
Pa	P	

Example: To order a Convectron ATM Module with RS-485 output, no display, NW16KF vacuum fitting, and units in Torr, select catalog number 385002-GD-T

Analog/RS-485 Power Supply	390200-1
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Replacement Gauges for Convectron ATM Modules

Replacement Gauge	385200 - G #
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Vacuum Fitting

1/8 NPT, 1/2 inch tubulation	P	
1/4 inch VCR-type female	Q	
1/2 inch VCR-type female	R	
NW16KF	D	
NW25KF	E	
NW40KF	K	
1.33-inch (NW16CF) ConFlat-type	F	
2.75-inch (NW35CF) ConFlat-type	G	

Micro-Ion® Plus Modules (Series 356)

Description	Price	Catalog Number
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Micro-Ion Plus Modules (CE Marked)

Choose one of the basic modules with yttria-coated iridium filaments and add the options below to create your catalog number and determine the price (see the example below). Power supply and cable are not included.

RS-485 interface, analog output, no display		356001 - Y # - #
RS-485 interface, analog output, digital display		356002 - Y # - #
DeviceNet™ interface, no display		356004 - Y # - #
DeviceNet interface, digital display		356005 - Y # - #
Vacuum Connection:		
NW16KF	D	
NW25KF	E	
NW40KF	K	
1.33 inch (NW16CF) ConFlat®-type	F	
2.75 inch (NW35CF) ConFlat-type	G	
1/2 inch VCR®-type male	H	
NW16KF Extended (4.2" long)	M	
NW25KF Extended (4.2" long)	N	
NW40KF Extended (4.6" long)	L	
Measurement units:		
Torr	T	
mbar	M	
Pa	P	

Example: To order a Micro-Ion Plus Module with RS-485, analog output, digital display, NW25KF fitting, and display in Torr, select catalog number 356002-YE-T.

Replacement gauges for Micro-Ion Plus Modules		356006 - Y #
Vacuum Connection:		
NW16KF	D	
NW25KF	E	
NW40KF	K	
1.33 inch (NW16CF) ConFlat-type	F	
2.75 inch (NW35CF) ConFlat-type	G	
1/2 inch VCR-type male	H	
NW16KF Extended (4.2" long)	M	
NW25KF Extended (4.2" long)	N	
NW40KF Extended (4.6" long)	L	

Optional Power Supply for Analog/RS-485 North America 115V		356021-1
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Accessory Power Supply for DeviceNet Version Only (CE Compliant)		
DeviceNet Power Supply		
		347039 - #
North American 115 Vac / Japan 100 Vac	1	
North American 240 Vac	2	
Universal Europe 220 Vac	3	
United Kingdom 240 Vac	4	

Mini-Convectron® Modules (Series 275)

Description	Price	Catalog Number
Mini-Convectron Modules, nonlinear analog output with complete electrical mating connector (CE Marked)		
Operating Power: 11.5 Vdc to 26.5 Vdc (power supply and cable are not included)		
1 process control setpoint relay		
1/8 NPT / 1/2 inch tubulation		275800-EU
1/4 inch VCR®-type female fitting		275801-EU
1/2 inch VCR-type female fitting		275863-EU
3/8 inch VCO®-type male fitting		275802-EU
1.33 inch (NW16CF) ConFlat®-type flange		275803-EU
2.75 inch (NW35CF) ConFlat-type flange		275804-EU
NW16KF flange		275806-EU
NW25KF flange		275807-EU
NW40KF flange		275808-EU
2 process control setpoint relays		
1/8 NPT / 1/2 inch tubulation		275870-EU
1/4 inch VCR-type female fitting		275871-EU
1/2 inch VCR-type female fitting		275867-EU
3/8 inch VCO-type male fitting		275872-EU
1.33 inch (NW16CF) ConFlat-type flange		275873-EU
2.75 inch (NW35CF) ConFlat-type flange		275874-EU
NW16KF flange		275876-EU
NW25KF flange		275877-EU
NW40KF flange		275878-EU
Mini-Convectron Modules with complete electrical mating connector (CE Marked)		
0 to 1 Torr linear analog output (0 - 10 Vdc) and nonlinear analog output (1 mTorr to 1000 Torr),		
No process control setpoint relays		
Operating power: 13 Vdc to 26.5 Vdc (power supply and cable are not included)		
Standard		
1/8 NPT / 1/2 inch tubulation		275850-EU
1/4 inch VCR®-type female fitting		275851-EU
1/2 inch VCR-type female fitting		275862-EU
3/8 inch VCO®-type male fitting		275852-EU
1.33 inch (NW16CF) ConFlat®-type flange		275853-EU
2.75 inch (NW35CF) ConFlat-type flange		275854-EU
NW16KF flange		275856-EU
NW25KF flange		275857-EU
NW40KF flange		275858-EU
RoHS		
1/8 NPT / 1/2 inch tubulation		275330-GP
1/4 inch VCR®-type female fitting		275330-GQ
1/2 inch VCR-type female fitting		275330-GR
3/8 inch VCO®-type male fitting		275330-GH
1.33 inch (NW16CF) ConFlat®-type flange		275330-GF
2.75 inch (NW35CF) ConFlat-type flange		275330-GG
NW16KF flange		275330-GD
NW25KF flange		275330-GE
NW40KF flange		275330-GK

Replacement Convectron® Gauges for Mini-Convectron Modules are listed on page 16.

See page 4 for an illustration of commonly used vacuum fittings and flanges.

See page 15 for information on NIST calibration service for Mini-Convectron Modules.

Mini-Convectron® Modules (Series 275) (Continued)

Description	Price	Catalog Number
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Mini-Convectron Modules with RS-485 interface, 2 process control setpoint relays, complete with electrical mating connector (CE Marked)

Operating Power: 11 Vdc to 26.5 Vdc (power supply and cable are not included)

Devices preset to Torr Units w/gold-plated tungsten sensor

1/8 NPT / 1/2 inch tubulation	275527-EU
1/4 inch VCR-type female fitting	275528-EU
1/2 inch VCR-type female fitting	275529-EU
3/8 inch VCO-type male fitting	275530-EU
1.33 inch (NW16CF) ConFlat-type flange	275531-EU
2.75 inch (NW35CF) ConFlat-type flange	275532-EU
NW16KF flange	275546-EU
NW25KF flange	275534-EU
NW40KF flange	275535-EU

Devices preset to Pascal or Mbar Units

Mini-Convectron Module w/gold-plated tungsten sensor 275546 - G # - #

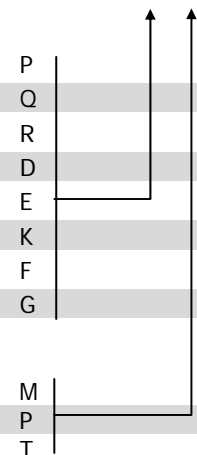
Mini-Convectron Module w/platinum sensor 275546 - P # - #

Flange/Fitting

1/8 NPT / 1/2 inch tubulation	P
1/4 inch VCR-type female fitting	Q
1/2 inch VCR-type female fitting	R
NW16KF flange	D
NW25KF flange	E
NW40KF flange	K
1.33 inch (NW16CF) ConFlat-type flange	F
2.75 inch (NW35CF) ConFlat-type flange	G

Measurement unit:

mbar	M
Pa	P
Torr *	T



*Torr available for 275546 platinum part numbers only; RS-485 for gold-plated tungsten preset Torr shown above.

Replacement Convectron® Gauges for Mini-Convectron Modules are listed on page 16.

See page 4 for an illustration of commonly used vacuum fittings and flanges.

See page 15 for information on NIST calibration service for Mini-Convectron Modules.

Mini-Convectron® Modules (Series 275) (Continued)

Description	Price	Catalog Number
Mini-Convectron Modules with 3-digit display, 2 process control setpoint relays, nonlinear analog output with complete electrical mating connector (CE Marked)		
Operating Power: 11.5 Vdc to 26.5 Vdc (power supply and cable are not included)		
Display in Torr		
1/8 NPT / 1/2 inch tubulation		275904-EU
1/4 inch VCR®-type female fitting		275905-EU
1/2 inch VCR-type female fitting		275906-EU
3/8 inch VCO®-type male fitting		275907-EU
1.33 inch (NW16CF) ConFlat®-type flange		275908-EU
2.75 inch (NW35CF) ConFlat-type flange		275909-EU
NW16KF flange		275911-EU
NW25KF flange		275912-EU
NW40KF flange		275913-EU
Display in Pascal		
1/8 NPT / 1/2 inch tubulation		275904-EU-P
1/4 inch VCR-type female fitting		275905-EU-P
1/2 inch VCR-type female fitting		275906-EU-P
3/8 inch VCO-type male fitting		275907-EU-P
1.33 inch (NW16CF) ConFlat-type flange		275908-EU-P
2.75 inch (NW35CF) ConFlat-type flange		275909-EU-P
NW16KF flange		275911-EU-P
NW25KF flange		275912-EU-P
NW40KF flange		275913-EU-P
Wall transformer power supply		
Wall transformer to convert 120 Vac to 12 Vdc, with 6 foot (1.8 meter) long cable and 15-pin connector for use with Mini-Convectrons with digital display. (UL Listed – not CE-Marked)		275933
NIST (<i>National Institutes of Standards and Technology</i>) traceable calibration for Series 275 Mini-Convectron Modules and 475 Convectron Controller systems. Includes the following data points: 1 mTorr, 100 mTorr, 1 Torr, 300 Torr, and 760 Torr. Available for new purchase and annual recertification.		NIST

Replacement Convectron® Gauges for Mini-Convectron Modules are listed on page 16. See page 4 for an illustration of commonly used vacuum fittings and flanges.

Mini-Convectron® Modules (Series 275) (Continued)

Description	Price	Catalog Number
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Mini-Convectron Modules with DeviceNet™ Interface and 2 process control setpoint relays (CE Marked)

Operating Power: 11 to 26 Vdc (power supply and cable are not included)

Choose a Mini-Convectron Module and add the options below to create your catalog number and determine the price (see the example below).

With gold-plated Tungsten sensor and No Display 275553 - G # - #

With gold-plated Tungsten sensor and 3-Digit Digital Display 275538 - G # - #

Flange/Fitting:

1/8 inch NPT / 1/2 inch tubulation	P
1/4 inch VCR®-type female	Q
1/2 inch VCR-type female	R
NW16KF	D
NW25KF	E
NW40KF	K
1.33 inch (NW16CF) ConFlat®-type	F
2.75 inch (NW35CF) ConFlat-type	G

Measurement unit:

Torr	T
mbar	M
Pa	P



Example: To order a Mini-Convectron DeviceNet Module with 3-digit display, NW16KF fitting, and display in Torr, select catalog number 275538-GD-T

Replacement Gauges for Mini-Convectron Modules, Gold-plated Tungsten Sensor (RoHS)

1/8 NPT / 1/2 inch tubulation	275810
1/4 inch VCR-type female fitting	275811
1/2 inch VCR-type female fitting	275864
3/8 inch VCO-type male fitting	275812
1.33 inch (NW16CF) ConFlat-type flange	275813
2.75 inch (NW35CF) ConFlat-type flange	275814
NW16KF flange	275816
NW25KF flange	275817
NW40KF flange	275818

Replacement Gauges for Mini-Convectron Modules, Platinum Sensor

275572 - P #

Flange/Fitting

1/8 NPT / 1/2 inch tubulation	P
1/4 inch VCR-type female	Q
1/2 inch VCR-type female	R
NW16KF	D
NW25KF	E
NW40KF	K
1.33 inch (NW16CF) ConFlat-type flange	F
2.75 inch (NW35CF) ConFlat-type flange	G
15mm OD Tubulation	B



See page 4 for an illustration of commonly used vacuum fittings and flanges.
See page 15 for information on NIST calibration service for Mini-Convectron Modules.

Convectron® Gauges (Series 275)

Description	Price	Catalog Number
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Convectron Gauges

For use with Series 316, 375, & 475 Convectron Gauge Controllers and Series 307, 358 & 370 Ionization Gauge Controllers.

Gold-plated Tungsten Filament

1/8 NPT / 1/2 inch tubulation		275071
1/4 inch VCR®-type female fittings		275185
1/2 inch VCR-type female fittings		275282
3/8 inch VCO®-type male fitting		275233
1.33 inch (NW16CF) rotatable ConFlat®-type flange		275256
2.75 inch (NW35CF) rotatable ConFlat-type flange		275238
NW16KF flange (welded)		275203
NW25KF flange (welded)		275196
NW40KF flange (welded)		275316

Platinum Filament

275320 - P #

Flange/Fitting

1/8 NPT / 1/2 inch tubulation	P	
1/4 inch VCR-type female	Q	
1/2 inch VCR-type female	R	
NW16KF	D	
NW25KF	E	
NW40KF	K	
1.33 inch (NW16CF) ConFlat-type flange	F	
2.75 inch (NW35CF) ConFlat-type flange	G	
15mm OD Tubulation	B	

See page 4 for an illustration of commonly used vacuum fittings and flanges.

Accessories

Zero pressure simulator

275243

Used to set zero vacuum point on all Convectron Controllers.

Variable pressure simulator

275244

Used to calibrate all Convectron Controllers throughout the pressure range.

RoHS Convectron® Gauge Controllers (Series 475)

Description	Price	Catalog Number
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Controller for a Convectron Gauge (CE Marked and RoHS)

Operating Power 12 to 24 Vdc (power supply and cable are not included – see Power Supplies, below)

Choose one of the basic controllers and add the options below to create your catalog number and determine the price. See the example below. Convectron Gauges are listed on page 17.

1/8 DIN, panel mount with Graphics Display

Interface options (Slot X):

None		
RS-232	A	
RS-485	B	

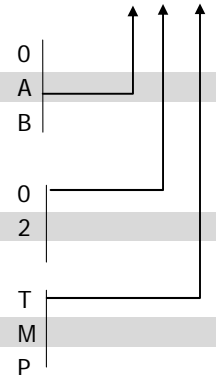
Setpoint option (Slot Y):

None		
2 setpoint relays	2	

Measurement units:

Torr		
mbar	M	
Pa	P	

475001 - # # - #



Example: To order a Series 475 controller with RS232 interface, two setpoint relays and display in Torr, select catalog number 475001-A2-T

Power Supplies:

CE Compliant, Universal power supply		475008 - #
Select the desired power cord plug type, below.		
North America 115 Vac / Japan 100 Vac	1	
North America 240 Vac	2	
Universal Europe 220 Vac	3	
United Kingdom 240 Vac	4	

See page 4 at the front of this price list for illustrations of the power cord connectors.

Example: To order a power supply and power cord for Universal Europe 220 Vac, select catalog number 475008-3 = \$85.00

Convectron Gauge Cables

10 feet (3 meters)	475012-10
25 feet (7.6 meters)	475012-25
50 feet (15.2 meters)	475012-50
100 feet (30.5 meters)	475012-100
200 feet (61 meters)	475012-200
500 feet (152.4 meters)	475012-500

NIST (*National Institutes of Standards and Technology*) traceable calibration for Series 275 Mini-Convectron Modules and 475 Convectron Controller systems. Includes the following data points: 1 mTorr, 100 mTorr, 1 Torr, 300 Torr, and 760 Torr. Available for new purchase and annual recertification. NIST

Series 316 Vacuum Gauge Controllers

Description	Price	Catalog Number
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Controller with 3-line display

Choose one of the basic controllers and add the options below to create your catalog number and determine the price. See the example below. Convectron® Gauges are listed on page 17; Thermocouple gauge is listed below.

Configured for Convectron Gauge on Channel A

Half-rack mount		316501 - # # # - # #
Left mount for 19-inch rack		316502 - # # # - # #
Center mount for 19-inch rack		316503 - # # # - # #

Configured for Thermocouple Gauge on Channel A

Half-rack mount		316505 - # # # - # #
Left mount for 19-inch rack		316506 - # # # - # #
Center mount for 19-inch rack		316507 - # # # - # #

Interface Options (Slot X):

None	0	
RS-232	A	
RS-485	B	
IEEE-488	C	

Gauge Options (Slot Y):

None	0	
Dual Convectron	1	
Convectron / Capacitance Diaphragm	2	
Dual Thermocouple	3	

Setpoint Options (Slot Z):

None	0	
2 setpoint relays for channel A	A	
6 setpoint relays, 2 per channel	B	

Display Options - Measurement units

Torr	T	
mbar	M	
Pa	P	

Power Cord Options:

North America 115V / Japan 100 Vac	1	
North America 240 V	2	
Universal Europe 220 V	3	
United Kingdom 240 V	4	

Example: To order a Series 316 Vacuum Gauge Controller with pressure readout for Convectron Gauges, half-rack mount, RS-232 interface, dual Convectron Gauge operation, 2 setpoint relays, display in Torr, and North America 115 V power cord, select catalog number: 316501-A1A-T1

Thermocouple Gauge

DV6-R, with metal alignment key (the metal thermocouple body is brazeable Monel)		270006
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Series 316 Vacuum Gauge Controllers (Continued)

Description	Price	Catalog Number
Option Cards (for field installation)		
RS-232 computer interface		316021
RS-485 computer interface		316066
IEEE-488 computer interface		316022
Dual Convector® Gauge, channels B and C		316016
Convector Gauge/capacitance diaphragm, channels B and C		316026
Dual thermocouple gauge, channels B and C		316018
Process control with 2 setpoint relays for channel A		316019
Process control with 6 setpoint relays, 2 per channel		316020
Optional Installation Rack-Mount Hardware (for field installation)		
Control unit on the left or right side for 19-inch rack		307010
Control unit in the center for 19-inch rack		307011
2 control units side-by-side for 19-inch rack		307021
Cables for:		
Single Convector Gauge		
10 feet (3 meters)		316007
25 feet (7.6 meters)		316008
50 feet (15.2 meters)		316009
Dual Convector Gauges		
10 feet (3 meters)		303040-10
25 feet (7.6 meters)		303040-25
50 feet (15.2 meters)		303040-50
100 feet (30.5 meters)		303040-100
200 feet (61 meters)		303040-200
Single thermocouple gauge		
10 feet (3 meters)		316011
25 feet (7.6 meters)		316012
50 feet (15.2 meters)		316013
Dual thermocouple gauges		
10 feet (3 meters)		307054
25 feet (7.6 meters)		307055
50 feet (15.2 meters)		307056
Convector Gauge / capacitance diaphragm gauge cables		
10 feet (3 meters)		307027
25 feet (7.6 meters)		307028
50 feet (15.2 meters)		307029
IEEE-488		
3.3 feet (1 meter)		303042
6.6 feet (2 meters)		303043
13.2 feet (4 meters)		303044

Micro-Ion® Modules (Series 354)

Description	Price	Catalog Number	
Micro-Ion Modules (CE Marked)			
Choose one of the basic modules and add the options below to create your catalog number and determine the price. See the example below. Power supply and cable are not included.			
Analog output, no setpoint relays			
No digital display		354001 - # # - #	
3-digit display		354002 - # # - #	
RS-485 interface, 1 setpoint relay			
No digital display (Torr only)		354005 - # # - T	
DeviceNet™ interface, 2 setpoint relays			
No digital display		354009 - # # - #	
3-digit display		354006 - # # - #	
Filaments:			
dual yttria-coated iridium	Y		
dual tungsten	T		
Flange/Fitting:			
NW16KF	D		
NW25KF	E		
NW40KF	K		
1.33 inch (NW16CF) ConFlat®-type	F		
2.75 inch (NW35CF) ConFlat-type	G		
1/2 inch VCR®-type male	H		
NW16KFL	M		
NW25KFL	N		
NW40KFL	L		
Measurement units:			
Torr	T		
mbar	M		
Pa	P		
Example: To order a Micro-Ion DeviceNet Module with 3-digit display, dual yttria-coated iridium filaments, NW25KF fitting, and display in Torr, select catalog number 354006-YE-T			
Accessories			
Baffle, Field Install		354038	

Micro-Ion® Module Replacement Gauges (Series 354)

Description	Price	Catalog Number
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Replacement gauges for Micro-Ion Modules Choose the options below to create your catalog number.

Replacement Gauge

354003 - # #

Filament:

- dual Yttria-coated Iridium
- dual tungsten



Flange/Fitting:

- NW16KF
- NW25KF
- NW40KF
- 1.33 inch (NW16CF) ConFlat-type
- 2.75 inch (NW35CF) ConFlat-type
- 1/2 inch VCR-type male
- NW16KFL
- NW25KFL
- NW40KFL

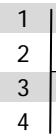


Accessory Power Supply for DeviceNet Version Only (CE Compliant)

DeviceNet Power Supply

347039 - #

- North American 115V / Japan 100 Vac
- North American 240V
- Universal Europe 220V
- United Kingdom 240V



Micro-Ion® Vacuum Gauges (Series 355)

Description	Price	Catalog Number
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Micro-Ion Gauges (Not for use with Series 354 Micro-Ion Modules.)

Choose the options below to create your catalog number.

Gauges

355001 - # #

Filament:

dual Yttria-coated Iridium	Y
dual tungsten	T

Flange/Fitting:

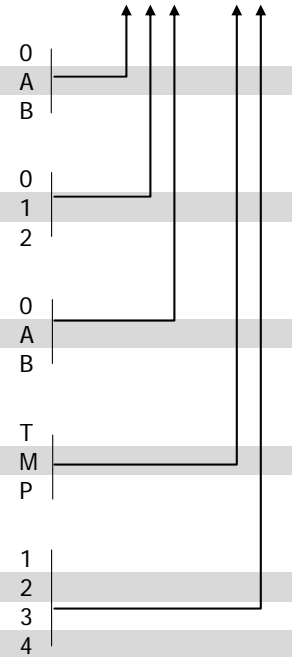
3/4 inch port	A
15 mm port	B
18 mm port	C
1 inch port	J
NW16KF flange	D
NW25KF flange	E
NW 40KF flange	K
1.33 inch (NW16CF) ConFlat®-type flange	F
2.75 inch (NW35CF) ConFlat-type flange	G
1/2 inch VCR®-type male fitting	H

Cables for Micro-Ion Gauges

10 feet (3 meters)	358011-10
25 feet (7.6 meters)	358011-25
50 feet (15.2 meters)	358011-50

Micro-Ion® Gauge Controllers (Series 358)

Description	Price	Catalog Number
Controller, for a Micro-Ion Gauge, with 3-line display, electron bombardment degas, and remote input/output interface (CE Marked¹)		
Choose one of the basic controllers and add the options below to create your catalog number and determine the price. See the example below. Micro-Ion Gauges are listed on page 22, Convectron Gauges are listed on page 17.		
Half-rack mount		358501 - # # # - # #
Left mount for 19-inch rack		358502 - # # # - # #
Center mount for 19-inch rack		358503 - # # # - # #
Interface Options (Slot X):		
None		0
RS-232		A
RS-485/422		B
Gauge Options (Slot Y):		
None		0
Dual Convectron®		1
Capacitance Manometer/Convectron Gauge ¹		2
Setpoint Options (Slot Z):		
None		0
2 setpoint relays for Micro-Ion Gauge		A
6 setpoint relays, 2 per channel		B
Display Options - Measurement units:		
Torr		T
mbar		M
Pa		P
Power Cord Options:		
North America 115 Vac / Japan 100 Vac		1
North America 240 Vac		2
Universal Europe 220 Vac		3
United Kingdom 240 Vac		4



Example: To order a Series 358 Micro-Ion Gauge Controller with half-rack mount, RS-485 interface, dual Convectron Gauge operation, 6 setpoint relays, display in Torr, and North America 115 V power cord, select catalog number: 358501-B1B-T1

Note: 1. Capacitance Manometer/Convectron® Gauge option is not CE Marked.

Micro-Ion® Gauge Controllers (Series 358) (Continued)

Description	Price	Catalog Number
Option Cards (for field installation)		
RS-485/422 computer interface		358006
RS-232 computer interface		358007
Dual Convectron® Gauge module		358002
Process control with 2 setpoint relays for ionization gauge		358004
Process control with 6 setpoint relays, 2 per channel		358003
Optional Rack-mount Installation Hardware (for field installation)		
Control unit on the left or right side for 19-inch rack		370010
Control unit in the center for 19-inch rack		370011
2 control units side-by-side for 19-inch rack		370021
Cables for:		
Micro-Ion Gauges		
10 feet (3 meters)		358011-10
25 feet (7.6 meters)		358011-25
50 feet (15.2 meters)		358011-50
Dual Convectron Gauges		
10 feet (3 meters)		303040-10
25 feet (7.6 meters)		303040-25
50 feet (15.2 meters)		303040-50
100 feet (30.5 meters)		303040-100
200 feet (61 meters)		303040-200
Capacitive Manometer/Convectron Gauges		
10 feet (3 meters)		307027
25 feet (7.6 meters)		307028
50 feet (15.2 meters)		307029

Note: Series 355 Micro-Ion Gauges are listed on page 23.

Stabil-Ion® Modules (Series 347)

Description	Price	Catalog Number
Stabil-Ion Module plus Gauge, no cable Select gauge type to create the appropriate catalog number.		
Analog output, no relays, Yttria-coated iridium gauge filament, 2.75 ConFlat® fitting, measurement unit in Torr		347054 - Y # - T
Gauge Type:		
Extended Range		E
Ultra-High Vacuum (UHV)		U

Example: To order a Stabil-Ion Module with extended range gauge, select catalog number 347054-YE-T.

Stabil-Ion® Gauge Controller (Series 370)

Description	Price	Catalog Number
Controller, for a Stabil-Ion Gauge, with 3-line display, electron bombardment degas, sequential operation of a second ion gauge, and remote input/output interface (CE Marked)		
Choose one of the basic controllers and add the options below to create your catalog number and determine the price. See the example below. Convectron® Gauges are listed on page 17; Stabil-Ion Gauges are listed below.		
Left mount, side-by-side with power supply for 19-inch rack		370501 - # # # - # #
Half-rack mount, remote power supply		370502 - # # # - # #
Interface Options (Slot X):		
None		0
RS-232		A
RS-485		B
IEEE-488		C
Gauge Options (Slot Y):		
None		0
Dual Convectron		1
Convectron/Capacitance Manometer ¹		2
Setpoint Options (Slot Z):		
None		0
2 setpoint relays for Stabil-Ion Gauge		A
6 setpoint relays, 2 per channel		B
Display Options - Measurement units:		
Torr		T
mbar		M
Pa		P
Power Cord Options:		
North America 115 Vac / Japan 100 Vac		1
North America 240 Vac		2
Universal Europe 220 Vac		3
United Kingdom 240 Vac		4

Example: To order a Series 370 Stabil-Ion Gauge Controller and power supply mounted side-by-side for 19-inch rack, IEEE-488 interface, dual Convectron Gauge operation, 6 setpoint relays, display in Torr, and North America 115 V power cord, select catalog number: 370501-C1B-T1

Notes: 1. Capacitance Manometer/Convectron® Gauge option is not CE Marked.

Stabil-Ion Gauge with dual yttria-coated iridium filaments and Memory Module

Extended Range Gauge	370120
UHV Range Gauge	370121

Cables for:

Convectron Gauge / capacitance diaphragm gauge

10 feet (3 meters)	307027
25 feet (7.6 meters)	307028
50 feet (15.2 meters)	307029

IEEE-488

3.3 feet (1 meter)	303042
6.6 feet (2 meters)	303043
13.2 feet (4 meters)	303044

Stabil-Ion® Gauge Controller (Series 370) (Continued)

Description	Price	Catalog Number
Option Cards (for field installation)		
RS-232 computer interface		370110
RS-485 computer interface		370150
IEEE-488 computer interface		370111
Dual Convector® Gauge		370106
Process control with 2 setpoint relays for ionization gauge		370108
Process control with 6 setpoint relays, 2 per channel		370107
Optional Rack-mount Installation Hardware (for field installation)		
Control unit on the left or right side for 19-inch rack		370010
Control unit in the center for 19-inch rack		370011
2 control units side-by-side for 19-inch rack		370021
1 or 2 power supplies for 19-inch rack		370008
1 controller and 1 power supply side-by-side in 19-inch rack, beige		370009
Cables for:		
Stabil-Ion Gauge, side-by-side mounting		
10 feet (3 meters)		360116-10
25 feet (7.6 meters)		360116-25
50 feet (15.2 meters)		360116-50
100 feet (30.5 meters)		360116-100
200 feet (61 meters)		360116-200
Stabil-Ion Gauge, remote mounting of power supply		
10 feet (3 meters)		360117-10
25 feet (7.6 meters)		360117-25
Dual Convector Gauges		
10 feet (3 meters)		303040-10
25 feet (7.6 meters)		303040-25
50 feet (15.2 meters)		303040-50
100 feet (30.5 meters)		303040-100
200 feet (61 meters)		303040-200

Bayard-Alpert Type Ionization Gauges (Series 274)

Description	Price	Catalog Number
Glass Tubulated Gauges		
Single thoria-coated iridium filament		
3/4 inch Pyrex glass inlet port		274002
3/4 inch Kovar metal inlet port		274003
1 inch Pyrex glass inlet port		274005
1 inch Kovar metal inlet port		274006
15 mm Pyrex glass inlet port		274036
NW25KF flange with 1 inch port		274032
1.33 inch (NW16CF) non-rotatable, 3/4 inch port		274020
2.75 inch (NW35CF) non-rotatable, 3/4 inch port		274007
2.75 inch (NW35CF) non-rotatable, 1 inch port		274008
Dual tungsten filaments		
3/4 inch Pyrex glass inlet port		274012
3/4 inch Kovar metal inlet port		274013
1 inch Pyrex glass inlet port		274015
1 inch Kovar metal inlet port		274016
15 mm Pyrex glass inlet port		274037
1.33 inch (NW16CF) non-rotatable, 3/4 inch port		274021
2.75 inch (NW35CF) non-rotatable, 3/4 inch port		274017
2.75 inch (NW35CF) non-rotatable, 1 inch port		274018
Nude Gauges		
Single thoria-coated iridium filament (resistive or electron bombardment degas)		
NW40KF flange with pin guard/locking strain relief		274053
2.75 inch (NW35CF) non-rotatable		274028
2.75 inch (NW35CF) non-rotatable, pin guard/locking strain relief		274043
Replacement filament		274029
UHV Nude Gauges		
Dual thoria-coated iridium filament (electron bombardment degas only)		
NW40KF flange with pin guard/locking strain relief		274058
2.75 inch (NW35CF) non-rotatable		274023
2.75 inch (NW35CF) non-rotatable, pin guard/locking strain relief		274042
Replacement filaments		274025
Dual tungsten filaments (electron bombardment degas only)		
NW40KF flange		274050
NW40KF flange, pin guard/locking strain relief		274057
2.75 inch (NW35CF) non-rotatable		274022
2.75 inch (NW35CF) non-rotatable, pin guard/locking strain relief		274041
Replacement filaments		274024
Accessories		
Glass tubulated test gauge with thoria-coated iridium filament, pumped down to approximately 10^{-5} Torr and sealed off. NOT to be used as a pressure reference.		274031

Series 307 Vacuum Gauge Controllers

Description	Price	Catalog Number
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Controller, for Series 274 Bayard-Alpert gauges, with 3-line display, sequential operation of a second ionization gauge, and remote input/output interface

Choose one of the basic controllers and add the options below to create your catalog number and determine the price. See the example below. Ionization gauges are listed on page 29, Convectron® Gauges are listed on page 17; Thermocouple gauge is listed on pages 19, 31.

Configured for Series 274 glass tubulated or nude (not UHV) Bayard-Alpert gauges with resistive degas

Left mount, side-by-side with power supply for 19-inch rack	307502 - # # # - # #
Half-rack mount, remote power supply	307501 - # # # - # #

Configured for Series 274 UHV nude Bayard-Alpert gauges with electron bombardment degas, UHV electrometer (reads to 2x10⁻¹¹ Torr)

Left mount, side-by-side with power supply for 19-inch rack	307508 - # # # - # #
Half-rack mount, remote power supply	307507 - # # # - # #

Interface Options (Slot X):

None	0
RS-232	A
RS-485	B
IEEE-488	C
Linear Analog Output	D

Gauge Options (Slot Y):

None	0
Dual Convectron	1
Convectron / Capacitance Diaphragm	2
Dual Thermocouple	3

Setpoint Options (Slot Z):

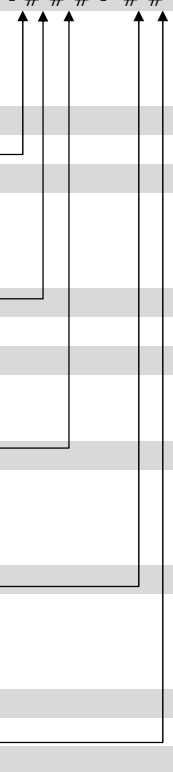
None	0
2 setpoint relays for ion gauge	A
6 setpoint relays, 2 per channel	B

Display Options - Measurement units:

Torr	T
mbar	M
Pa	P

Power Cord Options:

North America 115 Vac / Japan 100 Vac	1
North America 240 Vac	2
Universal Europe 220 Vac	3
United Kingdom 240 Vac	4



Example: To order a Series 307 Vacuum Gauge Controller with half-rack mount, remote power supply, resistive degas, linear analog output, dual Convectron Gauge operation, 6 setpoint relays, display in Torr, and North America 115 V power cord, select catalog number: 307501-D1B-T1

Series 307 Vacuum Gauge Controllers (Continued)

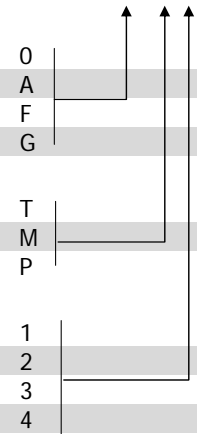
Description	Price	Catalog Number
Option Cards (for field installation)		
RS-232 computer interface		307019
RS-485 computer interface		307262
IEEE-488 computer interface		307020
Linear analog output for thermocouple and ionization gauges		307100
Dual Convectron® Gauge		307013
Convectron Gauge/capacitance diaphragm gauge		307026
Dual Thermocouple Gauge		307014
Process control with 2 setpoint relays for ionization gauge		307018
Process control with 6 setpoint relays, 2 per channel		307017
Remote control interface		307012
Optional Installation Rack-Mount Hardware (for field installation)		
Power supply and control unit side-by-side for 19-inch rack		307009
Control unit on the left or right side for 19-inch rack		307010
Control unit in the center of 19-inch rack		307011
2 control units side-by-side for 19-inch rack		307021
1 or 2 power supplies for 19-inch rack		307008
Power supply in half-rack panel		307114
Thermocouple Gauge		
DV6-R, with metal alignment key (the metal thermocouple body is brazeable Monel)		270006
Power Supplies, Field Replacement		
Sequential ionization gauge, EB degas, 220 VAC		307253
Sequential ionization gauge, EB degas, 115 VAC		307254
Sequential ionization gauge, resistive degas, 220 VAC		307255
Sequential ionization gauge, resistive degas, 115 VAC		307256
Cables for Tubulated Glass Ionization Gauges		
For side-by-side mounting		
10 feet (3 meters)		307042
25 feet (7.6 meters)		307043
50 feet (15.2 meters)		307044
For remote mounting of power supply		
10 feet (3 meters)		307030
25 feet (7.6 meters)		307031
50 feet (15.2 meters)		307032

Series 307 Vacuum Gauge Controllers (Continued)

Description	Price	Catalog Number
Cables for Nude Ionization Gauges		
With push-on pins, side-by-side mounting		
10 feet (3 meters)		307046
25 feet (7.6 meters)		307047
50 feet (15.2 meters)		307048
With push-on pins, remote mounting of power supply		
10 feet (3 meters)		307034
25 feet (7.6 meters)		307035
50 feet (15.2 meters)		307036
With pin guard/locking strain relief for electron bombardment degas, side-by-side mounting		
10 feet (3 meters)		307046-CE*
25 feet (7.6 meters)		307047-CE*
50 feet (15.2 meters)		307048-CE*
With pin guard/locking strain relief for electron bombardment degas, remote mounting of power supply		
10 feet (3 meters)		307034-CE*
25 feet (7.6 meters)		307035-CE*
50 feet (15.2 meters)		307036-CE*
With pin guard/locking strain relief for resistive degas, side-by-side mounting		
10 feet (3 meters)		307046-CR*
25 feet (7.6 meters)		307047-CR*
50 feet (15.2 meters)		307048-CR*
With pin guard/locking strain relief for resistive degas, remote mounting of power supply		
10 feet (3 meters)		307034-CR*
25 feet (7.6 meters)		307035-CR*
50 feet (15.2 meters)		307036-CR*
* Bakeable to 150°C. For higher temperature bakeable cables contact Brooks Customer Support.		
Cables for:		
Dual Convector Gauges		
10 feet (3 meters)		303040-10
25 feet (7.6 meters)		303040-25
50 feet (15.2 meters)		303040-50
100 feet (30.5 meters)		303040-100
200 feet (61 meters)		303040-200
Dual thermocouple gauges		
10 feet (3 meters)		307054
25 feet (7.6 meters)		307055
50 feet (15.2 meters)		307056
Convector Gauge / capacitance diaphragm gauge		
10 feet (3 meters)		307027
25 feet (7.6 meters)		307028
50 feet (15.2 meters)		307029
IEEE-488		
3.3 feet (1 meter)		303042
6.6 feet (2 meters)		303043
13.2 feet (4 meters)		303044

Series 350 UHV Ionization Gauge Controllers

Description	Price	Catalog Number
Controller, for a Series 274 UHV nude Bayard-Alpert gauge, with 1-line display, electron bombardment degas, and remote input/output interface (CE Marked)		
UHV Ionization gauges are listed on page 29.		
Half-rack mount		350501 - # - # #
Left mount for 19-inch rack		350502 - # - # #
Center mount for 19-inch rack		350503 - # - # #
Half-rack mount, 3 digit display		350504- # - # #
Options:		
None		0
RS-232		A
RS-232 or RS-485 switchable with 4 setpoint relays		F
2 setpoint relays for ion gauge		G
Display Options - Measurement units:		
Torr		T
mbar		M
Pa		P
Power Cord Options:		
North America 115 Vac		1
North America 240 Vac		2
Universal Europe 220 Vac		3
United Kingdom 240 Vac		4

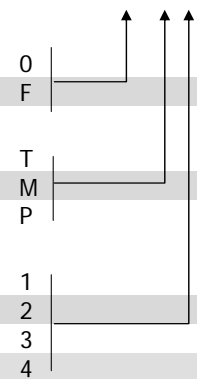


Example: To order a Series 350 UHV Ionization Gauge Controller with 3-line display, half-rack mount, RS-232 or RS-485 switchable interface with 4 setpoint relays, display in Torr, and North America 115 V power cord, select catalog number: 350501-G-T1

Controller, for a Series 274 UHV nude Bayard-Alpert gauge and dual Convectron® Gauge operation, with 3-line display, electron bombardment degas, and remote input/output interface (CE Marked)

UHV Ionization gauges are listed on page 26; Convectron Gauges are listed on page 17.

Half-rack mount		350507 - # - # #
Left mount for 19-inch rack		350508 - # - # #
Center mount for 19-inch rack		350509 - # - # #
Options:		
None		0
RS-232 or RS-485 switchable with 4 setpoint relays		F
Display Options - Measurement units:		
Torr		T
mbar		M
Pa		P
Power Cord Options:		
North America 115 V		1
North America 240 V		2
Universal Europe 220 V		3
United Kingdom 240 V		4



Example: To order a Series 350 UHV Ionization Gauge Controller with 3-line display, half-rack mount, RS-232 or RS-485 switchable interface with 4 setpoint relays, display in Torr, and North America 115 V power cord, select catalog number: 350507-F-T1

Series 350 UHV Ionization Gauge Controllers (Continued)

Description	Price	Catalog Number
Option Cards for Controller with 1-line display (for field installation)		
RS-232 computer interface		350003
RS-485 with 4 setpoint relays for ion gauge		350027
2 setpoint relays for ion gauge		350002
Option Card for Controller with 3-line display (for field installation)		
RS-232 or RS-485 switchable interface with 4 setpoint relays		350027
Optional Installation Hardware (for field installation)		
Rack-mount kits		
Control unit on the left or right side for 19-inch rack		307010
Control unit in the center for 19-inch rack		307011
2 control units side-by-side for 19-inch rack		307021
Cables wired with internal collector cable and dual-filament switching		
Nude ionization gauges with push-on pins		
10 feet (3 meters)		350004
25 feet (7.6 meters)		350005
50 feet (15.2 meters)		350006
Nude ionization gauges with pin guard/locking strain relief		
10 feet (3 meters)		350004-C*
25 feet (7.6 meters)		350005-C*
50 feet (15.2 meters)		350006-C*
Cables for:		
Dual Convector® Gauges		
10 feet (3 meters)		303040-10
25 feet (7.6 meters)		303040-25
50 feet (15.2 meters)		303040-50
100 feet (30.5 meters)		303040-100
200 feet (61 meters)		303040-200

* Bakeable to 150°C. For higher temperature bakeable cables contact Brooks Customer Support.

Series 203 Variable Leak Valves

Description	Price	Catalog Number
Manual Variable Leak Valves		
1/4 inch stainless steel tubulation on both ports, no flanges		203019 - # #
1.33 inch (NW16CF) ConFlat®-type flanges on both ports		203021 - # #
2.75 inch (NW35CF) ConFlat-type flanges on both ports		203017 - # #
ConFlat-type flanges, 2.75 inch (NW35CF) on port A and 1.33 inch (NW16CF) on port B		203038 - # #
1/4 inch VCR®-type female fittings on both ports		203036 - # #
1/4 inch VCO®-type female fittings on both ports		203041 - # #
Bend styles for Series 203 Leak Valves (see the illustration below):		
Style 01 (See note 1 below)	01	
Style 02	02	
Style 03 (See note 2 below)	03	
Style 04	04	
Style 05 (See note 2 below)	05	

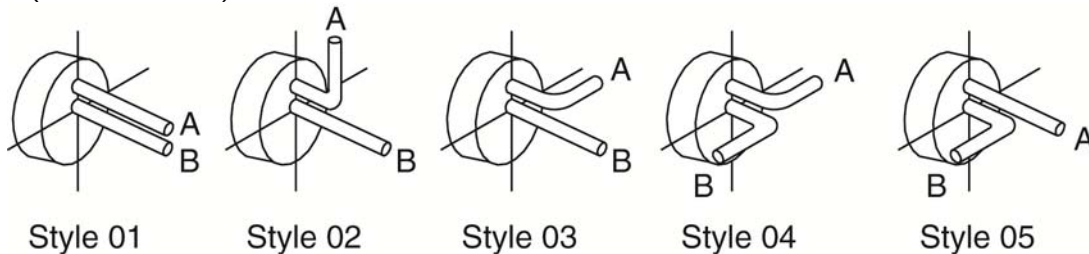
Example: To order a Series 203 Variable Leak Valve with 1.33 inch ConFlat fittings on both ports and tubulation bend styles 03, select catalog number: 203021-03

Replacement Valve Bodies

1/4 inch stainless steel tubulation on both ports, no flanges	203014 - # #
1.33 inch (NW16CF) ConFlat-type flanges on both ports	203022 - # #
2.75 inch (NW35CF) ConFlat-type flanges on both ports ²	203018 - # #
2.75 inch (NW35CF) on port A and 1.33 inch (NW16CF) on port B	203039 - # #
1/4 inch VCR-type female fittings on both ports	203037 - # #
1/4 inch VCO-type female fittings on both ports	203042 - # #

Bend styles for Series 203 Leak Valves (see the illustration below):

Style 01 (See note 1 below)	01	
Style 02	02	
Style 03 (See note 2 below)	03	
Style 04	04	
Style 05 (See note 2 below)	05	



Bend Styles for Series 203 Valves

- Notes:**
1. Bend style 01 is only available for catalog numbers 203019 and 203014.
 2. Bend styles 03 and 05 are not available with catalog numbers 203017 and 203018.
 3. Use Center Port B as the inlet port if the inlet pressure is over 25 psig.

Bakeout Clamp for 203 Leak Valve 006771

Series 204 One-inch Gold Seal Valve, Ultra-high Vacuum Valves

Replacement Parts

Replacement nosepiece	204008
Replacement nosepiece kit with installation tweezers	204014

Brooks Automation, Inc.
6450 Dry Creek Pkwy • Longmont, Colorado 80503-9501 • USA
Phone 1-303-652-4400 • 1-800-776-6543 • Fax 1-303-652-2844
Order online at www.brooks.com

Technical support is available 24 hours a day, 365 days a year through
Brooks GUTS Support at 1-800-367-4887.