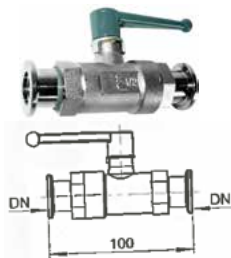


Vacuum Control | Valves & Regulators

Fine Vacuum 2-Way Ball Valve

- Handle to turn valve off/on
- Leak tight in both directions



Leak rate $<10^{-9}$ mbar l/s. Materials of construction: Brass nickel plated valve body, polished brass ball, graphitized plastic and FFKM seals. Straight thru flow.

Type DN...KF	A mm	CAT. No.
DN 16 (NW16)	100	700047
DN 25 (NW25)	130	700048
DN 40 (NW40)	160	700049

High Vacuum Butterfly Valves

- Very high conductance
- Quick open / quick close with positive locks
- Straight thru flow

Leak rate $<10^{-7}$ mbar l/s. Materials of construction: Housing in stainless steel or aluminum and seal made of FKM.

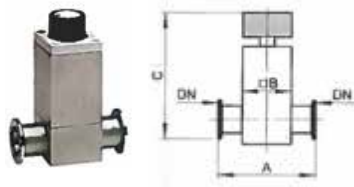


Type DN...KF	Housing Material	A mm	B mm	C mm	CAT. No.
VK 16 HE	Stainless Steel	65	50	110	704522
VK 25 HE	Stainless Steel	80	50	130	704523
VK 40 HE	Stainless Steel	90	60	140	704524
VK 16 HA	Aluminum	65	50	110	704526
VK 25 HA	Aluminum	80	50	130	704527
VK 40 HA	Aluminum	90	60	140	704528

High Vacuum In-Line Valve

- Long life bellow seal
- High conductance
- Leak tight in both directions

Leak rate of 10^{-9} mbar l/s. Materials of constructions: Housing and bellows made of stainless steel.

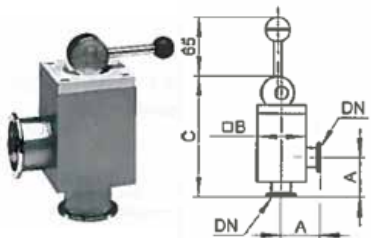


Type DN...KF	A mm	B mm	C mm	CAT. No.
VS 16 HSE	80	50	130	700113
VS 25 HSE	100	50	135	700104
VS 40 HSE	130	70	170	700114

High Vacuum Angle Valve

- Long life bellow seal
- High conductance
- Leak tight in both directions

Leak rate of 10^{-9} mbar l/s. Materials of constructions: Housing and bellows made of stainless steel.



Type DN...KNF	A mm	B mm	C mm	CAT. No.
VA 16 HE	40	50	130	700112
VA 25 HE	50	50	135	700102
VA 40 HE	65	70	155	700103

Vacuum Regulator With Inlet Separator Jar

The 2585K-50 and 2565K-50 include an inlet trap to help prevent ingestion of fluids into the pump, a dial gauge for continuous vacuum level monitoring and a regulator bleed valve to adjust vacuum levels. Both models have 3/8" inlet hose barb, 2585 has 3/8" NPT male mount and 2565 has 1/4" NPT male mount



2585K-50 /
2565K-50

Pump Model	Connection	CAT. No.
2585, 2581, 2580	3/8" inlet borse barb, 3/8" NPT male mount	2585K-50
2567, 2563, 2562, 2561	3/8" inlet borse barb, 1/4" NPT male mount	2565K-50

Vacuum and Pressure Regulator For WOB-L Vacuum Pressure Station

The 2522K-05 vacuum regulator is designed to run from slightly below atmospheric to the maximum vacuum level of the pump.

The 2522K-06 pressure regulator is designed to control from atmospheric to the maximum rated pressure of the pump.



2522K-05

2522K-06

Pump Model	Connection	CAT. No.
2522, 2534, 2546	1/4" male NPT, to vacuum inlet	2522K-05
2522, 2534, 2546	1/4" male NPT, to pressure inlet	2522K-06

Vacuum Regulator With Dial Gauge



Chemical resistant vacuum bleed valve regulators with stainless steel gauges, polypropylene construction with PVDF hose barb for 1/4"(8mm) ID vacuum hose.

Pump Model	Connection	CAT. No.
2052,2054, MP/MPC 301 Z, 601 E, 901 Z, 1201 E	1/4" SPT male mount	700458
MP/MPC 095 Z, 110 E, MPC 105 T, MPC 155 Z	Mounts to shroud	700459

Vacuum Regulator With Digital Gauge



Chemical resistant vacuum bleed valve regulator digital gauge.

Pump Model	Connection	CAT. No.
MP/MPC 095 Z, 110 E, MPC 105 T, MPC 155 Z	Mounts to shroud	700459-01
MP/MPC 095 Z, 110 E, MPC 105 T, MPC 155 Z	Mounts to shroud	700459-02

Vacuum Regulator With Liquid Trap



Chemical resistant vacuum bleed valve regulators with stainless steel gauges, polypropylene construction with PVDF hose barb for 1/4"(8mm) ID vacuum hose.

Pump Model	Connection	CAT. No.
MP/MPC 095 Z, 110 E, MPC 105 T, MPC 155 Z	Mounts to shroud	700458-02
MPC 301 E	1/4" SPT male mount	700458-01

Wide Range Vacuum Gauge & Controller



MRV 100



CAP 101/121



PIZA 111/111 cr



PEN 101



4 Sensor Switch Box

- Dual display shows pressure and operating status
- Control external process equipment

Model MRV 100 will measure the vacuum pressure measurement from atmospheric pressure to 10-8 mbar(torr) depending on sensor. Order separately the sensor that matches with the operating vacuum pressure range of your vacuum process or buy a kit with MVR100, sensors, etc. The gauge automatically searches for the connected sensor and initializes the respective interface. Vacuum pressure readout selectable between mbar, torr and pascal.

MRV 100 has two mechanical power relays for controlling external process equipment such as solenoid valves(sold separately). Power relay contacts - 230V, 4A, independently adjustable. With use of solenoid valve, the vacuum pressure may be controlled from 10¹³ to 10⁻³ mbar(760 to 10⁻³ torr).

MRV comes with 0-10V recorder output, data logger, USB interface and PC software kit. Electrical requirements ar 110-240V, 50/60Hz with Schuko, UK and US plug leads. Dimensions LxWxH: 3.6x4.73.6 in.(9x12x9 cm).

Model	Description	Vacuum Connection on Sensor	CAT. No.
MRV 100	Multi-range gauge/controller	---	600081

Model	Description	Vacuum Connection on Sensor	CAT. No.
CAP 101	Capacitive, 1000-1 mbar(785-1 torr)	DN 16 KF (NW16)	620088
CAP 121	Capacitive, 200-10 ⁻¹ mbar(150 - 10 ⁻¹ torr)	DN 16 KF (NW16)	620089
PIZA 111	Piezo/Pirani, 1050-10 ⁻³ mbar(785 - 10 ⁻³ torr)	DN 16 KF (NW16)	620002-02 ¹
PIZA 111 cr	Piezo/Pirani, 1050-10 ⁻³ mbar(785 - 10 ⁻³ torr)	DN 16 KF (NW16)	620002-04 ¹
PEN 101	Cold Cathode	DN 25 KF (NW25)	620090
4-Sensor Switch Box	Connection for up to 4 CAP or PIZA sensors or 2 PEN sensors at one time		600081-01

Note: 1. Connection cable CAT. No. 620091 purchased separately.

Vacuum Control Packages Atmosphere to 10⁻³ Torr



*Pump not included

- Easy to assemble kit to control vacuum pressure

The vacuum control packages are cost-effective solution for controlling vacuum pressure to 10⁻³ torr (0.001 mbar). Easy to adapt to two-stage rotary vane pumps on the inlet flange. Package includes MRV 100, vacuum sensor, T-connection, solenoid valve, hinge clamp, and centering ring. Pump not included.

Use with Pump Model	Vacuum Connection	CAT. No.
CRVpro 4, 6, 8, 1400, 1405, 1402	DN 16 KF (NW16)	330053
CRVpro 16, 24, 1376	DN 25 KF (NW25)	330054

Vacuum Controller, Table Top 825 to 1 Torr



- Controls vacuum level, venting and cooling water
- Two-point vacuum control via in-line PTFE solenoid valve
- Chemically resistant ceramic diaphragm sensor

Digitally displayed user-friendly operating instructions. Controls vacuum from 1100 to 1 mbar (825 to 1 torr). Turn and press jog wheel for menu selection. Illuminated display to show graphically vacuum level vs time. Multiple language options (English, German, Spanish, French and Russian). May operate from PC with RS 232 port (requires control software, CAT. no. 620037). Store up to 3 vacuum pressure vs time ramps. Vacuum pressure units of mbar, torr, psi and hPa. Connect pump and apparatus using 3/8 in. ID tubing (DN 8). Electrical requirement 90-260V, 50/60Hz and includes Schuko, UK and US plug. Dimensions LxWxH in.: 7.6x5.5x4.1 in. (20x14x11 cm).

Model	Sensor	Controller CAT. No.	Spare sensor
VCB 521 cv	Internal	600053	---
VCB 521 es	External	600066	620052-04

Digital Vacuum Regulator 760 to 2 Torr



- Controls vacuum level
- Two-point vacuum control via in-line PTFE solenoid valve
- Internal chemically resistant piezoelectric sensor

A membrane keypad and intuitive menus enable easy vacuum control via process time and vacuum pressure set points. Controls vacuum from 760 to 2 torr (1000 to 2 mbar). User designates 1 or 2 point vacuum level set points to control vacuum levels for a designated timed runs for up to five programs. Controller may be placed on bench surface or mounted on a hood rack with the provided thumbscrew fitting. Vacuum pressure units of torr, mbar, and pascal. Connect pump and apparatus using 1/4 ID tubing (DN 7). Dimensions LxWxH in.: 7.3x5.2x5.6 in. (19x13x14 cm). Weight 2 lbs (0.9 kg). Shipping dimensions LxWxH: 12x9x12 in. (19x13x14 cm). Shipping wt. 6 lbs (2.7 kg).

Model	Electrical Requirement	CAT. No.
1640	115/230V, 50/60Hz	1640A-01

Piza 101 Vacuum Gauge 785 to 1 Torr



- External chemically resistant ceramic diaphragm sensor
- Handheld vacuum meter

External vacuum sensor may be connected via KF 16 (NW16) flange to pump or apparatus using 3/8 in. ID tubing (DN 8). LCD read-out. Operates on standard 9V battery or with AC/DC adapter. Comes with sensor, cable and AC/DC adapter plus 9V battery. Includes Schuko, UK and US plug adapter. Dimensions LxWxD 4.9x3.1x1.4 in. (12x8x4 cm).

Model	Range mbar(torr)	Gauge CAT. No.	Spare Sensor CAT. No.
PIZA 101	1050-1(785-1)	600071	620001-01

Torr Range Vacuum Gauge 760 to 1 Torr



1520B-01

Kit 1520K-10

- Internal piezoelectric reads results to a large LCD display
- Available as stand alone unit or in a kit CAT No. 1520K-10
- Mercury free

Take fast, easy vacuum measurements from 1 to 760 torr (1013 mbar) at multiple locations with this portable vacuum gauge. Use standard 3/8" ID vacuum hosing to connect to vacuum source. Operates on standard 9V battery or using AC adapter. Meter dimensions: 3-5/8"Wx1-1/4"Dx5-3/4"H. Available as standalone unit or in convenient carrying case kit with frame case/stand, battery, AC adapter, and vacuum hosing length. Stands upright using optional protective frame case only provided in kit CAT No. 1520K-10

Model	Description	CAT No.
1520 Gauge only	Standalone unit	1520B-01
1520 Gauge in kit	Carrying case kit includes gauge, frame case/stand, battery, AC adapter, and vacuum hosing length	1520K-10

Diagnostic Thermocouple Vacuum Gauge 1 to 2000 Millitorr



- Display numerically and graphically vacuum pressure
- Vacuum analytics for leak, outgassing and pump-down
- Audible vacuum set point

Thermocouple vacuum gauge is used to measure vacuum level between 1 and 2000 millitorr (0.001 to 2.7 mbar). Graphical tracking used to monitor pump down of a chamber. Vacuum pressure units of millitorr, micron, in. of Hg, mm of Hg, in. of water, mbar, torr, psi, PSIA, Pa, and kPa. Gauge calibrated for direct read-out of nitrogen or air. Operates on (4) AA batteries, or user supplied external DC power. Includes folding stand, carrying case and batteries. Sensor tube connects to system via 1/8 in. male NPT. Dimensions LXWXD: 6x3.5x1.3 in.(15x9x3 cm).

Model	Description	Gauge CAT. No.	Replacement Sensor CAT. No.
1526	Gauge with frame stand , carrying case, (4) AA batteries	1526K-10	1526A

Analog Thermocouple Vacuum Gauge 0 to 5000 Millitorr



- Analog meter movement
- Sits on benchtop
- 0 to 10 VDC recorder output

Thermocouple vacuum gauge is used to measure vacuum level between 1 and 5000 millitorr. . Gauge calibrated for direct read-out of nitrogen or air. Sensor tube connects to system via 1/8 in. male NPT. Electrical requirements 11V, 60Hz, 1Ph with N. Amer plug. Dimensions LxWxH: 7x5x5.6 in (18x13x14 cm). Weight: 2 lbs. (0.9 kg).

Description	Gauge Cat. No.	Replacement Sensor CAT. No.	Protective Trap
Gauge with one sensor tube and cable	1515	1515B	1515A

Pirani Vacuum Gauge 1050 to 10-3 mbar



- Combination Piezoelectric & pirani sensor
- Handheld vacuum meter

External pirani vacuum sensor may be connected via KF 16 (NW16) flange to pump or apparatus using 3/8 in. ID tubing(DN 8). LCD read-out. Operates on standard 9V battery or with AC/DC adapter. Comes with sensor, cable and AC/DC adapter plus 9V battery. Includes Schuko, UK and US plug adapter. Dimensions LXWXH: 3.1x1.4x4.9 in.(8x4x12 cm).

Model	Description	Gauge CAT. No.	Spare Sensor CAT. No.
PIZA 111	Comes with sensor, cable and AC/DC adapter plus 9 V batter	600072	620002-01

Pirani Vacuum Gauge w/ Chemically Resistant Sensor 1050 to 10-3 mbar



- Vacuum sensor gold plated for chemical resistance
- Combination Piezoelectric & pirani sensor
- Handheld vacuum meter

Chemically resistant external vacuum sensor may be connected via KF 16 (NW16) flange to pump or apparatus using 3/8 in. ID tubing(DN 8). LCD read-out. Operates on standard 9V battery or with AC/DC adapter. Comes with sensor, cable and AC/DC adapter plus 9V battery. Includes Schuko, UK and US plug adapter. Dimensions LXWXH: 3.1x1.4x4.9 in.(8x4x12 cm).

Model	Description	Gauge CAT. No.	Spare Sensor CAT. No.
	Comes with sensor, cable and AC/DC adapter plus 9 V battery	600074	620002-03
PIZA 111 cr	Comes with sensor, cable, carrying case, vacuum pump adapter kit and vacuum hose and AC/DC adapter plus 9 V battery	600074-01	620002-03