

 HPA 220

Gas analysis in the pressure range of up to 50 mbar

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Advantages at a glance:

- Provides great flexibility thanks to its 5 manually or electropneumatically operated gas inlet options for analyzing, monitoring and controlling processes up to a pressure of 50 mbar
- Easy and flexible system integration through a variety of digital and analog inputs and outputs
- Multiplex operation allows data evaluation of several mass spectrometer systems with a single PC
- Compact dimensions for flexible integration

HPA 220 system overview:

Mass spectrometer PrismaPlus
 1 – 100 amu
 1 – 200 amu
 1 – 300 amu

Gas inlet system
 1,2) Valve interface HPI 040
 3,4) Double gate valve
 5) Gas dosing valve UDV 040

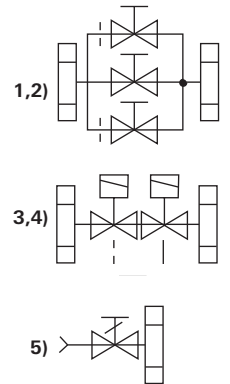


Vacuum gauge ActiveLine PKR 251
 for monitoring the pressure and for protecting the filaments

Valve control unit VCU 220
 for electropneumatic gas inlet systems

Turbopump HiPace 80 with TC 110 RS
 with 4 accessory ports + backing-pump MVP 020-3 (not shown)

19" Rack unit BRU 220
 Integrated power supply pack TPS 311. Additional options: Heating control, display and control units (DCU for turbopumps and TPG for vacuum gauges)



1,2) Valve interface HPI 040

Manually or electropneumatically operated. Consists of three valves, a bellows-sealed gate valve with a nominal diameter of DN 40 CF for residual gas analysis or leak detection up to $< 1 \cdot 10^{-4}$ mbar and two valves with exchangeable orifices in the bypass. One 0.03 mm orifice for extending the range to 8 mbar (N_2) is enclosed.

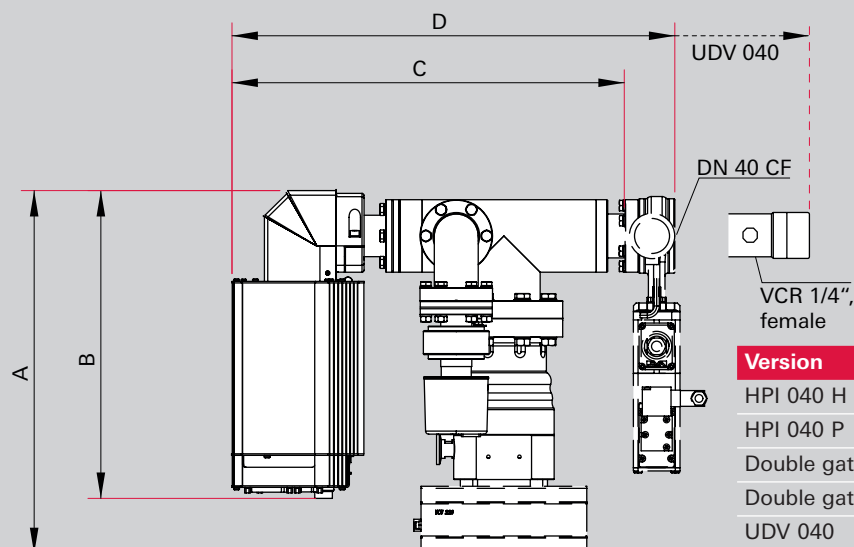
3,4) Double gate valve

Manually or electropneumatically operated. Consists of two bellows-sealed gate valves which are welded together. One gate with a nominal diameter of DN 40 CF for residual gas analysis or leak detection up to $< 1 \cdot 10^{-4}$ mbar and a second gate with an exchangeable orifice. Delivered ready fitted with a 0.1 mm orifice for the pressure range 0.1 to 1 mbar (N_2).

5) Gas dosing valve UDV 040

Manually adjustable gas dosing valve for pressure adjustment up to 50 mbar. The maximum possible and reasonable pressure range is determined particularly by the increasing gas segregation which occurs at progressively high pressures.

HPA 220 dimensions



Version	A	B	C	D
HPI 040 H	–	290	380	415
HPI 040 P	350	290	380	415
Double gate valve, manual	–	290	380	446
Double gate valve, pneumatic	350	290	380	446
UDV 040	–	290	380	479

Dimensions in mm

HPA 220 order matrix

Order number

PT M 5 a b c d

Mass range	a
1 – 100 amu	1
1 – 200 amu	2
1 – 300 amu	3
Ion source and filament	b
Open ion source, filament: yttriated iridium	1
Open ion source, filament: tungsten	2
Gas inlet system	c
HPI 040 P, bellows-sealed gate valve, DN 40 CF, electropneumatically operated, two bypass valves with 0.1 mm and 0.3 mm orifices, 0.03 mm third orifice enclosed	1
HPI 040 P, bellows-sealed gate valve, DN 40 CF, electropneumatically operated, two bypass valves with 0.1 mm and 0.3 mm orifices, 0.03 mm third orifice enclosed	2
Double gate valve, DN 40 CF, manually operated, one gate opens to release full cross-section, one gate with 0.1 mm orifice	3
Double gate valve, DN 40 CF, electropneumatically operated, one gate opens to release full cross-section, one gate with 0.1 mm orifice	4
UDV 040, gas dosing valve, manually operated, VCR 1/4"	5
Cable length and accessory option	d
3 m, without option	0
3 m, with TPG display and control unit	1
3 m, with DCU display and control unit	2
3 m, with TPG and DCU display and control units	3
10 m, without option	4
10 m, with TPG display and control unit	5
10 m, with DCU display and control unit	6
10 m, with TPG and DCU display and control units	7

Software support

The HPA 220 is supplied with Quadera® software which can be operated intuitively. A software add-in for easy valve control is available for control units with electropneumatically operated gas inlets. In addition Pfeiffer Vacuum provides customer-specific software solutions.

**Leading. Dependable.
Customer Friendly.**

Pfeiffer Vacuum stands for innovative and custom vacuum solutions worldwide, for German engineering art, competent advice and reliable service.

Ever since the invention of the turbopump, we have been setting standards in our industry and this claim to leadership will continue to drive us in the future.

**Are you looking for the
perfect vacuum solution?
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