





Sputtering process gas analysis in the pressure range of up to 10 mbar

SPM 220

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Advantages at a glance:

- SPM ion source for instantaneous process monitoring
- Excellent detection limits for H₂, O₂, H₂O and CO₂
- Minimized background influence on the measurement
- For directly analyzing, monitoring and controlling processes up to a pressure of 10⁻² mbar
- Differentially pumped version for pressures of up to 10 mbar
- Multiplex operation allows data evaluation of several mass spectrometer systems with a single PC
- Compact dimensions for flexible integration
- Easy and flexible system integration through a variety of digital and analog inputs and outputs

SPM 220 system overview:

Mass spectrometer **PrismaPlus** 1 – 100 amu 1 - 200 amu

Gas inlet system Safety valve SVV 040 Orifice flange (differentially pumped)



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

Valve control unit **VCU 220** safety valve SVV 040

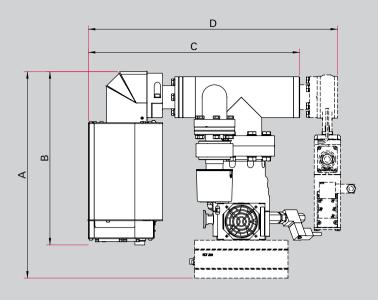
Turbopump HiPace 80 with **TC 110 RS**

4 accessory ports + backingpump 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)

SPM 220 dimensions



| Version | Α | В | С | D |
|----------------------------|-----|-----|-----|-----|
| without addition | - | 290 | 380 | _ |
| with SVV 040 safety valve | 350 | 290 | 380 | 416 |
| with a flange with orifice | _ | 290 | 380 | 395 |

Dimensions in mm

SPM 220 order matrix

Order number

PT M 5 a b c d

| Mass spectrometer | | |
|--|---|--|
| <u> </u> | а | |
| PrismaPlus, 1 – 100 amu | 1 | |
| PrismaPlus, 1 – 200 amu | 2 | |
| | | |
| Ion source and filament | b | |
| SPM ion source, filament: yttriated iridium | 3 | |
| SPM ion source, filament: tungsten | 4 | |
| | | |
| Gas inlet system | С | |
| without | 6 | |
| Safety valve SVV 040 PM, electropneumatically operated | 7 | |
| Differentially pumped DN 40 CF flange with orifice for a pressure range of up to 10 mbar | 8 | |
| | | |
| 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 SPM 220 is supplied with a user-specific operating software which can be operated intuitively. This package based on Quadera® software contains analysis routines which are specially adapted to the sputtering processes. There are also basic programs available for residual gas analysis and leak detection. In addition Pfeiffer Vacuum provides programming for customer-specific software solutions.



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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 a perfect vacuum solution? Please contact us:

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