Configurable Advanced Ion Mobility Spectrometer (AIMS) is an excellent tool for monitoring fast processes with high sensitivity requirement. In addition to detection of volatile and semi-volatile compounds, our IMS is the only one in the field which is suitable for solids analysis and surface analysis. The AIMS from MaSaTECH can easily achieve the resolution of up to 90 FWHM (full width half maximum), which makes it an instrument with highest resolving power in the field. The high performance Corona Discharge ion source outperforms the conventional ions sources used in IMS and the high ion current is responsible for the ultra-high sensitivity of the advanced ion mobility spectrometer. It is a perfect solution for those who need specific layout of all AIMS components. The main components of Configurable AIMS are Engine and Control Unit. Individual parts may be spaced at a distance of 0.5-2m.

The AIMS is designed for:

- Fast and remote monitoring of processes
- Product quality control in industry
- Volatile organic compounds monitoring
- Trace gases detection, gas detector
- Analysis of solids and surfaces
- Explosives detection
- Drug quality control
- Interface to Gas Chromatograph or to Multi Capillary Column Gas Chromatograph
- Research laboratories
- Environmental monitoring
- Indoor/Outdoor air quality monitoring
- Chemical analysis

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working pressure</td>
<td>600-1200 mbar</td>
</tr>
<tr>
<td>Working temperature</td>
<td>30-120 °C</td>
</tr>
<tr>
<td>Max. resolving power N₂/Air</td>
<td>100/90 FWHM</td>
</tr>
<tr>
<td>Sensitivity</td>
<td>ppb</td>
</tr>
<tr>
<td>Drift gas flow</td>
<td>500-1200 ml/min</td>
</tr>
<tr>
<td>Sample gas flow</td>
<td>5-500 ml/min</td>
</tr>
<tr>
<td>Drift field intensity</td>
<td>200-560 V/cm</td>
</tr>
<tr>
<td>Polarity</td>
<td>Positive or Negative</td>
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<tr>
<td>Ionization source</td>
<td>Corona Discharge</td>
</tr>
<tr>
<td>Power supply</td>
<td>250V / 24V</td>
</tr>
</tbody>
</table>
**AIMS Control Unit**

1x +/- 10kV output
1x +/- 15kV output
1xHV - SG input
2xHV - SG control output

HV Spin connector

+/- 150V output for Aperture Grid
BNC connector

Sync TTL output
BNC connector

Firmware upgrade
RS232 connector

PC control
Ethernet connector

Pump power supply
3pin connector

Amp. power supply
3pin connector

1x Drift Tube temp. control
1x Sample Inlet temp. control
1x Amplifier Fan
1x Drift Tube Fan
25pin connector

Signal input
BNC connector

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AIMS Engine

Sample inlet
1/16" connector

Signal output
BNC connector

Amplifier power supply
3pin connector

1xHV - Target electrode input
1xHV - SG output
2xHV - SG control input
HV 5pin connector

Drift gas inlet
3mm connector

Pressure control
3mm connector

Alternative gas exhaust

 HV - Corona Discharge Input
  SHV connector

Gas exhaust
6mm connector