

## 8 Annex

### 8.1 Technical data


#### Product description

Product names

| <b>Chemistry pumping unit series</b> |                          |
|--------------------------------------|--------------------------|
| PC 3001 VARIO select                 | PC 3001 VARIO select IK  |
| PC 3001 VARIO select TE              | PC 3001 VARIO select EKP |

#### Technical data

Technical data

| <b>Ambient conditions</b>   |  | (US)                       |
|---|--|----------------------------|
| Ambient temperature   | 10–40 °C   | 50–104°F                   |
| Installation height, max.   | 2000 m<br>above sea level  | 6562 ft<br>above sea level |
| Humidity  | 30–85 %, non-condensing  |                            |
| Degree of contamination   | 2  |                            |
| Impact energy   | 5 J  |                            |
| Protection class (IEC 60529)  | IP 20  |                            |
| Protection class (UL 50E)   | Type 1   |                            |
| Avoid condensate or contamination from dust, liquids and corrosive gases.   |  |                            |
| <b>Operating conditions</b>   |  | (US)                       |
| Operating temperature   | 10–40 °C   | 50–104 °F                  |
| Storage/transport temperature   | -10–60 °C  | 14–140 °F                  |
| Maximum permissible media temperature (gas) of non-explosive atmospheres:   |  |                            |
| short-term  | 80 °C  | 176 °F                     |
| Continuous operation  | 40 °C  | 113 °F                     |
| ATEX conformity   | II 3/- G Ex h IIC T3 Gc X Internal Atm. Only<br>Tech. File: VAC-EX02 |                            |
| Maximum permissible media temperature (gas) of  atmospheres: |  |                            |
| short-term  | 40 °C  | 104 °F                     |
| Continuous operation  | 40 °C  | 104 °F                     |
| <b>Connections</b>  |  |                            |
| Vacuum, inlet IN  | Hose nozzle DN 6/10  |                            |
| Gas ballast GB  | Gas ballast valve, manual  |                            |

|  |  |             |
|--|--|-------------|
| Inert gas adapter – OPTION   | Small flange GB NT KF DN 16<br>Hose nozzle GB NT DN 6/10                               |             |
| Ventilation valve (ventilation with inert gas) – OPTION            | Silicon rubber hose 3/6  |             |
| Coolant EK (+IK)   | 2x (+2x) hose nozzle DN 6/8  |             |
| Exhaust, outlet EX   | Hose nozzle DN 8/10  |             |
| Cold-device plug   | + power connection CEE, CH, CN, UK, IN, US   |             |
| Plug connector   | VACUU·BUS®   |             |
| <b>Electrical data</b>   |  |             |
| Rated voltage  | 100–230 VAC ±10 %  |             |
| Power frequency  | 50/60 Hz   |             |
| Overvoltage category   | II   |             |
| Rated current at 50 Hz   | 1.6–0.7 A  |             |
| Power, max.  | 0.16 kW  |             |
| Interface  | VACUU·BUS®   |             |
| Power cable  | 2 m  |             |
| Device fuse on motor circuit board                                 | 1x 1.1 AT (VACUU·BUS)<br>1x 7 AF   |             |
| <b>Vacuum data</b>   |  |             |
|  |  | (US)        |
| Inlet pressure / outlet pressure / differential pressure, absolute | 1.1 bar  | 825 Torr    |
| Pressure at gas connections, absolute max.                         | 1.2 bar  | 900 Torr    |
| Sensor   | integrated   | integrated  |
| Measurement principle  | Ceramic membrane (aluminum oxide), capacitive, gas-type independent, absolute pressure |             |
| Measurement accuracy   | ±1 mbar/hPa/Torr, ±1 digit (after adjustment, constant temperature)                    |             |
| Upper measurement limit  | 1080 mbar  | 810 Torr    |
| Lower measurement limit  | 0.1 mbar   | 0.1 Torr    |
| Temperature drift  | < 0.15 mbar/K  | 0.11 Torr/K |
| Max. pumping speed   | 2.0 m <sup>3</sup> /h  | 1.18 cfm    |
| End vacuum, absolute   | 2.0 mbar   | 1.5 Torr    |
| End vacuum with GB, absolute                                       | 4 mbar   | 3 Torr      |
| Number of cylinders/steps  | 4/3  |             |

| <b>Weights* and dimensions (L x W x H)</b> |                             | (US)                              |
|--|-----------------------------|-----------------------------------|
| PC 3001 VARIO select                       | 303 mm x 306 mm<br>x 400 mm | 12.05 in<br>x 11.93 in x 15.75 in |
| Weight*                                    | 8.2 kg                      | 18.08 lb                          |
| PC 3001 VARIO select TE                    | 300 mm x 341 mm<br>x 493 mm | 11.81 in x 13.43 in x<br>19.41 in |
| Weight*                                    | 8.7 kg                      | 19.18 lb                          |
| PC 3001 VARIO select IK                    | 309 mm x 312 mm<br>x 400 mm | 12.17 in x 12.28 in x<br>15.75 in |
| Weight*                                    | 8.8 kg                      | 19.4 lb                           |
| PC 3001 VARIO select EKP                   | 300 mm x 370 mm<br>x 400 mm | 11.81 in x 14.57 in x<br>15.75 in |
| Weight*                                    | 11.8 kg                     | 26.01 lb                          |
| * without cable                            |                             |                                   |

### Other specifications

|   |                     |
|---|---------------------|
| Sensor type   | VACUU·SELECT Sensor |
| Controller  | VACUU·SELECT        |
| Volume of condensate collection tanks                           | 500 ml each         |
| Sound pressure level at<br>1,500 min <sup>-1</sup> /62% (VARIO) | 42 dBA ±3           |

## 8.2 Wetted materials

Wetted materials

| <b>Component</b>        | <b>Wetted materials</b>                                   |
|-------------------------|---|
| <b>Pump</b>             |   |
| Housing cover           | PTFE  |
| Head cover              | ETFE carbon fiber reinforced                              |
| Diaphragm clamping disc | ETFE carbon fiber reinforced                              |
| Diaphragms              | PTFE  |
| Valves                  | FFKM  |
| <b>Pumping unit</b>     |   |
| Inlet                   | PPS (IK: PP)  |
| Outlet                  | PET (PC 3001 without EK:<br>PTFE carbon fiber reinforced) |
| Hoses                   | PTFE  |
| Hose fitting            | ETFE, ECTFE   |
| O-ring on separator     | Fluoroelastomer   |