

## Technical Data - Alab 5000

| Analysis of inverted regular soft drinks with PBA-SI Generation M           |                                                                                    |                                |
|-----------------------------------------------------------------------------|------------------------------------------------------------------------------------|--------------------------------|
|                                                                             | Measuring range                                                                    | Repeatability, s.d.            |
| Density                                                                     | 0–3 g/cm <sup>3</sup>                                                              | 0.000001 g/cm <sup>3</sup>     |
| Concentration sugar                                                         | 0–15 °Brix                                                                         | < 0.01 °Brix                   |
| Concentration sugar fresh                                                   | 0–15 °Brix                                                                         | 0.02 °Brix                     |
| Concentration sugar inverted                                                | 0–15 °Brix                                                                         | 0.02 °Brix                     |
| Degree of inversion                                                         | 0–100 %                                                                            | 1%                             |
| CO <sub>2</sub>                                                             | 0–6 vol. (0–12 g/L) at 30 °C (86 °F)                                               | 0.005 vol. (0.01 g/L)          |
|                                                                             | 0–10 vol. (0–20 g/L) < 15 °C (59 °F)                                               |                                |
| O <sub>2</sub>                                                              | 0–4 ppm                                                                            | 2 ppb (in the range < 200 ppb) |
| pH                                                                          | pH 0–14                                                                            | 0.02 (in the range pH 3–7)     |
| Maximum allowed volume of packages to be handled by PFD/PFD Plus            | Can: 0.5 L<br>Glass bottle: 1 L                                                    |                                |
| Sample temperature                                                          | 15–25 °C (59–77 °F)                                                                |                                |
| Sample volume per measurement                                               | 120–150 mL<br>(approx. 20 mL per additional measuring module)                      |                                |
| Compressed gas:                                                             | Class 5 from ISO 8573-1                                                            |                                |
| necessary quality of air if used as compressed gas supply                   | max. particle size: 40 µm<br>max. pressure dew point: +7 °C (44.6 °F)              |                                |
| Compressed gas:                                                             | Purity ≥ 99.999 %                                                                  |                                |
| necessary quality of nitrogen supply if Option O <sub>2</sub> is installed: | Class 5.0<br>max. particle size: 40 µm<br>max. pressure dew point: +7 °C (44.6 °F) |                                |
| Operating pressure for PBA system                                           | 6 ±0.5 bar relative (87 ±7 psi)                                                    |                                |
| Dimensions (L x W x H) of the PBA system                                    | 495 x 700 x 670 mm (19.5 x 27.6 x 26.4 in)                                         |                                |
| Voltage                                                                     | AC 100 to 240 V, 50/60 Hz                                                          |                                |
| Power consumption                                                           | 190 VA (incl. external measuring modules)                                          |                                |
| Power inlet                                                                 | according to IEC/EN 60320-1/C14, protection class I                                |                                |

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| <b>Fuses</b>                                                  | Glass tube fuses 5 x 20 mm; IEC60127-2; AC 250 V; T 5 AH                                                                                                                                                                                               |
| <b>Environmental conditions (EN 61010)</b>                    | Indoor use only                                                                                                                                                                                                                                        |
| <b>Ambient temperature</b>                                    | 15–35 °C (59–95 °F)                                                                                                                                                                                                                                    |
| <b>Air humidity</b>                                           | 10–90 % relative humidity, non-condensing                                                                                                                                                                                                              |
| <b>Pollution degree</b>                                       | 2                                                                                                                                                                                                                                                      |
| <b>Overvoltage category</b>                                   | II                                                                                                                                                                                                                                                     |
| <b>Altitude</b>                                               | max. 3000 m (9800 ft)                                                                                                                                                                                                                                  |
| <b>PBA-B Generation M Packaged Beverage Analyzer for Beer</b> |                                                                                                                                                                                                                                                        |
| <b>Output parameters</b>                                      | Alcohol [%v/v], Original extract [°Plato], Extract [%w/w]<br>Density [g/cm <sup>3</sup> ], CO <sub>2</sub> [g/L], Color [EBC or °ASBC] (optional)<br>pH value (optional), Turbidity (optional), O <sub>2</sub> (optional)<br>and many other parameters |
| <b>Repeatability s.d.</b>                                     |                                                                                                                                                                                                                                                        |
| <b>Alcohol</b>                                                | 0.01 %v/v                                                                                                                                                                                                                                              |
| <b>Original extract</b>                                       | 0.03 °Plato                                                                                                                                                                                                                                            |
| <b>Extract</b>                                                | 0.01 %w/w                                                                                                                                                                                                                                              |
| <b>Density</b>                                                | 0.00001 g/cm <sup>3</sup> (DMA™ 4500 M)<br>0.000001 g/cm <sup>3</sup> (DMA™ 5000 M)                                                                                                                                                                    |
| <b>CO<sub>2</sub></b>                                         | 0.01 g/L (0.005 Vol.)                                                                                                                                                                                                                                  |
| <b>O<sub>2</sub> (optional)</b>                               | ± 2 ppb (in the range < 200 ppb)                                                                                                                                                                                                                       |
| <b>Color (optional)</b>                                       | 0.1 EBC                                                                                                                                                                                                                                                |
| <b>pH value (optional)</b>                                    | 0.02                                                                                                                                                                                                                                                   |
| <b>Turbidity (optional)</b>                                   | 0.02 EBC                                                                                                                                                                                                                                               |
| <b>Additional information</b>                                 |                                                                                                                                                                                                                                                        |
| <b>Sample volume per measurement</b>                          | 120 to 150 mL                                                                                                                                                                                                                                          |
| <b>Typical measuring time</b>                                 | 3 to 4 minutes                                                                                                                                                                                                                                         |
| <b>Compressed air supply</b>                                  | 6 ± 0.5 bar (87 ± 7 psi)                                                                                                                                                                                                                               |