



## SE01 Isocratic analytical system with detector OPAL

P/N SE010000

**High effective system for routine analysis** by constant flow rate of mobile phase (0,01 - 10 ml/min) at one wavelength given used **interference filter**. Sample is injected using manual injector, **controlling and record of analysis** is done by Chromatographic software **ECOMAC**.

### System contains:

| Description                           | P/N         |
|---------------------------------------|-------------|
| ALPHA 10 Isocratic Pump               | PE000000    |
| OPAL UV-VIS Fixed Wavelength          | 6500000     |
| Interference filter                   | of choice   |
| Analytical Injection Loop Valve D     | 54300000    |
| External sample loop 20 ul SS         | 54293000    |
| Column 250x4.6mm Kromasil 100-7um C18 | CO-C25A7    |
| Box for Bottles MF1                   | ZA000000    |
| Mobil phase reservoir LCT 02, 1L      | 56940000    |
| SS Mobile Phase Filter 2um, 1/8"      | JR-367008-2 |
| 705NR 50ul Hamilton Syringe           | 80565       |
| ECOMAC Chromatographic software       | AF000000    |
| 2x Crossed serial cable 9pin RS 232   | EKAB-024    |
| 2x Cable with converter RS232 - USB   | EKAB-025    |
| Panda 30 Start + Mark - USB           | SA020000    |
| Accessories for analytical system     | SE010100    |

Computer is not include but could be delivered separately.

**ALPHA 10 PUMP** with flow rate **0.01 – 10 ml/min** and limit of pressure **40 MPa** is this pump suited for analytical applications in liquid chromatography. It is designed with **main and auxiliary pump heads connected in series** with piston diameter of 1/8".

**Quite new concept** of electronic controlling, pump drive, pistons suspensions, shape of cams, pressure transducer and check valves expand its functions.

**Intuitive operating using simple keypad allows easy chose functions as follow:**

- **Flow rate**
- **Maximal flow rate- PURGE ( for priming and washing)**
- **Low pressure limit**
- **High pressure limit**
- **Pulsation compensation on-off**
- **Pressure unit (PSI, MPa or bar)**
- **Control mode ( by keypad, RS232 or using voltage)**
- **Display brightness**

Two LED displays allows to watch (also from a distance) adjusted flow rate and operating pressure. By pump function choosing, give you this displays enough of information for adjusting.

**There is possibility to use this pump by high pressure gradient mode**, where are two, tree or four unit controlled from PC using RS232 or voltage.

By work with buffered solvents is possible to use pistons back washing.

**UV-VIS FIXED WAVELENGTH DETECTOR** is with an **interference filter**. By means of this filter can be this unit adjusted at one fixed wavelength in range of **200 – 800 nm**. Noise level at 254 nm is  $\pm 0.5 \times 10^{-5}$  AU with an empty cell. (Filter is not include price)

The unit may be used for routine **analytical** chromatography as well as for **preparative** chromatography, according to the selected cell.

The unit is easy to operate, **reference and sample** signals are available for detector diagnostics as well as information on **lamp operating hours**.

**Output signal** is available in both **digital and analogue form** on the output connector. **It is possible to control the unit using the keypad or an RS232 interface** The detector is equipped with a high standard **deuterium lamp** in a special socket that enables **easy changing**. **By wavelengths up to 600 nm has to be used tungsten lamp instead deuterium lamp**.

**SOFTWARE ECOMAC** is designed with maximal effort to **do easy operation** of chromatographic systems ECOM. It is suited for **units controlling and data collecting**. Equipments are connected to the PC using **RS232, or USB** (by means of RS232/USB converter). **Software detects automatically almost of all units**, so there is no need complicated communication installation.

#### Program most important features:

- **Easy installation**
- **Connecting using USB or RS232**
- **No need A/D converter**
- **Possibility to start up to 8 stations at the same time**
- **Possibility of external start and external mark**
- **Secured access**
- **Units controlling and data collecting from one place**
- **Data export in various formats**

**Note:** Software **ECOMAC** allows displaying, storage and export of data, but does not allow peaks shape calculation, calibration etc. If is need to use such functions, is it necessary add a SW to the system which allow it (for example Clarity). It is possible simple export data to any SW so there is not necessary buy A/D converter:

**Text formats:** native text format, two column text format and CSW Clarity text format

**Binary formats:** native binary CH-format, CSW (1.7) Raw format and Matlab MAT format.