



designed for scientists



## VC 10 pro

/// Data Sheet

Valve-controlled, universal vacuum controller for controlled evacuation of air (gas) from laboratory equipment, as well as for classical separation, filtration or drying tasks in the laboratory. The controller is ready-to-use in numerous applications and can be easily installed.

VC 10 pro can be used with all standard vacuum sources. The use of multiple controllers with one vacuum source is possible.

Features:



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- On/off regulation of multiple vacuum sources
- Automatic boiling point detection
- Integrated solvent library: Helps to set the correct parameters for example in evaporation processes with rotary evaporators
- Graph function
- Connection for external temperature sensor: temperature value is shown on display
- Valve cleaning function for long service life
- Integrated ventilation valve for simple pressure equalization and aeration with inert gas after process completion
- VENT short key button allows pressure equalization during a running process
- Program function: up to ten user-defined programs can be saved, with up to ten pressure/time sequences
- USB / RS232 interfaces for connection with the laboratory software labworldsoft®
- Electronic control system for improved process efficiency and higher solvent recovery rate
- High energy efficiency thanks to device-to-device communication (vacuum controller to recirculating chiller)

For additional safety for users and environment, the use of the VSE 1 vacuum safety emission condenser is recommended, which prevents solvents from being released into the room air. The VSE 1 is available as an accessory.

## Technical Data

|                                            |                                                 |
|--------------------------------------------|-------------------------------------------------|
| Connection diameter suction side [mm]      | 8                                               |
| Connection diameter pressure side [mm]     | 8                                               |
| Connection diameter venting side [mm]      | 8                                               |
| Input pressure [mbar]                      | 1 - 1050                                        |
| Boiling point detection                    | yes                                             |
| Solvent library                            | yes                                             |
| Two-point control                          | yes                                             |
| Analog speed vacuum control                | yes                                             |
| Display                                    | TFT                                             |
| Pressure unit / scale                      | mbar, hPa, mmHg, Torr                           |
| Vacuum sensor                              | yes                                             |
| Vacuum sensor type                         | ceramic Al <sub>2</sub> O <sub>3</sub>          |
| Pressure max. for pressure sensor [bar]    | 1.6                                             |
| Measurement range (absolute) [mbar]        | 1 - 1100                                        |
| Control range [mbar]                       | 1 - 1100                                        |
| Resolution pressure [mbar]                 | 1                                               |
| Measurement uncertainty [mbar]             | 1                                               |
| Medium temperature (gas) [°C]              | 5 - 40                                          |
| Vacuum valve                               | yes                                             |
| Venting valve                              | yes                                             |
| Connection for ext. temperature sensor     | PT1000                                          |
| Temperature unit                           | °C / °F                                         |
| Temperature measuring range [°C]           | -10 - 200                                       |
| Temperature measurement resolution [K]     | 1                                               |
| Accuracy of temperature measurement [K]    | ±1                                              |
| Timer                                      | yes                                             |
| Time setting min. [s]                      | 1                                               |
| Time setting max. [min]                    | 6000                                            |
| Vacuum speed control interface             | VACSTAR                                         |
| Material in contact with medium            | Al <sub>2</sub> O <sub>3</sub> , PTFE, FPM, PPS |
| Housing material                           | PBT                                             |
| Fastening                                  | stand / clamp                                   |
| Fastening diameter [mm]                    | 16                                              |
| Mode automatic                             | yes                                             |
| Mode manual                                | yes                                             |
| Mode pump %                                | yes                                             |
| Mode program                               | yes                                             |
| Graph function                             | yes                                             |
| Chiller control                            | yes                                             |
| Vacuum leakage test                        | yes                                             |
| Dimensions (W x H x D) [mm]                | 95 x 150 x 110                                  |
| Weight [kg]                                | 1.5                                             |
| Permissible ambient temperature [°C]       | 5 - 40                                          |
| Permissible relative humidity [%]          | 80                                              |
| Protection class according to DIN EN 60529 | IP 20                                           |
| RS 232 interface                           | yes                                             |
| USB interface                              | Micro-USB                                       |
| Voltage [V]                                | 100 - 240                                       |



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|                          |       |
|--------------------------|-------|
| Frequency [Hz]           | 50/60 |
| Power input [W]          | 24    |
| Power input standby [W]  | 2     |
| DC Voltage [V=]          | 24    |
| Current consumption [mA] | 1000  |