

QUATROL.50S - SUMMARY

- Maintenance-free Inline / Online measuring technology for all application in the softdrink industry
- Very easy operating via touch screen
- Comfortable product memory, freely configurable products
- Fully automatic process-survey, alarm setting and switch-off possibilities
- Various data interfaces for external data transfer
- Automatic quality control, DIN/ISO 9000ff conformity
- Compact and robust design of the sensors
- Optional connection of O₂-, conductivity-, pH-, turbidity- and colour-sensors
- Cleaning with the cleaning of the process line (CIP)

QUATROL.50S is an open and modular system. It allows the installation of additional sensors, the adaptation of the software, and the connection to external PC or PLC systems. QUATROL grows with customers demand and is adaptable to each plant structure.

QUATROL.50S represents a complete automatic quality control system according to IFS/DIN/ISO 9000ff.

Technical data

Power supply: 230 VAC 50 Hz resp. 120 VAC 60 Hz / 3 Amp.
Measuring ranges: BRIX: 0...30 °BRIX
CO₂: 0...10 Vol./0...20 g/l

Temperature: 0...30 °C
CIP up to 130 °C

Accuracies: °BRIX: +/- 0,01 °BRIX
%DIET: +/- 1 %
CO₂: +/- 0,02 Vol.

Drift-free

Temperature compensation: 20/20 °C

Signal output: RS 232 / 485

4...20 mA per value

Process connections: Varivent Inline, or 3/8" bypass

ND10 in the mainpipe

Operating system: WIN XP Embedded

User software: QUATROL.50S by ACM

ACM

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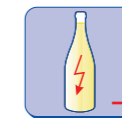
Softdrinkmonitorsystem QUATROL.50S



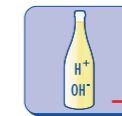
°BRIX/%DIET



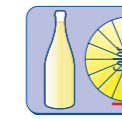
CO₂



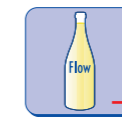
Conductivity



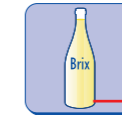
pH



Colour, haze



Flow



Syrup °BRIX



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Softdrinkmonitorsystem QUATROL.50S

A continuous and efficient quality control is important for the beverage industry. Especially during the filling process the individual softdrink parameters need to be monitored quickly, accurately and reliably. The flexible, modular

and future-save system QUATROL.50S monitors the specific quality parameters of the beverage. What makes this system outstanding is the easy operating and its high accuracy.

Laserrefractometer LR.10

Caused by the varying quantity of dissolved matter in the medium, a laser beam in combination with a specially coated prism is deflected. A CCD camera detects accurately the deflection, the measuring signal is transferred into °BRIX. A fast temperature sensor reads the temperature of the sample, the °BRIX value is compensated to 20 °C reference temperature. The °BRIX measurement is CO₂ independent.



CO₂-measuring unit CO.20

The CO₂-measuring unit serves the InLine/Online CO₂ measurement in the brewery and beverage industry. The measuring principle is based on the ACM continuous partial pressure method; membrane system. The space after a CO₂-permeable silicone membrane, fixed in the front of the measuring chamber, is filled by diffusion CO₂ until the chamber pressure reaches the partial pressure of the dissolved CO₂ in the liquid. On de- or increasing CO₂ concentration in the liquid, the measuring chamber pressure corresponds. By using up to date microprocessor electronics, the current CO₂ value is continuously calculated from the determined pressure and temperature values and shown as the actual value in Vol.

Conductivity, pH, Colour, others...

By the help of other common sensorics connected to QUATROL further important process parameters can be monitored.



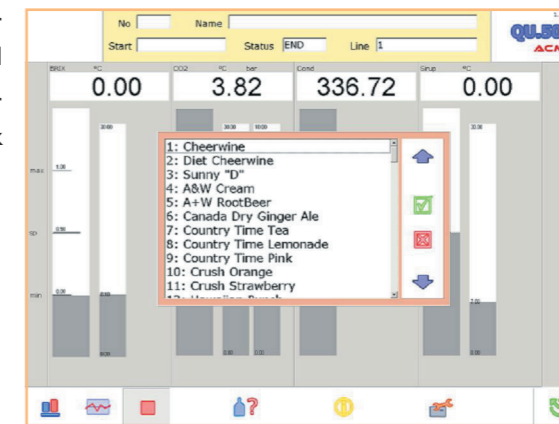
Depending on connected sensorics and production control demand QUATROL.50B determines the following softdrink parameters:

- °BRIX/%DIET value
- CO₂-value
- Conductivity
- pH
- Colour
- Beverage temperature
- CO₂ impregnation pressure etc.

For easy verifying to laboratory results, all measuring values are compensated to 20 °C. The system owns a big versatile product storage, media settings for up to 200 products is possible. When a product is selected by its individual number or name, the production control process runs fully automatically. If measuring values exceed given limits, an alarm is indicated.

The connection of audio-visual alarm devices and a filler switch-off is always possible.

The start-up and finishing process are monitored without problems in the manual mode. All measuring signals are stored on systems HDD. An easy connectable protocol printer brings transparency in the filling process.



For easy to handle system calibration, adjustment to laboratory values can be done during production. Simple operation is guaranteed by modern touch screen display technology. Operation errors are excluded.

System handling:
Start: Button „START“, Selection of the product number; Button „ENTER“. The system starts in the Manual-mode, no alarms are set.

Automatic: Button „AUTO“. After startup the system is switched to surveillance mode, On case of exceeding readings alarms are given.

Manual: Button „MANUAL“. Manual operation. Avoids unnecessary alarms in case of errors.

Stop: Whilst the filling process stops, the surveillance mode is halted, no alarms are caused by production stop.

Production finish: Button „FINISH“. End of surveillance.

All these events as well as additional data can be recorded by in- or external protocol printers.

The QUATROL.50S system provides all up to date data interfaces, to be bind in to existing PC networks or PLC systems.

SOFT