

# FRINGS NEWS



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A NEW SOURCE OF INFORMATION

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## ALKOSENS - ACETOMAT - ACETOWIN - ACETOCONTROL

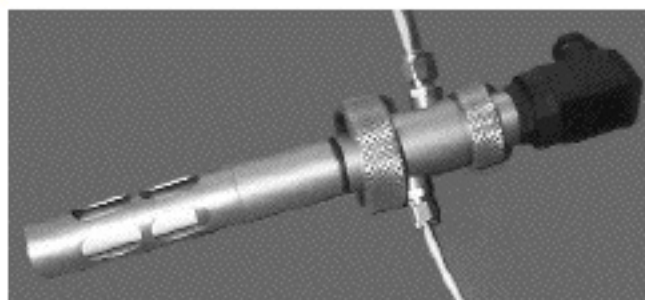
Latest developments in Frings control technology for all processes for vinegar production in Acetators and/or fermenters.

Do you remember? Already many years ago Frings supplied process control systems: the Alkograph, level switches, and a program switch - automating the charging and discharging steps in an Acetator as a function of the set residual alcohol. Today, electronic systems, sensors, and data processing units are the core of each process control system.

Frings was the first to apply electronic sensors and programmable logic control (PLC) systems to vinegar fermentation. In the past years these systems have been developed into variable process control units which meet the exacting demands of our electronic age. In the following, the names we have given the components, the control possibilities, and the documentation they allow are introduced and summarized:

### ALKOSENS

The probe for the on-line determination of the actual alcohol concentration of the fermenting liquid is needed for all processes that are to be run automatically, since the alcohol concentration is the essential control parameter. In addition to the probe you need an evaluation unit for the conversion, display and saving of the actual data for alcohol concentration, the



Alkosens

### ACETOMAT

The control processor with monitor can do more: If the Acetator or (generally) the fermenter is equipped with temperature and filling level probes suitable for the Acetomat, a software can be applied to the Acetomat CC which controls the batch process automatically. Various parameters can be visualized on the monitor, including the fermentation speed or rate of conversion from alcohol to acetic acid.



### ACETOWIN

This is a software which, together with the Acetomat to which the term 'Data' is then added, permits the uninterrupted analysis of all those parameters which are relevant for submerged vinegar fermentation. In addition, it makes them available to a connected PC in the form of tables. Another function is the calibration of the Alkosens probe direct from the PC. The highest level of process control is represented by the system

### ACETOCONTROL

by which not only batch processes, but also the single and the dual stage high strength processes can be controlled automatically. A visualization software, the PLC with touch panel, and the connection with a personal computer permit direct communication with the Frings service computer for a quick diagnosis of fermentation problems.