

# In-line Alcohol/ Extract Meter



## In-line Alcohol/Extract Meter

### General product information

Understanding how to build a business, that can grow sustainably and make a contribution to society, beverage industries are challenged reducing product losses and optimizing the beverage output volume.

The proven infrared spectroscopy that enables selectively measurement of Alcohol and Extract, is now made available in the new In-line Alcohol/Extract Meter. This strongly reduces the necessity of product sampling and sample analysis, increasing the efficiency of a production plant by less down times and products that are produced one time right within narrow specifications.

The In-line Alcohol/Extract meter uses infrared light (IR) and its Attenuated Total Reflectance (ATR). An infrared beam is directed under an angle onto an optical crystal made from sapphire, that is installed at the probe's end and is in contact with the product. The absorption of the infrared light that enters the liquid surface is measured and processed into an alcohol and extract concentration.

The In-line Alcohol/Extract Meter can be installed anywhere in the process where the determination of alcohol and or extract is critical to the quality of the beverage.

The Alcohol/Extract Probe is constructed in accordance with the CE hygienic directive and EHEDG hygienic design recommendations. It can easily be mounted in a process connection.

The user-friendly control unit can be supplied in either field or panel mounted versions.



**ExtrAl-i**

# In-line Alcohol/ Extract Meter



Alcohol/Extract probe

## Benefits

- Cost saving
  - efficient and economical operation of beverage production plant
  - no maintenance, easy cleaning by CIP
  - Two in one measurements for different product types
- Accurate process control
  - management date storage
- No by-pass measurement

## Application

- in-line, at critical locations in the production line where the determination of Alcohol and/or Extract of beverages is required, typically after filtration, carbonation and blending/mixing, but also in front of a filler.

## Technical Data

### Control Unit

Power supply	85-264 V / 50-60 Hz (optional 24 VDC)
Dimensions	200 x 200 x 80 (LxWxH mm)
Mounting	wall mounting/panel mounting/pipe mounting

### Alcohol/Extract probe

Connection	Varivent (>DN 40)
Dimensions	200 x 90 (LxD mm)

### Measuring range

Alcohol	0.00-10.00 % w/w
Extract	0.00-10.00 ° Plato
Temperature	-10 – 40 °C
Measuring units	
Alcohol	% w/w, % v/v,
Extract	° Plato, Brix
Temperature	°C, °F

### Repeatability

Alcohol	± 0.025 % w/w
Extract	± 0.025 ° Plato
Temperature	± 0.1 °C

Response time (T99)	: <60 sec.
Memory capacity	: up to 500 measurements with trending ability
Protection class	: IP 67

## Scope of Supply

- Control unit
- Control unit wall mounting set
- Alcohol/Extract probe
- Mains cable\*
- Probe communication cable (max 15 m)
- I/O cable for analogue output\*
- Software (CD + RS cable)
- Instruction manual

## Options

- Control unit pipe/probe mounting set (DN 40 - DN 125)
- Control unit with Profibus DP
- In-line housing with Varivent connection, inspection glasses and clamps for turbidity probe (pipe dimension to be specified at time of enquiry)

**Haffmans BV reserves the right to make changes in the technical specifications at any time.**



**Haffmans BV**

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