HAFFMANS CPT
CO₂ PURITY TESTER

GENERAL PRODUCT INFORMATION

In the beer and beverage industries, the quality of carbon dioxide (CO₂) is a determining factor in the product's quality and taste. A low oxygen (O₂) content is crucial to avoid oxygen pick-up in beverages. The CO₂ collected from fermentation is liquefied in order to reduce the space needed for storage and to purify the CO₂ from non-condensable gases – O₂ and nitrogen (N₂).

The CO₂ Purity Tester, type CPT, is used for routine controls of the air content of commercial CO₂ gas and CO₂ gas from fermentation. The principle is based on CO₂ absorption by caustic.

The measuring burette of the CPT is properly flushed with CO₂ gas. The CO₂ sample is separated in the measuring burette and the connection is made with the caustic burette. The CO₂ is completely absorbed by the caustic and the remaining gas volume is read on the scale of the measuring burette after turning the instrument on its backside.

Two executions are available:

- Type CPT 99-100, measuring burette scale from 99 - 100% v/v, for measuring the end purity of commercial CO₂ gas or CO₂ gas from fermentation after purification
- Type CPT 50-100, measuring burette scale from 50 - 100% v/v, for measuring the intake purity of CO₂ gas from fermentation

BENEFITS

- Perfect product control
- Cost saving
  - less labor intensive – multiple measurements without the need to remove caustic

APPLICATIONS

- Quality Control
  - of gas distribution systems
  - of commercial gas
- of incoming CO₂ gas from fermentation
- of CO₂ recovered and purified from fermentation
- in front of the carbonator to monitor the gas quality dosed

- Optimizing CO₂ Recovery Plants
  - behind the activated carbon filter/dryer
  - in the purge from the CO₂ liquefier to control the blow-off quantity automatically, preventing CO₂ loss as well as high concentrations of O₂ from dissolving CO₂
- behind the CO₂ evaporator to monitor O₂ in the CO₂ distribution system

FOOD & BEVERAGE

CO₂ PURITY TESTER, TYPE CPT
## TECHNICAL DATA

### CPT 99 - 100%

**Measuring range**
99.0 - 100.0% v/v CO₂

**Graduated scale**
99 - 100% 0.02% v/v foreign gas

**Accuracy**
99 - 100% 0.01%

### CPT 50 - 100%

**Measuring range**
50.0 - 100.0% v/v CO₂

**Graduated scale**
94 - 99.8% 0.1% v/v foreign gas
55 - 85% 2.0% v/v foreign gas

**Accuracy**
94 - 99.8% 0.05%
55 - 85% 1.0%

**Volume**
170 ml caustic solution

**Caustic concentration**
- 30% g/l NaOH with approx. 1% ethanol
- 30% g/l KOH with approx. 1% ethanol

**Dimensions**
430 x 110 x 330 [L x W x H mm]

**Weight**
Ca. 1 kg

## SCOPE OF SUPPLY

- CO₂ Purity Tester*
  - Type CPT 99-100 or
  - Type CPT 50-100
- Instruction manual

* When ordering, please state which instrument you require.

## OPTIONS

- Certificate of measurement