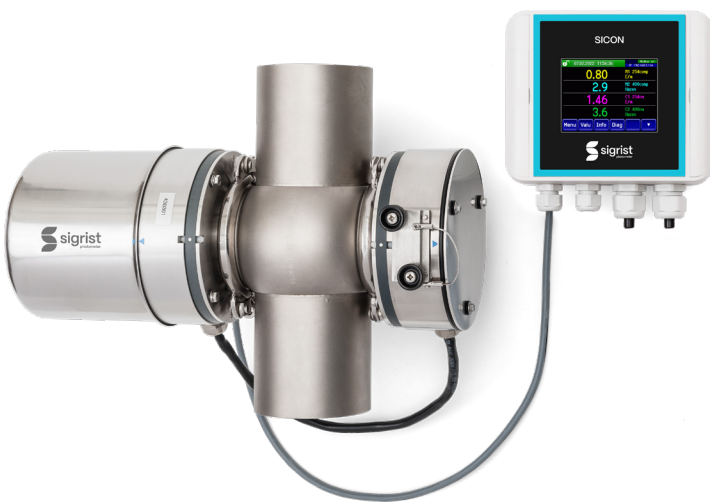


Color measurement of beer at the blending unit

In a modern brewery, it is of great importance that the beer achieves a high quality and that this is then continuously ensured. Color measurement on the blending system is a crucial process step.



The ColorPlus 2 in-line

Although beer color does not have the same significance as turbidity for quality identification, certain procedures in beer production make it necessary to measure color during the process.

Typical Application

There are two different processes in a brewery in a brewery:

- 1) Breweries that produce so-called „high gravity“ beers. The advantage is an increase in output without conversion measures and less thermal and especially cooling energy per hectolitre of beer sold.
- 2) Breweries that do not do this because they do not have a capacity bottleneck or are not allowed to do so under beer tax law (e.g. Germany).

Breweries with „High Gravity“ Brewing

Breweries use so-called blending systems for this, which add deaerated water, CO₂ and roasted malt beer or sugar colour to the beer.

Breweries without „High Gravity“ Brewing

The blending system looks similar, but its main purpose is to comply with the original gravity limits due to beer tax legislation. In addition, CO₂ is added to compensate for fluctuations from the storage cellar. Color dosing is not always ne-



cessary, but is used either to achieve uniform color values in the sense of a fine correction or to dose a lot of roasted malt beer to create beer types that were not created in the brewhouse (e.g. black beer from pilsner).

Practical Measuring Tasks (Examples)



Example of an integrated Blending Unit with ColorPlus (circle)

Savings/Return Calculations

Nothing can be saved in the stricter sense. You can minimize losses of roasted malt beer and, above all, customers can be guaranteed consistent product quality.

Products

IGRIST Product and configuration for this application:

- Beer instrument 430nm: ColorPlus 2 or Beer instrument 430/700nm: ColorPlus 2 (if turbidities > 2 EBC are to be expected)
- Suitable OPL bits (depending on the desired measuring range)
- SICON control unit
- Suitable Varivent® housing

Parameter settings

- Calibration in EBC color (factory setting)
- Set measuring range for 4–20 mA signal output on the SiCon

Advantages of the Sigrist ColorPlus

- LED light source with extremely stable measured value
- Easy to check with control glass
- No purge air necessary
- Self-monitoring of the device status
- Extremely low maintenance costs as very maintenance-friendly