

Reduce product loss with the modular, front flush turbidity sensor ITM-51

## Relative turbidity meter ITM-51

### Benefits in the production process

ITM-51 enables active automated phase separation instead of passive time or volume control. That saves time and cost in the transition of milk / water resp. of beer / yeast, on the base of inline analysis of the turbidity and active switching of the process.

- Minimization of resource loss and thus loss of value
- The filling of tanks with wrong medium is avoided
- Less cost for waste water treatment
- Less need for additional laboratory analyses
- Best possible concentration and constantly high quality of the product such as milk / cream resp. beer / wort
- Efficient separator control in breweries for uniform quality of filtered beer

### Benefits in the CIP-SIP-Process

Active automated and temperature-independent phase separation in the return of product / acid / caustic / water

- Reliable control of the degree of pollution of the agents
- Optimal multiple use of the cleaning agents
- Cost minimizing due to less waste disposal
- Reduction of the cleaning process time and thus also of the water consumption: active switching after reaching the desired degree of purity by inline turbidity analysis, and not after passive, fixed timing

### Practical experience / Applications

- Reduction of product loss from 5% to 3%, and 15% cost reduction due to less waste water treatment
- Less laboratory analyses necessary, thus less personnel / time requirement and faster reaction to deviations
- 3.000 l less water consumption in each CIP process
- ITM-51 prevents reliably the contamination of a glycol cooler with milk products, a fact which before repeatedly disturbed the cooling process and caused a complete cleaning
- 80% more consistency in the quality of the end product due to more precise separation of cream, mild and low-fat milk
- Constant turbidity level for Craft Beer without filtering thanks to precise separator control in a brewery



### Technical specification at a glance

- Compact front flush turbidity sensor with backscatter principle, in modular set-up
- Flex-Hybrid-Technology with digital + analog interface (IO-Link + 4...20 mA)
- Increased application range (Process temperature up to 130°C, pressure -1...20 bar)
- Independent to reflections at small diameters or electro-polished surfaces
- No color dependency (wave length 860 nm)
- High reproducibility:  $\leq 1\%$  of full scale
- Selectable measuring range (%TU, NTU, EBC)
- Extended sensitivity: 200...300.000 NTU equivalent
- Remote version with Smart Replace Design: Easy replacement of each component just by connecting