SITA Process Solutions



Monitoring Bath Contamination Inline





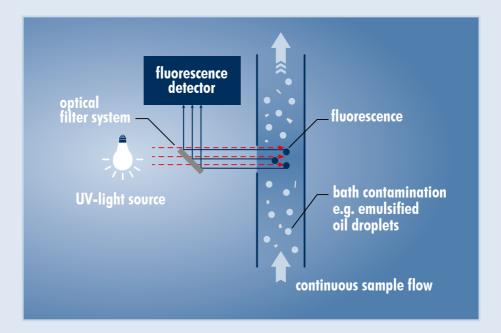
SITA CLEAN LINE BC

High-performance and Robust

- Objective evaluation of bath contamination — Inline
- Plant component for continuous monitoring of oils and greases in cleaning and rinsing baths
- Fully-automated system including self-monitoring
- Control of bath care measures



Measuring Principle



Typical contamination of industrial cleaning baths such as oils and greases can be excited with ultraviolet light to emit fluorescent radiation. The measured intensity of the fluorescence radiation increases with the oil and grease concentration. An integrated UV-light source stimulates the excitation of the fluorescence. A photo-detector measures the intensity of the resulting fluorescence radiation.

Stable Assurance of Cleanliness

Application

Monitoring the bath contamination and process oriented control of bath care measures.



- Assurance of parts cleanliness for follow-up processes such as coating, bonding, welding and hardening
- Economic process management through optimization of bath lifetime



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- ✓ Controlled cleaning
- ✓ Process-oriented control of bath care
- ✓ Process documentation
- Economic efficiency through process optimization

SITA Advanced Cleaning Control

SITA CLEAN LINE BC

Technical Data

Measuring module

Measured value Fluorescence intensity
Excitation* 365 nm, max. 150 mW

Detector* 460 nm Operating voltage 24 V / 4 A

Housing Stainless steel 1.4301
Dimensions (WxHxD) 380 x 300 x 160 mm
Weight approx.10 kg

Acceptable surrounding temperature up to $35\,^{\circ}\text{C}$ Acceptable liquid temperature up to $60\,^{\circ}\text{C}$

Wetted materials

Stainless steel, PTFE, PFA, FPM, quartz glass
Interfaces

Operating voltage 24 V (Binder M12)

communication interface Panel PC

Fluidic connections Sample supply (p = 2...6 bar):

G1/4" internal thread

Controller module

Device type Panel PC with touch screen IP65, stainless steel

Operating voltage 24 V / 1 A

Housing Stainless steel 1.4301 Dimensions (WxHxD) 379 x 282 x 130 mm

Weight 7 kg

Acceptable ambient temperature $0 \, ^{\circ}$ C to 45 $^{\circ}$ C

Interfaces Operating voltage 24 V (Binder M12)

2x Ethernet interface RJ45 IP65

2x USB interface

Expandable with interface modules

(e.g. current loop interfaces)

Process specific System Solutions

The measuring system SITA clean line BC is flexibly adjusted to each individual cleaning technology and detects slight traces of contamination in rinsing baths. Interfaces enable the integration into the plant control for monitoring bath care as well as the integration into quality management systems for complete documentation of the process development.

Upon the basis of a combined analysis of process and plant, SITA application engineers develop optimal and customized SITA clean line system solutions.



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^{*} Default values