TRITON-CV SERIES FOR LIQUIDS

The validation of a cleaning process is mandated in virtually any manufacturing process to prevent carryover of material above a predefined acceptable level from one product to another. Typically, samples of the rinse solution must be removed from the system and taken to the laboratory for analysis of the residual material in the rinsate. This greatly slows the cleaning process while adding to the laboratory test burden and significant cost increase due to excessive use of solvents.



- Inline cleaning validation in realtime
- No more time based endpoint determination
- UV spectral sensor integrated with measurement probe, no external fiber optics
- Fully compliant with FDA requirements (CFR 21 part 11)
- Contact measurement
- Hazardous area certification
- Robust product design
- Significant savings on solvents and cleaning time
- Increase utilization and efficiency

REALTIME CLEANING VALIDATION INSIDE THE PROCESS

MEASUREMENT METHOD: The cleaning process usually involves water with various concentrations of solvents. UV spectral sensor with ATR probe is measuring in transmission mode while the rinsate is flowing by.

UNIQUE: PROBE WITH INTEGRATED UV SPECTRAL SENSOR

The TRITON CV sensor is the first real-time cleaning monitor with the spectral sensor directly integrated into the process interface itself, allowing in-line validation of the cleaning rinsate at virtually any location in the manufacturing equipment. Once the predetermined concentration level for the analyte has been reached, the cleaning process will be automatically stopped, thereby saving significant amounts of cleaning solvents, that would have been wasted with time based endpoint determination, as the cleaning process would still continue. Using BON's Triton CV products results in significant savings of solvents, reduction of equipment downtime and an overall increase in the manufacturing equipment efficiency.

SPECIFICATION FOR SENSOR FAMILY TRITON CV

Measurement method Range Accuracy

Resolution Integration time Measurement distance to material Dimensions Weight Materials of construction Light source Detector Operating temperature Voltage Industry protocols Process interface Additional components Protection class EX-Certificate and/or hygiene certificate UV - Absorption measurement, path-length 5-20mm 0-1 AU 5 ppm content in ultra-pure water (last cleaning stage) 1ppm typically < 2 secin contact Length 364 mm, diameter 114 mm, shaft 12 mm 1.5 kg Stainless steel, sapphire Flashed lamp, (life span 10⁹ flashes) UV-VIS spectral sensor, 190 - 1000 nm 5 °C to 45 °C (without cooling mechanism) 12 VDC, max. 0,8 A ProfiBus, ProfiNet, Ethernet-IP, OPC, RS Minus 485 Tri-Clamp, Milk connector, Swagelok Calibration set IP67 available



Also available with other flange adapters, such as Swagelok and more.





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