

Heartbeat Technology in the life sciences industry

Promass 100/300/500 Verification

Heartbeat Technology The pulse of your measurement

Do you want to increase your plant's availability and decrease costs? With Heartbeat Technology, Endress+Hauser offers the widest choice of measuring devices incorporating a groundbreaking diagnostics and verification concept designed with this purpose in mind.

Through a clever combination of diagnostics, verification and monitoring, Heartbeat Technology enables safe and cost-efficient plant operation throughout the entire life cycle.



Proline Promass P 100 Coriolis flowmeter



The challenge of the „biotech revolution“ Manufacturers are increasingly finding themselves confronted with what is known as the „biotech revolution“, with the focus of their work shifting away from chemical process technology and towards biological process technology. In terms of their Good Manufacturing Practices (GMP), this entails new regulatory requirements for manufacturers. However, these can simultaneously bring about worthwhile simplifications.

Historically, pharmaceutical manufacturers have used their measuring instruments solely for the primary measured variables they provide. Device maintenance is still performed on a preventive basis. Measuring devices are calibrated at regular intervals based on how critical they are to product quality, a task associated with considerable maintenance costs. In aseptic processes, measures must be taken to counteract the hygiene risks posed

when sterile pipes have to be opened up in order to perform a calibration. In most cases, it emerges that the majority of measuring instruments are functioning faultlessly and that longer periods of system downtime could be avoided.

Requirements for an optimized solution What is needed is a GMP-compliant solution that improves plant availability and that verifies the reliability of measured values at little cost. Should calibrations still be required, the cycles involved should be extended significantly.

Our solution With Heartbeat Technology, the manufacturer verifies the measuring point while it is installed. Meanwhile, the process and measurements continue to run without any restrictions. Verification takes place either on site or from the comfort and safety of the control room. A PDF document, which is generated and maintained using asset management software (DTM), provides verification of the measuring device's status.

Benefits Heartbeat Technology is capable of verifying measuring point functionality in minimum time to a level suitable for audit purposes. Plant availability is not restricted. The operator therefore has complete flexibility when scheduling a measuring point inspection for compliance with standards. In comparison with verifications performed using external test equipment, the verification function integrated in the measuring device leads to a time saving of at least 80%. Calibration cycles are extended from one year to two to three years. This results in a considerable reduction in maintenance costs and increased plant availability. Sterile pipes are opened up less often, resulting in increased product safety.

Documentation becomes child's play, as commonly available asset management tools are used to generate and maintain the verification report. Individual tests are performed free of charge using Heartbeat Technology and can therefore be performed anytime prior to the commencement of a new production batch, for example in the case of reassembly or "good-to-go" checks.

Avoid unnecessary maintenance work and increase product safety as well as plant availability using Heartbeat Technology!



Savings

- Time saving of 1.5 hours per verification = €150 per verification. The additional cost of the Heartbeat option is recouped after just the third verification.
- Calibration is required only every 2-3 years instead of annually. The savings per device range from €500 – €1,000 per verification. The cost is recouped once the first calibration is dispensed with.
- Guarantee of significantly higher returns due to plant availability.

www.addresses.endress.com