KEM Automotive

Application Spotlight

Surface coating for noise dampeners

FLOW MEASUREMENT OF AN ADHESIVE COATING IN BEST QUALITY

Technical Data

Medium:	Adhesive, Filler metal powder
Temperature:	+20 °C up to +40 °C [+68 °F up to +104 °F]
Pressure:	0.3 - 1.5 bar [4.3 - 21.7 psi]
Measuring range:	2 - 3 ml/s
Viscosity at 20 °C:	30 - 50 cSt
Density at 20 °C:	940 kg/m³

Application

To measure the flow rate of an adhesive coating, commercially available best in quality flow meters were previously used to mix the filler with a powder component. However, due to the powder component, the meters would wear out and the reliability systematically deteriorates. The expected accuracy was no longer achieved and the end product did not meet the standard required by the car manufacturer. Due to the high rejection rate, which was found in the incoming goods inspection of the customer, high damage was caused, both for the manufacturer and the end customer. High penalties for the manufacturer were the consequence, as the lack of quality caused the end customer to delay delivery. A solution was sought to solve this costly problem quickly and efficiently.

An installed monitoring system was tested in combination with a Coriolis mass flow meter and met the quality requirements. At the same time, there is no need for costly maintenance, because there are no moving parts, which can wear out, thus ensuring long-term accuracy.

Solution

TCM Coriolis Mass Flow Meter with frequency output and Modbus Communication.

Advantages

- Wear-free
- High measuring accuracy
- Direct mass measurement independent of density and temperature
- Integrated density measurement to monitor the mixing ratio for additional assurance of the production quality
- Space-saving, electronics without display
- Output signals and communication via Modbus for online monitoring

Certificates:

- *Pressure Equipment Directive 97/23/EC, 2014/68/EU*
- *HP0 - Certification*
- *Explosion protection according to 2014/34/EU*
- *CSA/UL - Certification*
- *Accreditation according to ISO 17025*

Coriolis Mass Flow Meter (TRICOR CLASSIC Series)

KEM Küppers Elektromechanik GmbH | Liebigstraße 5 | D-85757 Karlsfeld | Tel +49 8131 59391 - 0 | Fax +49 8131 92604

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