

Application-Report - Handtachometer with analog display for gearbox monitoring

Application:

Automatyka ZEIMP is a supplier of technological products in the field of rail vehicles. AZ works with high-performance and innovative partners, to provide its customers with optimal solutions for all types of applications.

Task:

The mechanical, high-precision tachometers with an analogue display are used for the following applications:

1) For preventive monitoring of gearboxes:

- ◆ The tachometer makes it possible to determine a gear ratio by measuring the speed at the input shaft and the output shaft.
- ◆ An simple analysis of the gearbox by measuring the coasting time from a defined speed to standstill. With this deceleration time, service engineers can diagnose the lubrication status of the gearbox;
- ◆ At multi-stage gearboxes, the tachometer can be used to determine the shift speed at which the changeover to the next gear stage occurs.

- ◆ At pressure reducers with an (analogue) change ratio, the transmission limits can be determined with the help of two tachometers.

2) For monitoring the reaction speed of centrifugal releases, speed measurement in steam locomotives and battery-powered locomotives. In particular, checking the permanently installed speed measuring devices and the emergency releases (brakes) is carried out with the mechanical hand-tachometer.



Source: AUTOMATYKA ZEIMP

Solution:

Mechanical precision tachometers of the HTM series are used. If the special application situation requires it, the HTM with ATEX approval is used.

Why do the specialists at AUTOMATYKA ZEIMP prefer these devices?

1. HTM-tachometers are characterised by their remarkably high reliability.
2. Due to the purely mechanical operation, no power source (batteries, accumulators, ...) is required.
3. The experienced service engineer diagnoses e.g. a reduction gear by following the pointer movements of the analogue display.



Mechanical Hand-tachometers HTM / HTM ATEX

RHEINTACHO is a flexible, highly efficient partner- wherever speed must be measured, monitored or indicated. Innovation, the most modern production techniques and equipment, meticulous quality control along with a first-class workforce are the corner stones of our company. Since 1901, RHEINTACHO has used his extensive knowledge and experience to develop sensors, systems and customized solution to meet the customer's requirements.