

Application-Report - Hydraulic propulsion



Task:

A precise collection of actual values directly at the place of consumption (propulsion, toppers, and sugar beet transport systems) is an absolute requirement for the optimum balancing of performance requirements of HOLMER high-performance harvesters for various consumers. The entire system must react precisely and quickly to the changing demands of the decentralised consumer.

Example:

- ♦ Harvesting when the soil is looser requires less power for the harvesting module.
- ♦ Driving through deep soil requires more propulsion power.

These parameters can change during a harvesting process with the result that constant adjustment is necessary.



Source: Holmer

Solution:

Decentralised collection of the actual, current performance needs, from which derives a precise adjustment to the power production. Rotational speed sensors offer an excellent opportunity to record one of the most important performance indicators, namely the rotational speed, in a cost-effective way and without construction restrictions.

The sensor electronics of the fitted FC-series (SDN3.FC07. E05J) with asymmetric, one-eyed flange is constructed as a two-channel hall differential sensor. This sensor range complies with the standard DIN/EN 13309 (construction machines, agricultural technology). The sensor is designed to withstand especially high temperatures (up to 160 °C) and pressures thanks to its special brass alloy. The brass sensor complies with protection type IP69K thanks to its intelligently designed sealing system.

The sensors of the FC series have two frequency outputs. The extremely narrow tolerated phase shift of 20° in identifying the direction of rotation means that the sensor provides a highly precise signal and enables highly sensitive controlling.



IP67

IP69K

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. For the past 114 years, Rheintacho has used his extensive knowledge and experience to developed sensors, systems and customized solution to meet the customer's requirements.