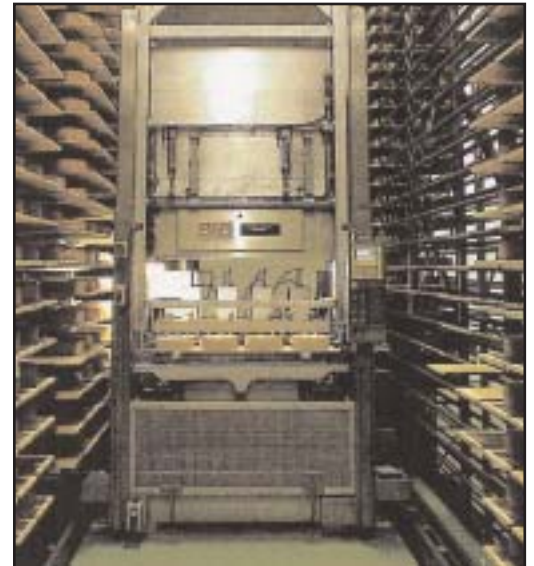


Application Notes...



Automatic storage systems

With automatic collection of goods from, and placement in, storage bays prevalent in modern warehouses, precision feedback is essential to ensure that the computer controlled forklifts are in the correct position.

Brief given

Sensor-Technik was asked for a sensing solution that could be fitted on the back of an electric motor to provide accurate absolute position information. The position information also need to be part of a closed loop with the motor to compensate for overshoot. The solution also had to provide security interlocks for the mainframe computer to eliminate the possibility of damage through over-run.

The solution

A CANbus absolute position encoder was chosen. This assured a simple interface to the mainframe computer and meant each forklift truck could have its own system, with the onboard computer reading the output and controlling the motor accordingly.

The solution had the added benefit that information could be easily sent to all forklift trucks. This provided a means to enable the closest forklift truck to a given item to make the

collection, eliminating complex addressing and significantly reducing communications times.

To meet security requirements, mechanical switches were mounted on the back of the encoder to stop the vehicle in the case of over-run.

Implementation

The software and hardware set-up were by no means trivial, but the biggest problem was to mount the encoder in the small space available without compromising airflow to the motor. Sensor-Technik solved the problem by modifying the cable entry and connections.

Conclusion

The CANbus communications are both secure and proven, giving high reliability and assured system integrity – the key to making this automated positioning system possible.

Sensor-Technik

Complete solutions

Sensor-Technik is fully able to meet your systems needs, by offering a unique product design and manufacture facility to build up complete sub-assemblies where necessary, from development of specifications to delivery of the finished product, guaranteed to offer performance and reliability in even the toughest of environments.

With our in-house design capabilities, the resources of our own machining facilities, decades of applications experience and approvals from the likes of the Ministry of Defence and NATO, we can tailor a standard product to meet your exact requirements.

The UK's CANbus specialist

Making the move to a bus-based control system is a big step, but it needn't be a difficult one. Whether you require fully-approved components with a track record, or complete system design, Sensor-Technik has the answer. And we'll be with you every step of the way.

CANbus provides the ideal system for integrating electronic controls into vehicles and machinery, particularly because it's a system which is to ISO standard and which is supported by so many different manufacturers.

Sensors and displays

From pressure sensors to load cells to encoders – and many other electro-mechanical products besides – Sensor-Technik has one of the widest ranges of products available. Further, Sensor-Technik's sensor products are all available as standard with read-out units that provide clear indication of the parameter being measured.

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