

FORKLIFTS

CANopen interface in the fork

Vetter (Germany) provides in its Smartfork sub-system CANopen interfaces for connecting sensors.



Forklifts are migrating increasingly to automated guide vehicles (Source: Vetter)

Automated guided vehicles (AGV) are of growing importance in intra-logistics. The autonomous vehicles are the core of automated logistics processes. Traditional forklifts need to go this direction and should become AGVs. The Smartfork supports this. The offered forks are "smart" meaning they can be equipped with sensors to support the automated driving.

For example, integrated light sensors in the fork tip recognize the end of the pallet, so the load is picked up safely without damaging the goods behind it. Sensors in the middle of the fork blade enable the detection of crosswise or lengthways stored euro pallets. The integrated sensor technology also indicates when the permissible entry depth is reached. The integrated installation of camera systems both in the fork tip and on the side of the fork offers additional options for use in automated guided vehicles.

Another feature is the Smartfork scale, a weighing fork with which the weight of the load can be determined. Additional functions such as indication of the load center and the load distribution on the forks prevent incorrect or overloaded vehicles. The weight data and sensor information determined through the weighing fork are transmitted via open interfaces, e.g. CANopen or MQTT, processed directly into the AGV control and optionally transferred to the ERP system.

The integration of the required functions and sensors as well as the implementation take place in close coordination with the original equipment manufacturers. The company offers the complete design- and development process to provide an entire system ready for installation.

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