

Optical Line Tracker (CANopen)

G_73830ZA

Operation

The Optical Line Tracker HG 73830ZA described in this data sheet is one component of an optical guidance system for Automated Guided Vehicles (AGV) which guides along a line of optical contrast (dark/light). The Optical Line Tracker evaluates the position of the optical contrast line within the picture supplied by the camera and outputs its position relative to the center of the picture. It is also possible to use the Optical Line Tracker in applications with branchings off the main course.

The video multiplex unit included in the Optical Line Tracker allows to connect up to two standard black/white video cameras with composite video signal. This enables guiding the vehicle into two different directions of travel.



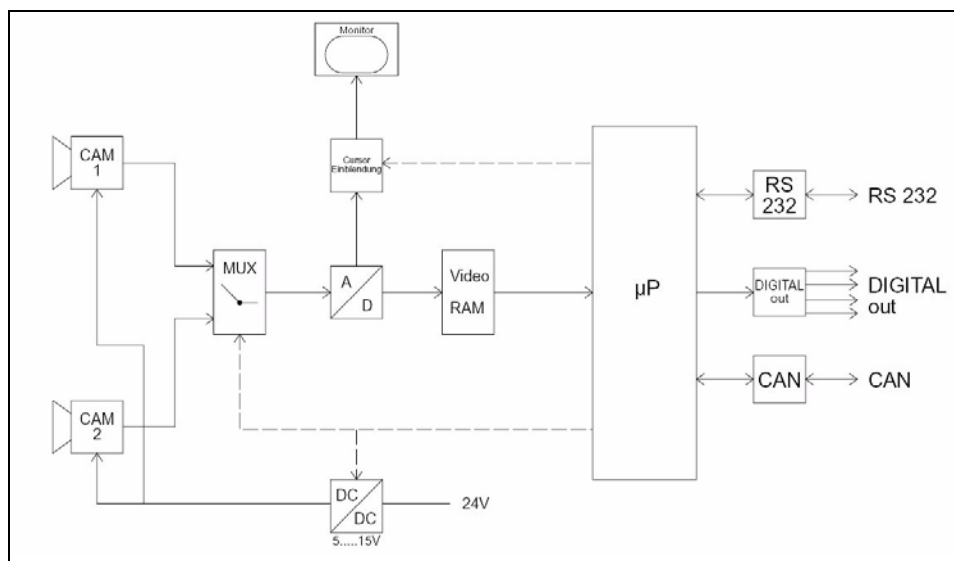
Advantages

- ♦ modular structure
- ♦ connectivity for up to two video cameras
- ♦ CANopen and analog output
- ♦ display of the location of the track via a LED bar or external video monitor
- ♦ RS 232 service interface for parameter settings and tests with a Laptop/PC

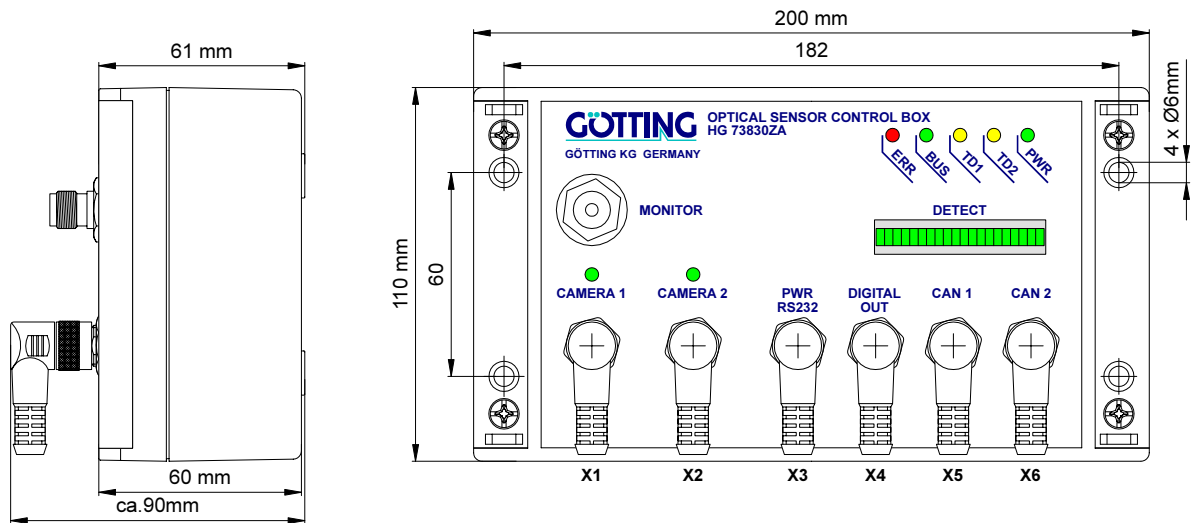


Example of an optical track branching

Block Diagram



Dimensions



Technical Data

- dimensions	90 mm x 110 mm x 200 mm (H x L x W)
- temperature range	-20° C to +60° C
- protection class	IP65 with bolt plug cap
- cameras	2 camera systems alternatively selectable, composite video, signal 1 V _{PP} / 75 Ohm
- update rate	40 ms
- operating voltage	Optical Line Tracker: 24 VDC - 25 % / + 50 %, 180 mA @ 24 V (without camera) camera: +5 ... + 15 V to 1 A
Interfaces	
- CAN Bus	non potentially separated, CANopen, device profile DS 401, Node ID and transmission rate via serial interface, resp. SDOs, configurable; no terminal resistor.
- digital output	R _i ~ 0.4 Ohm / U _a ~ U _b for active / U _a < 1.5 V for inactive / I _a < 0.7 A per channel, short-circuit safe
- analog output	non potentially separated, short-circuit safe, ±10 V max. ±1 mA
- monitor serial	38400 baud, 8 data bits, even parity, 1 stop bit, potentially separated