

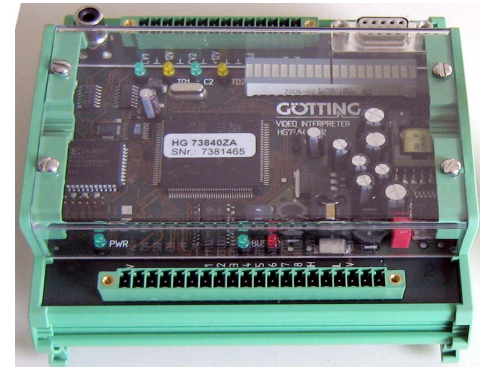
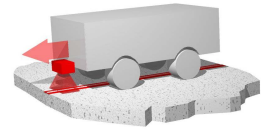
Optical Line Tracker

HG G-73840ZC

Operation

The Optical Line Tracker HG 73840ZC 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.



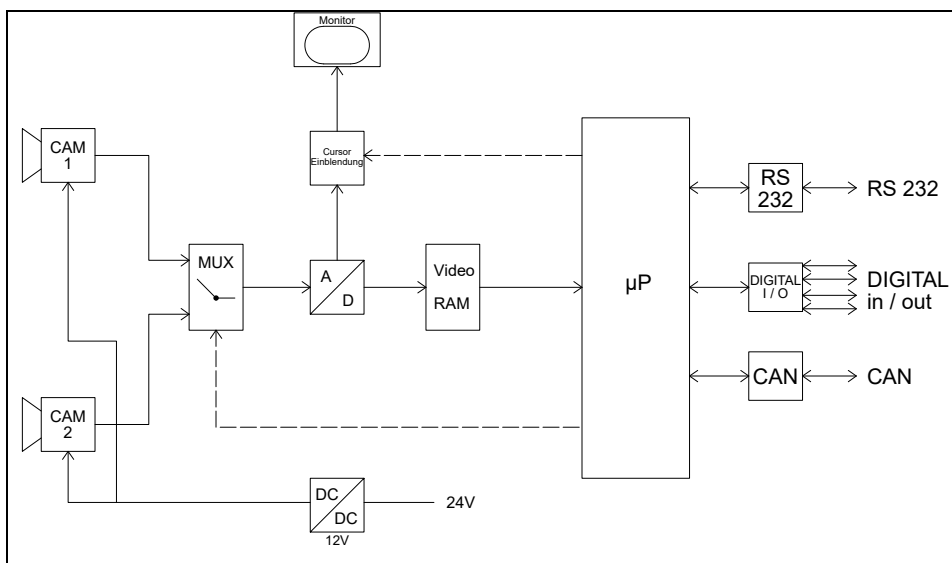
Advantages

- ♦ modular structure
- ♦ connectivity for up to two (2) 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

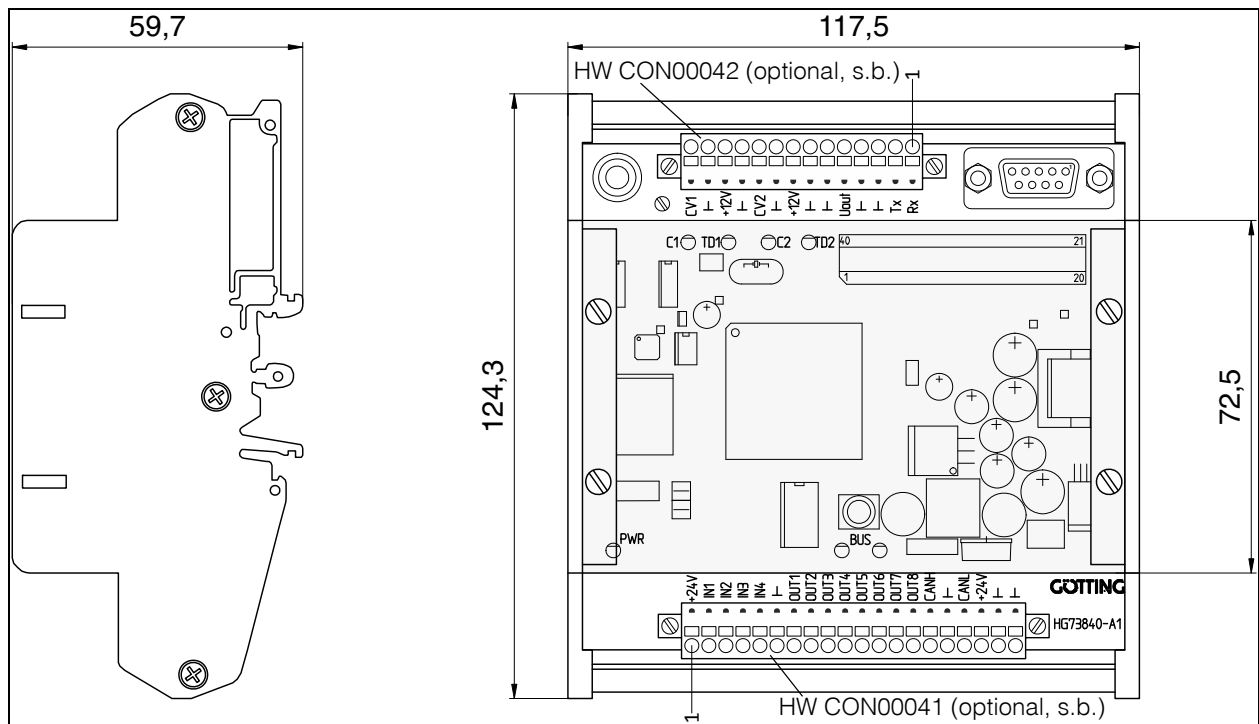


Example of an optical track branching

Block Diagram



Dimensions (top hat rail mounting)



Note: The sketch shows the device with the following optional connector plugs attached. Those are not in the scope of supply.

- ♦ HW CON00041 (20-pin)
- ♦ HW CON00042 (14-pin)

Technical Data

- Dimensions	60 mm x 125 mm x 118 mm (H x L x W)
- Temperature range	-20° C to +50° C
- Protection class	IP20
- Cameras	2 camera systems alternatively selectable, composite video, signal 1 Vss / 75 Ohm, switchover time 300 ms (switch-on/switchover)
- Update rate	20 ms
- Operating voltage	Optical Line Tracker: 20 V to 30 V, 130 mA @ 24 V camera: +12 V bis 0,3 A
Interfaces:	
- CAN Bus	non potentially separated, CANopen®, device profile DS 401, Node ID and transmission rate configurable via serial interface, resp. SDOs; no terminal resistor.
- Digital input	inactive for $U_{in} < 9\text{ V}$ / active for $U_{in} > 15\text{ V}$ / $-30\text{ V} < U_{in} < +30\text{ V}$, $R_i > 3300\text{ Ohm}$
- Digital output	$R_i \sim 0.4\text{ Ohm}$ / $U_a \sim U_b$ for active / $U_a < 1.5\text{ V}$ for inactive / $I_a < 0.7\text{ A}$ per channel, short-circuit safe
- Analog output	non potentially separated, short-circuit safe, $\pm 10\text{ V max. } \pm 1\text{ mA}$
- Monitor serial	38400 baud, 8 data bits, even parity, 1 stop bit, non potentially separated