Most vehicles used for internal transporta-
tion are more or less guided by a fixed sys-
tem. This includes railbound systems as well as systems that are guided by an in-
ductive wire. Using inductive transponders 
within the track already offers more flexibili-
ty. However, navigation via laser scanners 
has proved to be even more advantageous.

Our laser scanner system HG G-43600-A 
enables very flexible guidance of a vehicle. 
Apart from the necessary reflection marks, 
the vehicle is more or less guided autono-
mously, depending on the program. In con-
nection with sensors for obstacle detection 
(ultrasonic or optical systems) obstacles, 
when emerging, can be avoided and the 
vehicle is guided to its destination using al-
ternative routes.

Within the whole range of the path the vehi-
cle’s position is checked frequently at a 
high measuring rate, which guarantees reli-
ability. The positioning accuracy is good 
enough so that it even meets the higher de-
mands required when transferring loads au-
tomatically.

For accurate position determination addi-
tional rotary encoders are necessary.
Laser Scanner

Variants / Signals

HG G-43600ZA

- Electrical connections compatible with previous model HG 43400-B:

<table>
<thead>
<tr>
<th>Signal</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Index</td>
<td>Index pulse of rotary encoder (zero mark of angular measurement)</td>
</tr>
<tr>
<td>Track A</td>
<td>Tracks A and B of rotary encoder (single-step pulses of angular measurement)</td>
</tr>
<tr>
<td>Track B</td>
<td></td>
</tr>
<tr>
<td>Mark</td>
<td>Mark registered (digitized signal of mark recognition)</td>
</tr>
<tr>
<td>IRQ</td>
<td>Event indication generated by “mark” or “index”</td>
</tr>
<tr>
<td>Null</td>
<td>“Index pulse” occurred</td>
</tr>
</tbody>
</table>

HG G-43600YA

- Pre-processing and filtering of signals
- Serial output of reflection marks date
- Interfaces: RS 232, RS 422, RS 485, CAN, 6 inputs

HG G-43600XA

- Orientation computer completely integrated
- Output of position and angle
- Interfaces: RS 232, RS 422, RS 485, CAN, 6 inputs

Technical Data

- Dimensions: diameter 153 mm, height 150 mm
- Weight: approx. 2.3 kg
- Protection class: IP 67
- Connection: plug connector Type M23
- Temperature range: -25 to +50°C (with heating)
- Power supply: 18 to 30 VDC
- Current consumption: approx. 0.6 A (without heating) approx. 1.2 A (with heating)
- Transmitting power: 1 mW (laser class 1)
- Range: 1 to 30 m
- Measuring rate: 6 to 18 s⁻¹
- Angular resolution: up to 65536 increments/360°
- Accuracy: better than ±5 mm repeating accuracy for absolute positioning (min. 4 marks visible & read, mark distance min. 15°, distance to sensor max. 15 m)
- Ambient light: < 10,000 Lux