

# Transponder for KATE

HW DEV00130X

## Functional Description

The transponders are operated at 125 kHz.

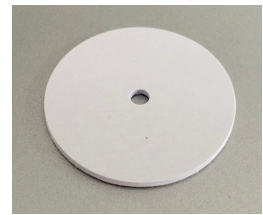
The transmitting antenna of the reading unit supplies the transponder with energy by using an alternating field of 125 kHz. This induces a voltage within the coil of the transponder, which generates a current that is sufficient power supply for the micro chip.

The system's operability is guaranteed through fluid, gaseous as well as solid material.

However, if mounted directly on or within metal, the transponder's reading distance is influenced and the positioning signal may be distorted.

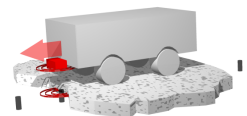
### Read-Write-Transponder (RW)

The Read-Write transponders are equipped with an EEPROM in which the code is stored. The EEPROM may be rewritten up to more than 100,000 times.



Transponder variant pre-programmed with user-defined codes:

**HW DEV00130U**



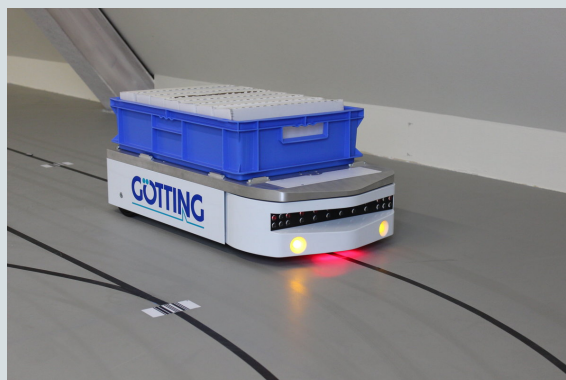
## Technical Data

|   |                |
|---|----------------|
| Outer diameter  | ø 30 mm        |
| Mounting hole   | 3 mm           |
| Thickness   | 1 to 1.2 mm    |
| Weight  | 1.4 g          |
| Material  | PVC, laminated |
| Reading time  | 12 ms          |
| Operating temperature   | 0 to +50° C    |
| Storage temperature   | -40 to +75° C  |
| Protection class  | IP 65          |
| Reading system, read write  | ASK            |
| Operating frequency   | 125 kHz        |
| Useful data   | 16 Bit         |
| Min. distance between two transponders  | 500 mm         |
| Reading distance  | approx. 30 mm  |
| Underside self-adhesive type 3M 9080A double coated tissue tape with protective sheet |                |

## Application Examples from the Automation Industry

### ♦ Automated Guided Vehicles (AGV):

- Positioning
- Track Guidance
- Identification



**GÖTTING**