

Transponder

HW DEV00033

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.

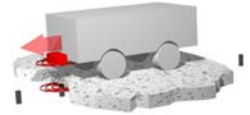
However, if mounted directly on or within metal, the transponder's reading distance is influenced and the positioning signal may be distorted.

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:

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Technical Data

Function	Antenna (HG No. & Variant)
	71450Y, 71451Y, 71452Y
Outer diameter	ø 30 mm
Mounting hole	5 mm
Thickness	2 mm
Weight	2,7 g
Material	Epoxy
Reading time	24.5 ms
Operating temperature	-25 to +60° C
Storage temperature	-40 to +75° C
Protection class	IP 67
Reading system, read write	ASK
Operating frequency	125 kHz
Useful data	16 Bit
Min. distance between two transponders	500 mm
Programming device	HG 81830XA
Reading distance	approx. 50 mm please refer to the data sheets of the individual antennas

Application Examples from the Automation Industry

♦ Automated Guided Vehicles (AGV):

- Positioning
- Track Guidance
- Identification

