

# Transponder

G 70650WA

## Technical Description

The system uses frequencies in the range of 128 and 64 kHz (they are below the long-wave radio).

The Transponder Reader supplies the Transponder with energy via an alternating electro-magnetic field of 128 kHz. This effects induction of a voltage inside the transponder's coil. The generated current is sufficient for energizing the built-in micro chip. The Transponder then returns its code to the

antenna at half this frequency (full duplex operation). The normal reading cycle, including all checks takes approx. 50 ms.

The system is functional through fluid, gaseous and solid material, as long as not metal is involved. In case the transponder is mounted directly onto or into metal surroundings, the reading distance as well as the signal for positioning will be influenced.



### Read-Write-Transponder (RW)

The Transponder code is stored inside an EEPROM, that is capable of more than 100.000 programming cycles. The EEPROM has eight blocks of 32 Bit each. 20 Bit are available for user data.



## Application examples Automation Technology

- ♦ Automated Guided Vehicles (AGV) for outdoor use

- ♦ Guidance of heavy load vehicles
- ♦ Positioning of Container Cranes (RTG, RMG, STS)

## Technical Data

- Dimensions(L x W x H [mm])	ø80 x 26
- Weight	210 g
- Material	GFK
- Operating Temp. [°C]	-40 to +85
- Storage Temp. [°C]	-40 to +180
- Protection Class	IP 67
- Code	EEPROM, read/write
- Data	20 Bit user data
- Reading Distance	Depends on the Reader Antenna Nominal reading distance with Antenna HG 98760: 90 - 120 mm
- Writing Distance	Depends on the writing device