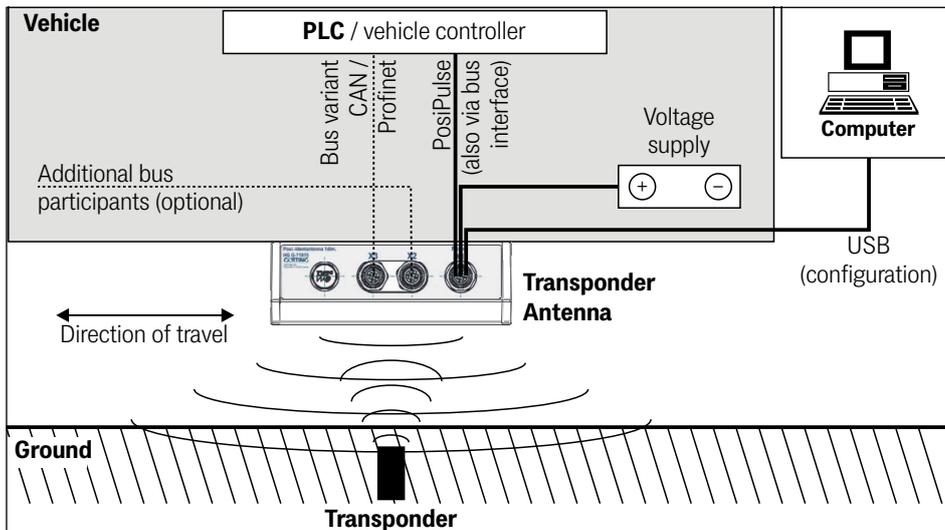


Functional Description



Main Features

- Transponder antenna for the positioning of automated guided vehicles (AGV)
- Output of transponder code (via the bus) and PosiPulse (bus and digital)
- Operating frequency 128 kHz
- Protection class IP 65
- Reading distance 5-80 mm, depending on the transponder type, see technical data
- max. crossing speed 2.0 m/s
- Voltage supply 18 – 30 VDC
- 3x M12 connectors
- Data interface: CAN Basic / CAN Extended / CANopen® or Profinet®
- Service interface: USB for configuration
- Display of operation state via LEDs, that illuminate the roadway (s. image below)
- Transponder programming

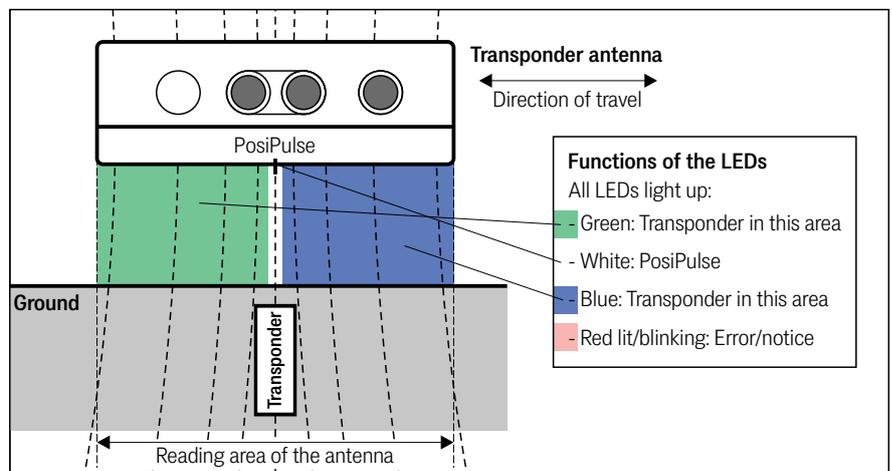
The transponder antenna is used in identification systems with positioning. The antenna receives the unique transponder code while a transponder is within its field and outputs it. Additionally a positioning pulse (PosiPulse) is generated when the antenna moves over a transponder and the antenna's center crosses the transponder. This enables the recognition of predefined positions.

Due to the low operating frequencies (128/64 kHz) the transponder reading is virtually not influenced by any non-conductive material (fluid, gaseous, as well as solid).

The transponder code of compatible Read/Write transponders can be reprogrammed with the antenna.

As soon as a transponder is within the reading range of the antenna, it is supplied with energy inductively (alternating field of 128 kHz, contact-free) and then cyclically sends its code back at half the transmission frequency of the antenna. Otherwise the transponder is completely passive and does not need a power supply or battery of its own. Only one transponder at a time may be within the reading range of the antenna.

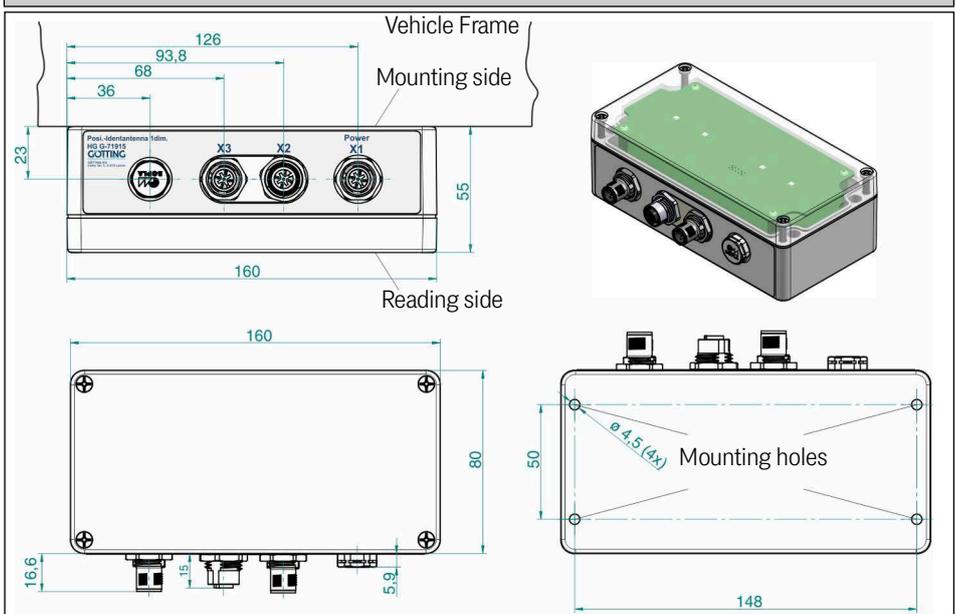
Reading area, PosiPulse and functions of the LEDs



Mounting notes

- Use the feed-throughs for screws for the assembly (see picture).
- The transparent cover must be temporarily removed for installation.
- The mounting side must not face the transponder.
- The antenna can be mounted directly on metal.
- Interferences such as conductive materials, conductor loops and reinforcements in the reading range of the antenna or in the vicinity of the transponder (see transponder data sheet) as well as interference signals from clocked drives and their power supply cables must be avoided.
- Only one transponder at a time may be within the reading range of the antenna. Between two transponders a minimum distance of 240 mm must be maintained.
- Between two transponder antennas a minimum distance of 240 mm must be maintained.

Casing Dimension / Mounting



Variants

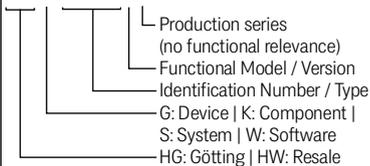
HG G-71915	ZA	CAN-Bus
	YA	Profinet® with integrated switch

**Complementary products / accessories
Transponders: Selection of common types**

HW CAB00001	X1: Cable PUR, 5 m, M12 elbow socket, open end
HW CON00055	X2: CAN bus terminator
HW CAB00064	X3: CAN bus cable, 10 m, with shielding, M12 socket straight, open end
HG G-71325XA	Transponder
HW DEV00095 and similar types	Disc Transponder
HW DEV00098 and similar types	Disc Transponder pre-programmed
HG G-70633ZB	Glass Transponder
HG G-81840ZA	Transponder programming device
HG G-20960ZA	Connection box M12/USB

Götting Product IDs (order codes)

HG G-71915ZA



Pin allocations, all connectors M12

Pin	X1	X2	X3		
	ZA & YA	ZA (CAN)	YA (Profinet)	ZA (CAN)	YA (Profinet)
1	5 pin, A coded male	5 pin, A coded, female	4 pin, D coded, female	5 pin, A coded, male	4 pin, D coded, female
2	+UB	-	TX+	-	TX+
3	PoisPulse out	+UB	RX+	+UB	RX+
4	D+ (USB)	GND	TX-	GND	TX-
5	D- (USB)	CAN_H	RX-	CAN_H	RX-
	GND (Data & supply)	CAN_L		CAN_L	

Technical Data

Dimensions	160 mm x 80 mm (plus connectors) x 55 mm (W x D x H, see image above)
Casing	Polycarbonate
Weight	450 g
Protection class	IP 65
Reading distance	<ul style="list-style-type: none"> • 5 – 60 mm with Transponder types HG G-71325XA, HW DEV00095/98, HW DEV00090/99, HW DEV00130ZA/VA, HW DEV00131ZA/VA • 5 – 80 mm with Transponder types HG G-70633ZB, HW DEV00162, HG G-70650VA, HG G-70652ZC, HG G-70654ZB • 15 – 80 mm with Transponder Type HG G-70653ZA
Relative humidity	95 % @ 25° C (without condensation)
Temperature ranges	Operation: -25° C to +50° C / Storage: -40° C to +85° C
Voltage supply +UB	+18 VDC to +30 VDC, nominal voltage +24 VDC
Current consumption	130 mA @ 24 VDC
Operating frequency	128 kHz
Code length	20 Bit (Trovan™)
max. crossing speed	2,0 m/s
Repeat accuracy	±2 mm @ 0.5 m/s with noise-free environment
Output	<ul style="list-style-type: none"> • Via bus telegrams: Transponder code and PosiPulse Profinet® or CAN, depending on the antenna variant • Digital output: PosiPulse +UB / 20 mA current source, configurable duration
Connectors	3x M12 circular connectors, pin allocation see table above. Cables for several interfaces available as Götting accessories (see box „complementary products“)
Configuration	Via USB service interface in connector X1, USB Virtual COM Port