

Inductive Proximity Warning System

S_70323-A

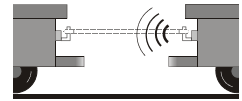
Description

To ensure trouble free operation it is necessary that collisions between unmanned transport vehicles (AGVs) are eliminated. In general this function is implemented by a route co-ordinating computer, provided that the current position of every single AGV is known. This is not always the case, for example over long distances or in queues, so the separation of vehicles must be guaranteed by their own „intelligence“.

The proximity warning system S_70323-A from Götting KG is suited to nearly all areas in which production and transportation are

to be automated. This results in considerable simplification of system control through supervision and controlled output from routing computer to vehicle.

The distance determination between vehicles employs a transmitting/receiving antenna working in the frequency area of 10 to 100 kHz. It has proven its worth since it is not influenced working through dirt, humidity, sound or light.



Applications

- ♦ Forklift AGV
- ♦ Control of loading and unloading processes
- ♦ Safe distancing of track travelling vehicles
- ♦ Positioning aid for manned transport vehicles



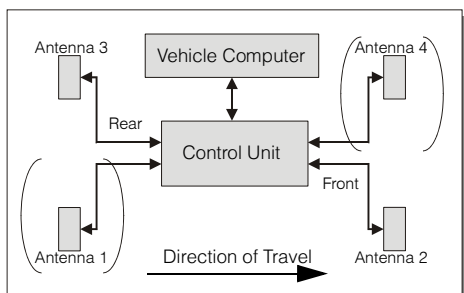
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Construction and Function

The proximity warning system G_70323-A from Götting KG is of modular construction. An application specific optimally tuned system is given by combining individual building blocks. Customer specific variations are realised with little development and production costs.

On the basis of its modular construction, the proximity protector can be installed in various ways. The principal functions available in a standard configuration should be explained.

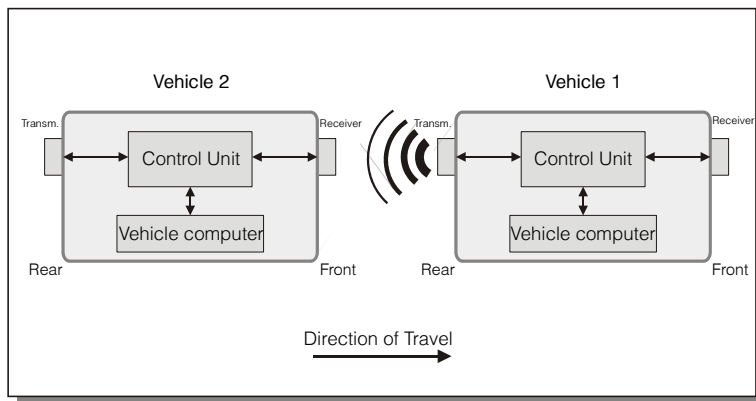
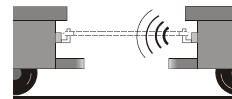


The proximity protection system consists of:

- Microprocessor control unit
- 2 or 4 transmitting/receiving antennas
- Connection cables between antennas and control unit

Proximity protection with two antennas

The make-up for a vehicle consists of the control unit and two transmitter/receiver antennas, which are each mounted at the front and rear sides of the vehicle and connected to the control unit by cabling.



The appropriate antenna in the front of the vehicle receives an alternating magnetic field from a preceding vehicle. The field strength relates to the distance. Accordingly, an alternating magnetic field is transmitted from the rear mounted antenna, that can be received by any following vehicle.

Dual frequency operation allows to overtake or two-way traffic.

Technical Data

Control unit G_70323-A		T/R Antenna G_70330	
- Working range	400 to 4000 mm	- Dimensions	100 x 50 x 50 mm
- Dimensions	200 x 110 x 86 mm	- Material	Plastic ABS
- Material	Plastic ABS	- Weight	160 g
- Weight	650 g	- Env. temp. range	-20 to 45° C
- Env. temp. range	-20 to 45° C	- Stor. temp. range	-20 to 70° C
- Stor. temp. range	-20 to 70° C	- Relative humidity	95 % (at 25° without condensation)
- Relative humidity	95 % (at 25° without condensation)	- Protection class	IP65
- Protection class	IP54	- Test voltage	200 V (for insulation strength)
- Oper. volt. range	18 to 30 V	- Connectors	M12x1 connector
- max. rem. ripple	0.1 V _{rms}	- Cable length	max. 10 m
- Power consumpt.	250 mA		
- Test voltage	200 V (for insulation strength)		
- Connectors	7 M12x1 connectors		
- Interfaces	digital, analog, serial, Profibus, CanBus		

