

Guiding System



Guiding System

KEY FEATURES

- ▶ Guides the driver to the correct location in an easy way (saving time)
- ▶ Short training period for new drivers
- ▶ Only inexpensive passive components (reflectors) on the vehicles
- ▶ Robust system due to measurements towards reflectors
- ▶ Possible to get statistics for the process

Applications

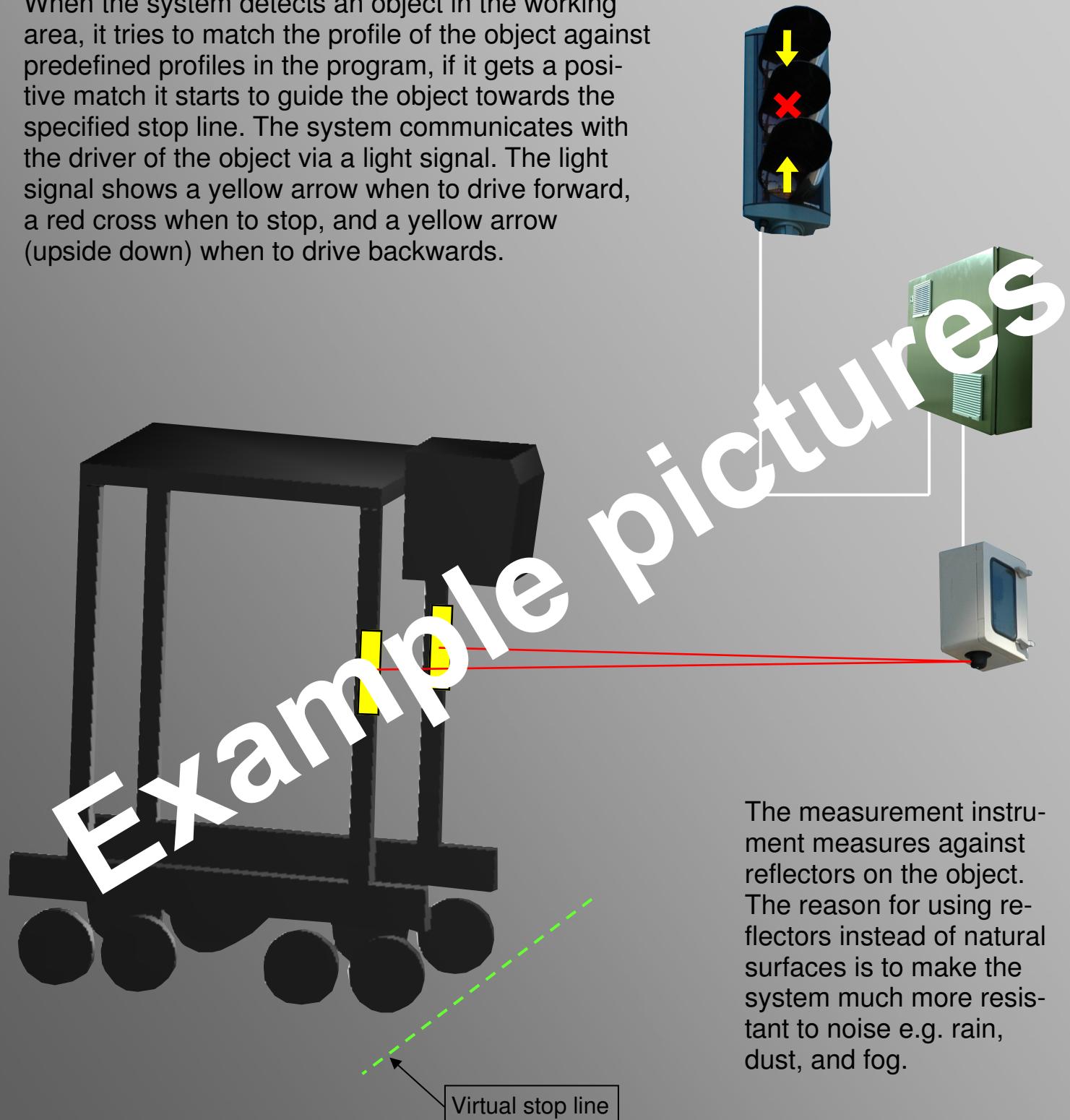


- ◆ Straddle carriers dropping off containers at a crane
- ◆ Trucks driving backwards toward a loading dock
- ◆ Cargo ships passing through a lock
- ◆ Trucks that need to be exact positioned to be able to load
- ◆ Garbage trucks picking up garbage canisters

Guiding System

System Description

When the system detects an object in the working area, it tries to match the profile of the object against predefined profiles in the program, if it gets a positive match it starts to guide the object towards the specified stop line. The system communicates with the driver of the object via a light signal. The light signal shows a yellow arrow when to drive forward, a red cross when to stop, and a yellow arrow (upside down) when to drive backwards.



The measurement instrument measures against reflectors on the object. The reason for using reflectors instead of natural surfaces is to make the system much more resistant to noise e.g. rain, dust, and fog.

Guiding System

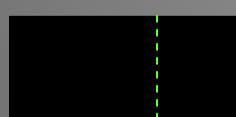
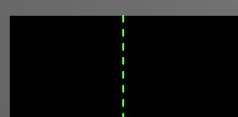
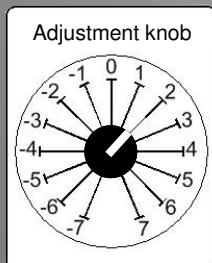
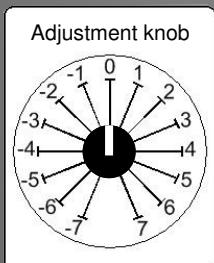
Specification and Options

Table1: Specification (and options)

Typical maximum distance from measuring instrument to object [m]	50
Number of stop lines	1(1-99)
Number of other types of detection areas	0 (0-99)
Enhanced guiding	No (Yes, two enhanced versions)
Distributed Inputs and outputs	No (Yes)
Control box for easy adjustment of stop line position	No (Yes)
Light signal	3 lamp version, (5 lamp version)
Measurement instrument	2D scanner (high precision 2D scanner)
Remote control	No (Yes)
Statistical data	No (Yes)

Description of Options

Adjustment of Stop Line



Seven incremental steps in each direction

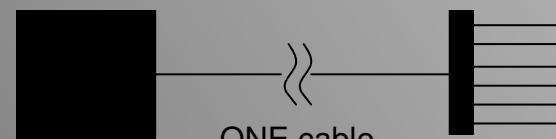
Distributed I/O

Internal I/O (standard)



Many cables

Distributed I/O



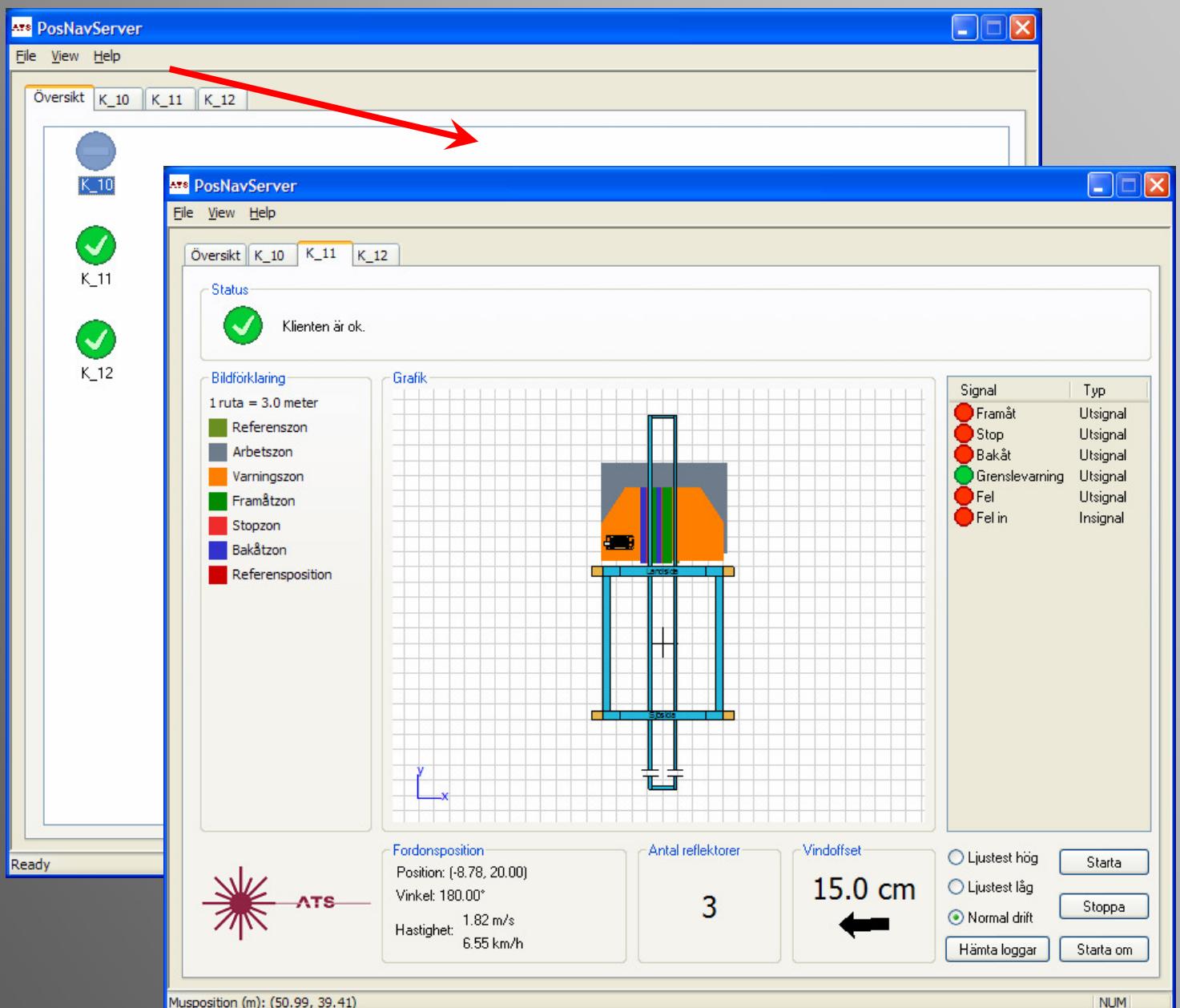
ONE cable,
up to 2000m

Guiding System

Description of Options

Remote Control and Statistical Data

- Graphical user interface on local computer communicating through LAN
- Remote control and status for one or many systems
- Statistical functions e.g. docking time etc.
- Position, angle, and speed for the guided object



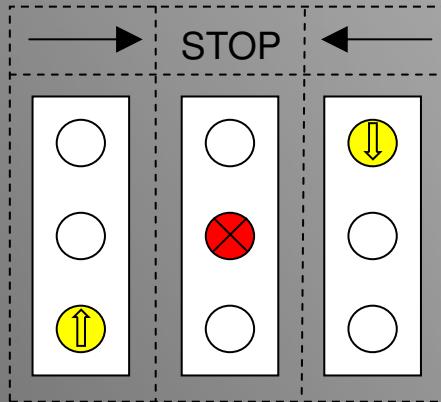
Detection areas: Notice the extra detection area, marked in orange in the picture.

Guiding System

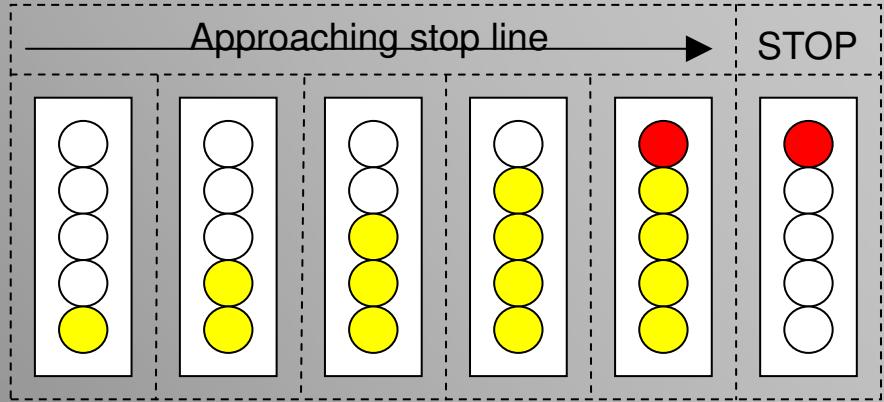
Description of Options

Light Signal Options

Standard



"Temperature Scale"

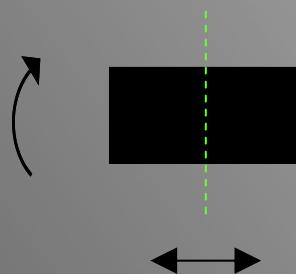


Enhanced Guiding Options

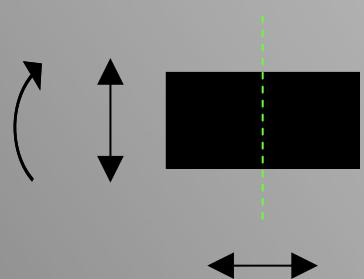
Guidance to stop line
only (standard)



Guidance to stop line
and direction



Guidance to stop line,
direction, and point on
line (stop point)



Guiding System

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