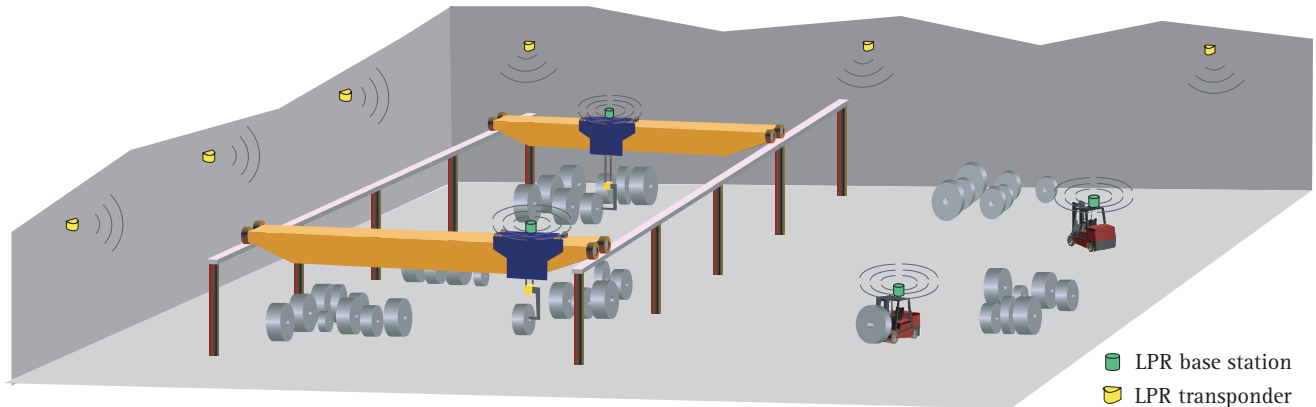


Highly Available Position Detection



LPR-2D

Position detection of cranes and vehicles for tracking of goods

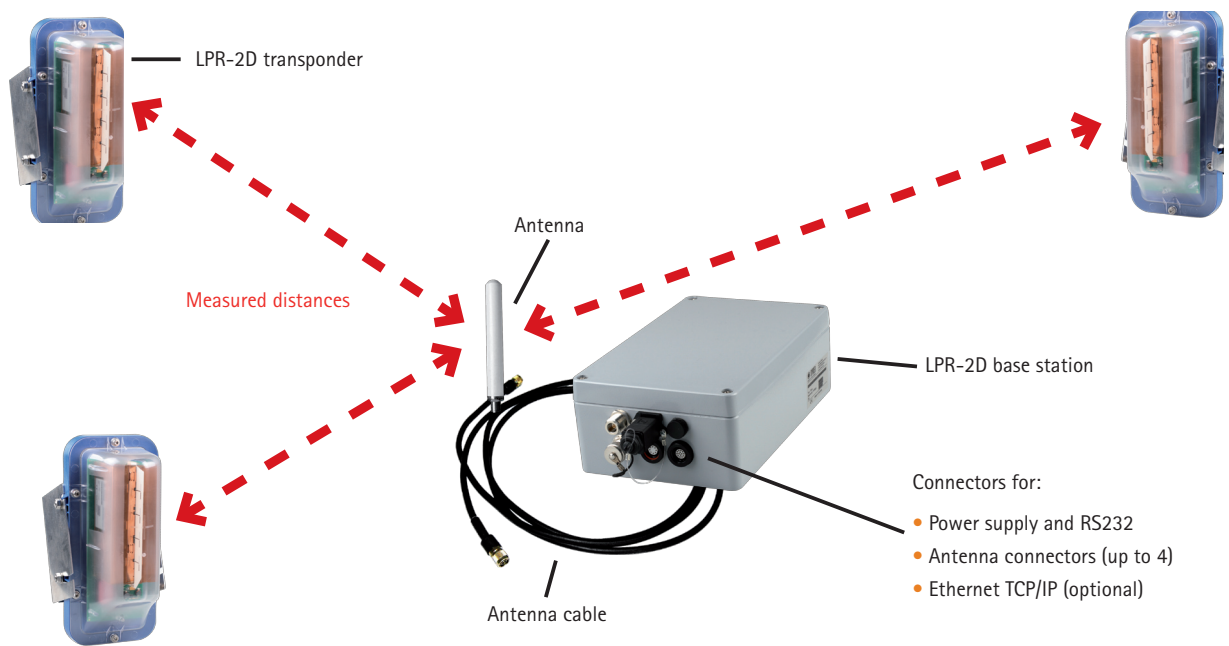
- Determination of position and heading angle
- Contact-less measurement via radio waves
- Unlimited system range
- Unaffected by contamination, weather and vibration
- Simple installation indoors and outdoors
- Retrofit during continued operations possible
- Suitable for all vehicle and crane types
- Maintenance-free

LPR-2D enables the exact position detection of cranes and transport vehicles indoors and outdoors even under harshest industrial conditions. The system measures the distance between base stations (on moving objects) and fixed reference marks, the so-called transponders, in order to compute their current position and heading angle.

With an LPR-2D system, several cranes on one guide rail or vehicles in the same area can be acquired dynamically and with high availability. Determining a position requires contact with at least three transponders.

LPR-2D is easily adapted to local conditions. The transponders can be mounted at varying heights and distances from each other. With a typical arrangement, the full position detection functionality is maintained even if contact to a transponder is interrupted. The reliability of the maintenance-free sensors is not affected by heavy contamination or vibrations.

The simultaneous, interference-free operation of a radio data network (WLAN) is possible.



Technical Data: LPR-2D

Frequency range	5.725–5.875 GHz, ISM-band
Output power	Max. 0,025 W EIRP
Measuring distance base station to transponder	Up to 400 m *
System range	Unlimited
Typical accuracy	Up to ± 5 cm *
Repeat rate	Up to 25 Hz
Voltage	10–36 V DC
Power consumption	4–8 W at max. update rate
Ambient temperature	-40 °C to +75 °C
Protection class	Up to IP65
Housing base station (LxWxH); weight	260 x 160 x 91 mm; 2.5 kg
Housing transponder (LxWxH); weight	281x125x150 mm; 1.0 kg
Hardware interface	Serial RS232, TCP/IP (optional)
Data interface	Syмео ASCII or binary protocol
External connector type	Plug
Antenna(s)	Up to 4 antennas, N-connector
Compliance	CE mark

* depending on the type of antenna and application conditions