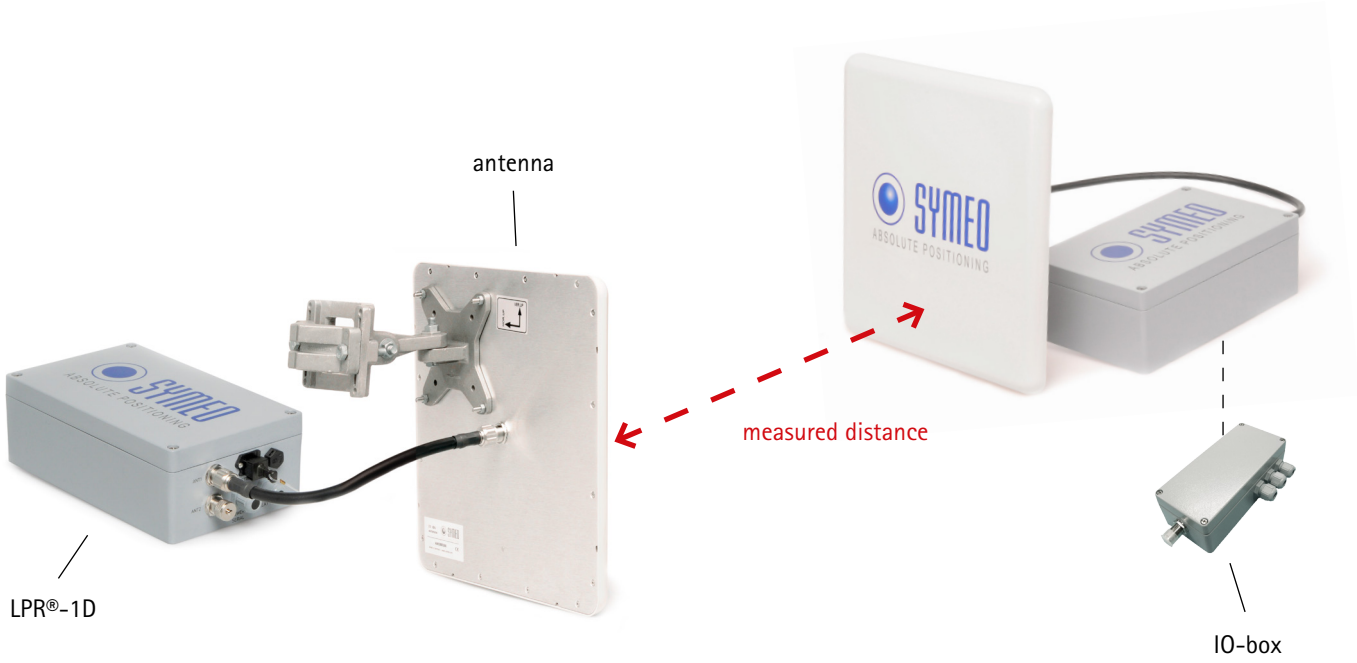
LPR®-1D

Data Sheet



LPR®-1D

Flexible Position Detection with High Range

- Simple installation
- Simultaneous transfer of user data
- Unaffected by contamination, weather and vibration
- For industrial indoor and outdoor applications
- No precise alignment necessary
- Maintenance- and wear-free

LPR®-1D is a radar-based sensor for measuring distances. It can operate over long ranges and is suitable for both indoor and outdoor applications. LPR®-1D devices are maintenance-free, weather resistant and impervious to dirt and vibrations.

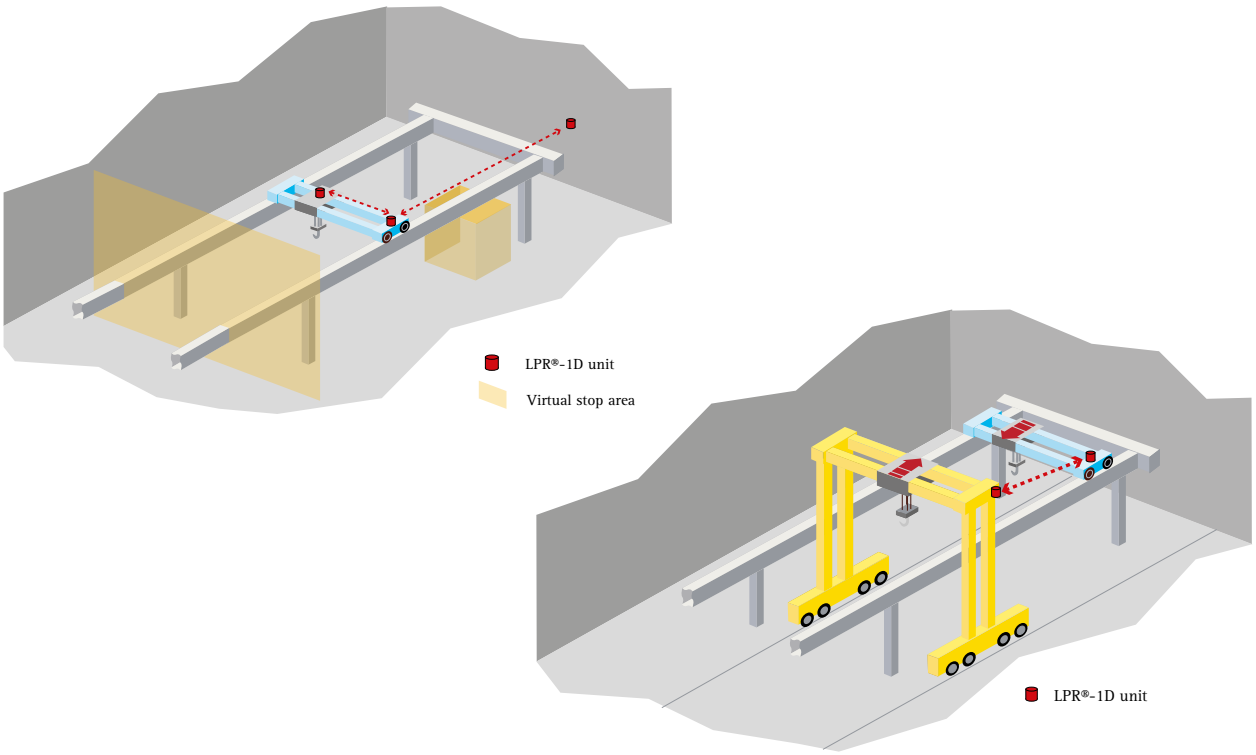
The sensor‘s modular design makes it extremely versatile. Typical applications include crane and rail-bound vehicle positioning, process optimization, automation and collision prevention. Apart from determining distance, the LPR®-1D also captures the relative speed between the objects being measured.

The LPR® measurement channel can be used to transmit additional reference data such as the z-position of the crane hook or the weight of the current load. The distance measurement is carried out between two sensor units. The measurement data, as well as the supplementary reference data, is made available on all of the connected LPR®-1D devices and is accessible via the respective interface.

LPR®-1D is simple to commission and operate, thanks to the SymeoWizard configuration software. For anti-collision applications, the software can be used to easily set up various triggers (warning/stop signals, restricted areas) and to configure the switch relays.

Symeo LPR®-1D uses the international license-free 5.8 GHz ISM-band. WiFi data networks can be operated in parallel at any time without the risk of interference.

Typical LPR®-1D applications



Technical Data: LPR®-1D	
Frequency range	5.725-5.875 GHz, ISM-band
Output power	max. 0.025 W EIRP
Measuring distance	up to 1.800 m *
Typical accuracy	up to ± 5 cm *
Update rate	up to 30 Hz
Voltage	10-36 V DC
Power consumption at max. update rate	8 W (continuous operation)
Ambient temperature	-40 °C to +75 °C
Protection class	up to IP65
Housing dimensions (LxWxH)	260 x 160 x 91 mm
Hardware interface	serial RS232, Ethernet TCP/IP, Profibus (optional), 7x dry contacts (optional, contact: max. 10 W, 50 V DC, max. 0.5 A)
Data interface	Symeo 1D binary protocol
Status indication	LED
User data transfer rate	8 bytes/cycle, up to 800 byte/s
External connector type	cable gland, internal terminal block
Antennas	up to 4 independent antennas, N-Connector
Compliance	CE, FCC, IC

** depending on the type of antenna and application conditions*

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