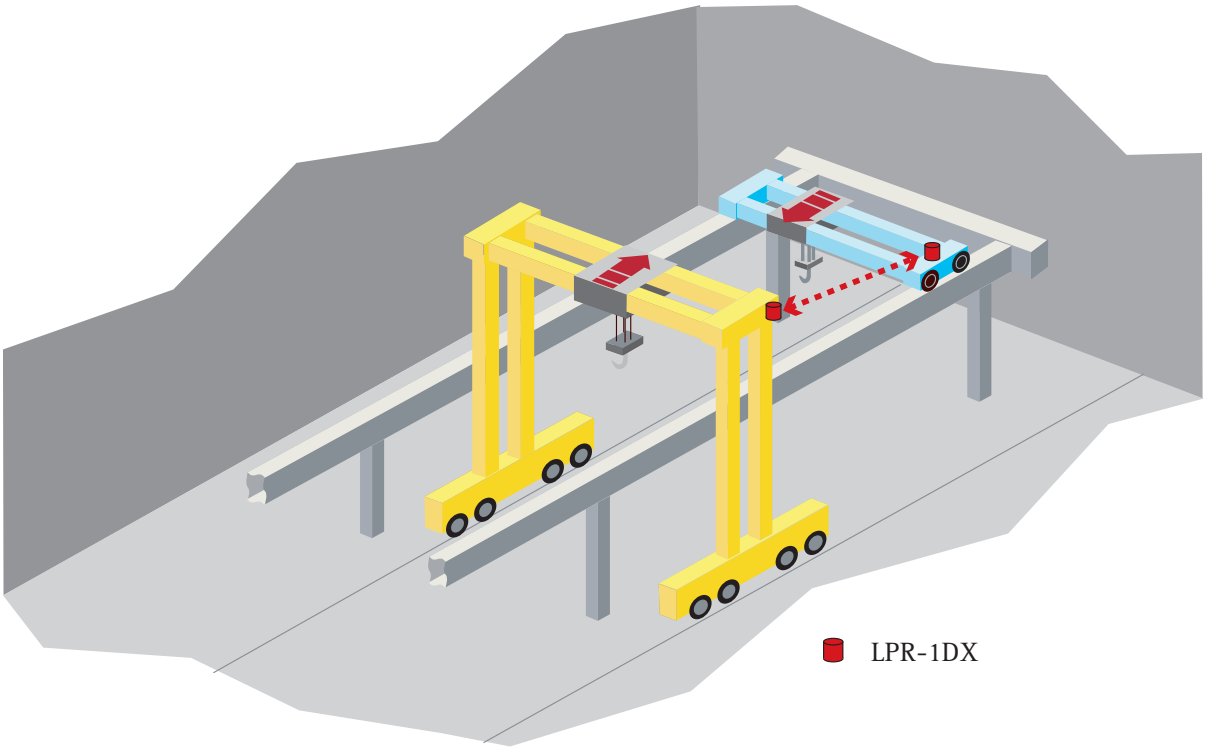
Distance Measurement and Anticollision

Data Sheet



LPR-1DX

Universal distance measurement

- Contact-less measurement via radio waves
- Simultaneous transfer of user data
- Unaffected by contamination, weather and vibration
- Usable indoors and outdoors
- No precise alignment necessary
- Easy to configure
- Redundant system set-up for high-security applications
- No additional operating or maintenance costs

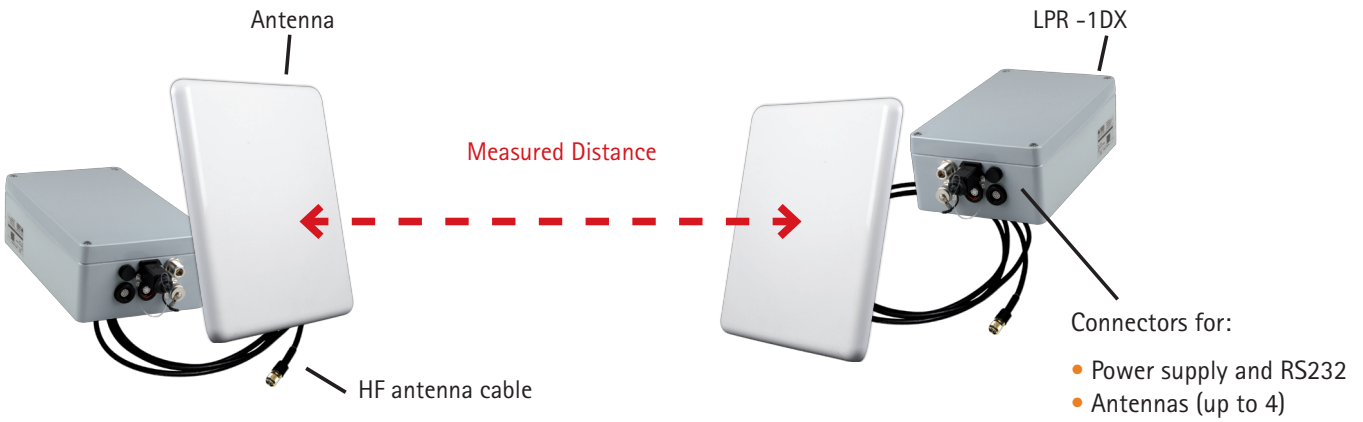
To avoid collisions or prohibited approaches, LPR sensors measure the distances between moving objects.

LPR also determines the relative speed between the two objects being measured. This can be used, for example, for varying shut-off points during an approach.

The measured values are available on both LPR-1DX units at the respective device interfaces.

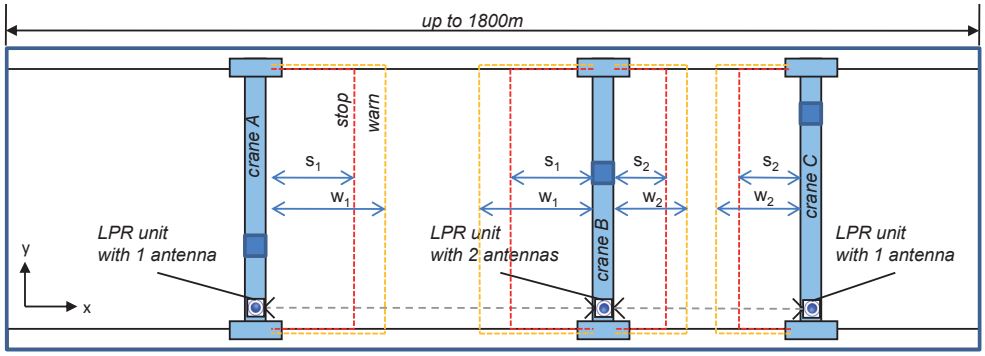
With the integrated SymeoBasic parameterization software, switching points can be easily determined based on position and speed. When the freely configurable switching criteria are reached, potential-free contacts can be opened via the optionally built-in switching relays based on the traveling direction.

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



Technical Data: LPR-1DX	
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 *
Repeat rate	Max. 30 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 dimensions (LxWxH); weight	260 x 160 x 91 mm; 2.5 kg
Hardware interface	Serial RS232, TCP/IP (optional), 7x dry contacts (optional, max. 60 VDC, max. 2 A)
Data interface	Symeo binary protocol, ASCII protocol optional with TCP/IP
User data transfer rate	8 bytes/cycle, up to 800 byte/s
External connector type	Plug
Antenna(s)	Up to 4 antennas, N-Connector
Compliance	CE mark

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



Relay	Functions for crane B
1	System Error
2	Distance to crane A measured between 2 active units
3	Distance to crane A < W_1. W_1 can be adjusted by the Symeo Set-up tool
4	Distance to crane A < S_1. Stop distance can be adjusted by the Symeo Set-up tool
5	Distance to crane C measured between 2 active units
6	Distance to crane C < W_2. W_2 can be adjusted by the Symeo Set-up tool
7	Distance to crane C < S_2. S_2 can be adjusted by the Symeo Set-up tool

Contacts 2 and 5 are normally open and will close if signal is active. All other signals are normally closed and will open on active signal. Relay functions as shown for crane B are default settings and can be programmed differently if required.

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