

LPR[®]-1D24

High-Precision Distance Measurement and Reliable Collision Avoidance

- Easy commissioning
- Exact position detection
- Contactless measurement by means of radio waves
- Unaffected by contamination, weather and vibration
- Usable indoors and outdoors
- Ideal for semi- and full-automatic machine movement control
- Maintenance-free, even in harsh environments

LPR[®]-1D24 is a highly precise radio sensor for distance measurement. One pair of sensors enables long range measurements with high accuracy. At the same time, further measurement data such as the crane hook height or the load status can be transferred via the wireless LPR[®] channel. In addition, the relative approach speed of the LPR[®] sensors is also available.

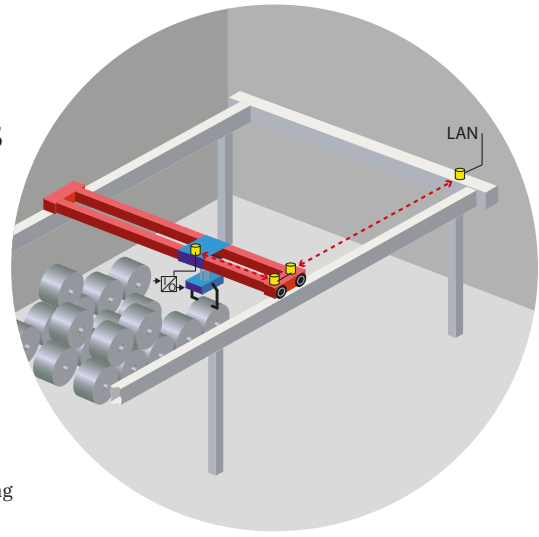
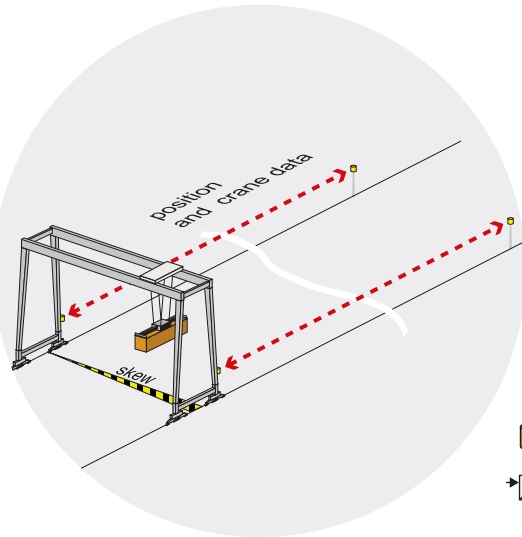
Distance and speed can be used for internal collision avoidance decisions at predetermined distance thresholds. Optional on-board relays will be activated. All data is made available at standard interfaces of each unit in real-time.



The multi-channel radio antenna is integrated in the robust housing. Thus, the devices are easy to install and operate. Rough alignment between the facing units is sufficient for precise measurements, even for very long distances. Via a user-friendly HTML interface, the units can be easily configured and put into operation. Installing special software is not necessary.

Symeo LPR[®] radio works highly reliable even under adverse environmental conditions. Interference with any WiFi equipment operating in parallel can be excluded at all times. LPR[®]-1D24 sensors are maintenance-free.

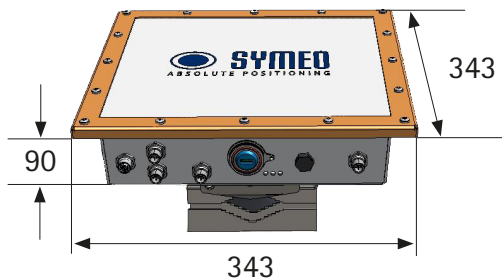
Paired sensors can be interconnected with other pairs, providing crane xy position with simultaneous measurement data transmission. All measurement data is available at each unit for further processing.

Typical LPR[®]-1D24 applications



-  LPR[®]-1D24
-  I/O Signal Handling

Dimensions:
(in mm)



Connectors:

- power supply
- Ethernet
- relay contacts (optional)
- Profibus (optional)
- waterproof connection for external USB stick for logging and monitoring

LED indicators:

- power / active measurement
- network
- application

Technical Data: LPR[®]-1D24

Frequency range	24-24.25 GHz
Measuring distance	up to 1.000 m *
Typical accuracy	up to ± 2.5 cm *
Repeat rate	30 Hz
Voltage	10-36 V DC
Power consumption	18 W
Ambient temperature	-40 °C to +75 °C
Protection class	IP65
Weight	3.8 kg
Hardware interface	Ethernet TCP/IP or UDP, Profinet (optional), Profibus (optional)
Data interface	Syмео LPR [®] -1D protocol
Status indication	LED
User data transfer rate	100 bytes/cycle, up to 3 Kbyte/s
External connector type	Ethernet housing connector, plug: M12 screw connections, USB
Antenna	integrated, multi-channel antenna diversity
Compliance	CE, FCC, IC

* depending on application conditions