WSNet
Roller Conveyor Sensor

SLR 100 **SLR 200**

WSNet Roller Conveyor Sensors of the SLR x00 line reliably detect the status of the conveyor occupancy and are extremely flexible thanks to the integrated WSNet radio module.

The freeing-up of a small load carrier (SLC) space is signalled wirelessly to the central gateway GLC 100E via WSNet and converted by the WSN AMS system into a material requirement.

Compared to other systems for occupancy detection, WSNet SLR sensors offer compelling advantages:

- real-time capturing and reporting of material requirements
- high scalability up to several thousand monitored containers
- 100% wireless, thus highly cost-effective installation and maintenance
- easy operation and connection to existing ERP systems

- interference-resistant and energy-efficient wireless technology
- high range up to 1,000 m within buildings
- Battery life up to 18 months
- Avoiding human failure by means of full automation

The future-oriented LoRa™[1] wireless technology of WSNet makes the known problems of WLAN-based systems forget. The SLR sensors do not occupy any IP addresses in the LAN's private address space. In addition, "dead spots" and unstable connections are now finally a thing of the past.

The optional dual AES 128 encryption meets the highest data security requirements.

The sophisticated mounting concept of the SLR sensors with carrier rails provides full compatibility with all conventional continuous rack systems for SLC,

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[1] LoRa™, LoRa™ Alliance and LoraWAN™ are registered exclusive trademarks of Semtech Corporation.

e.g. by SSI Schäfer, Bito, ITEM, Creform, META and Trilogiq.

Due to its robust and dust-tight housing, WSNet SLR sensors can even be used in harsh industrial environments.
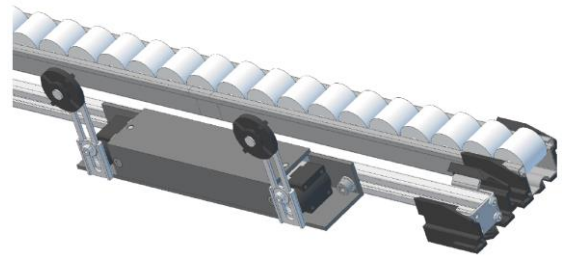
Functions

- Wireless notification of conveyor occupancy states
  - SLR 100: 1 seat
  - SLR 200: 2 adjacent seats
- Bidirectionality: receiving and sending radio telegrams
- Measurement and radio transmission of the battery charge state
- Optional: measurement and radio transmission of temperature and relative humidity
- Flexible carrier rail concept enables the fastest-possible conversion of through-flow shelves if required

Technical Specifications

- Main processor: STMicroelectronics STM32 ARM Cortex-M3 RISC MCU
- Clock rate: 32 MHz
- RAM: 384 KB FLASH
- Radio technology: LoRa LPWAN 868 MHz
- Integrated on-board antenna
- Transceiver Semtech SX1277
- Bandwidth: up to 500 kHz
- Data rate: up to 27 kbps
- Transmission power: <= +14 dBm
- Power consumption: max. 0.1 W

- achievable range up to 1,000 m (within buildings)
- ambient temperature range:
  - 0° C to + 55° C
- ambient rel. humidity:
  - 0 to 90 % (non-condensing)
- Industrial housing
  - Material: PVC, impact resistant
  - Dimensions: 260x42x32 mm
  - Carrier rails 600 ... 3600 mm
- Power Supply
  - 3,6 V lithium cell

Delivery Scope

- Roller track sensor with integrated WSNet radio module
- Lithium battery 3.6 V, ca. 3.6 Ah
- Installation Guide
- CE declaration of conformity

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