



WIRELESS CUSTOMER SURVEY BUTTONS (Loyalty Buttons)

L3 SERIES

Data Sheet

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Description

SensMax L3 series wireless customer survey buttons (loyalty buttons) are standalone, battery-powered devices designed to conduct customer surveys and measure satisfaction levels directly at customer touchpoints. The family includes standard models **SensMax L3 Pro**, **SensMax L3 LR**, and **SensMax L3 SLR**, as well as real-time versions **SensMax L3 LR TS** and **SensMax L3 SLR TS**.

The devices give customers the opportunity to express their opinion by selecting one of three buttons with emotional symbols (smileys): **Happy**, **Sad** (neutral/sad), and **Disappointed**.

The loyalty button is typically mounted on a specialized plastic stand (holder) featuring a printed question (e.g., “Rate our service” or “Rate the cleanliness of this room”). When any of the three buttons is pressed, the device registers the vote and saves it in its internal memory, after which statistics are automatically transmitted via wireless radio channel to the SensMax data collector (gateway).

Key Advantages:

- **Intelligent Spam Filter (for standard L3 models):** The built-in digital spam filter discards repetitive or rapid consecutive button presses (e.g., from children or accidental double clicks), ensuring statistics remain representative and clean. Real-time TS versions do not have a spam filter, as their primary task is to send each individual response instantly.
- **100% Wireless Operation:** Powered by 2 standard AA batteries, eliminating the need to lay cables. Battery life is up to 2 years.
- **Easy Installation:** The device can be mounted in a couple of minutes using double-sided tape or screws, or placed on a specialized desktop plastic holder.
- **Integration with People Counting System:** Survey data is transmitted to the same database and displayed in unified SensMax reports. This allows correlating the total number of visitors with the number of feedback responses and analyzing the share of satisfied customers out of the total traffic.

Modifications and Network Architecture

The SensMax L3 loyalty button family is divided into two groups based on the data transmission mode:

Standard L3 Series (Batch Transmission)

Accumulates survey data in internal memory and transmits it to the data collector every 20 minutes.

- **SensMax L3 (L3 Pro):** Operates on the 2.4 GHz frequency with a wireless range of up to 50 meters (in line of sight). Recommended for small offices and checkout areas.
- **SensMax L3 LR (Long Range):** Operates on the 868 MHz frequency with a wireless range of 150 to 250 meters. Optimal for supermarkets and retail halls.
- **SensMax L3 SLR (Super Long Range):** Operates on the 868 MHz frequency with a wireless range of up to 800 meters. Designed for large shopping malls and distributed locations.

L3 TS Series (Real-Time Transmission)

Transmits button presses instantly (in real time) or in 5-minute batches.

- **SensMax L3 LR TS:** Operates on the 868 MHz frequency with a wireless range of up to 150 m.
- **SensMax L3 SLR TS:** Operates on the 868 MHz frequency with a wireless range of up to 800 m.

Data Collection and Reporting Features

- **Integration with Visitor Traffic:** In the SensMax EasyReport software or the SensWeb cloud portal, loyalty data is synchronized with attendance charts. This allows calculating the customer loyalty index (e.g., NPS) by hours, days, and weeks.
- **Internal Memory for Reliability:**
 - ◆ Standard L3 models store backup data for **25 days** (daily totals of button presses for each smiley are saved).
 - ◆ L3 TS models store a detailed log of up to **1000 records**.
 - ◆ Data is not lost even during temporary network gateway disconnects or internet outages.

Applications

Checkout zones in retail stores, customer service areas in banks and post offices, check-in desks at airports, entrance/exit zones in shopping centers, washroom areas for cleaning quality assessment, smart buildings.

Scope of Delivery

The standard delivery set of SensMax loyalty buttons includes:

- Wireless L3 button unit — 1 pc.
- AA 1.5V alkaline batteries — 2 pcs.
- Double-sided tape for mounting — 1 pc.
- Desktop plastic holder-stand for a printed question sheet.

Model Comparison

Parameter	SensMax L3 (L3 Pro)	SensMax L3 LR	SensMax L3 SLR	SensMax L3 LR TS	SensMax L3 SLR TS
Operating Mode	Batch (every 20 min)			Real time / 5 min	
Operating Conditions	Indoor				
Radio Frequency	2.4 GHz	868 MHz			
Communication Range	Up to 50 m	Up to 250 m	Up to 800 m (1000 m)	Up to 150 m	Up to 800 m
Compatible Collectors	SMX PRO	SMX LR	SMX SLR	SMX LR TS	SMX SLR TS
Internal Memory	25 days (daily sum)			1000 records	
Number of Buttons	3 smileys				
Housing Material	ABS plastic				
Standard Color	White				
Protection Class (IP)	IP54				
Enclosure Dimensions	67×67×25 mm				
Power Source	2 AA batteries				
Battery Life	Up to 2 years				
Spam Filter	Yes			No (real-time transmission)	

Technical Specifications

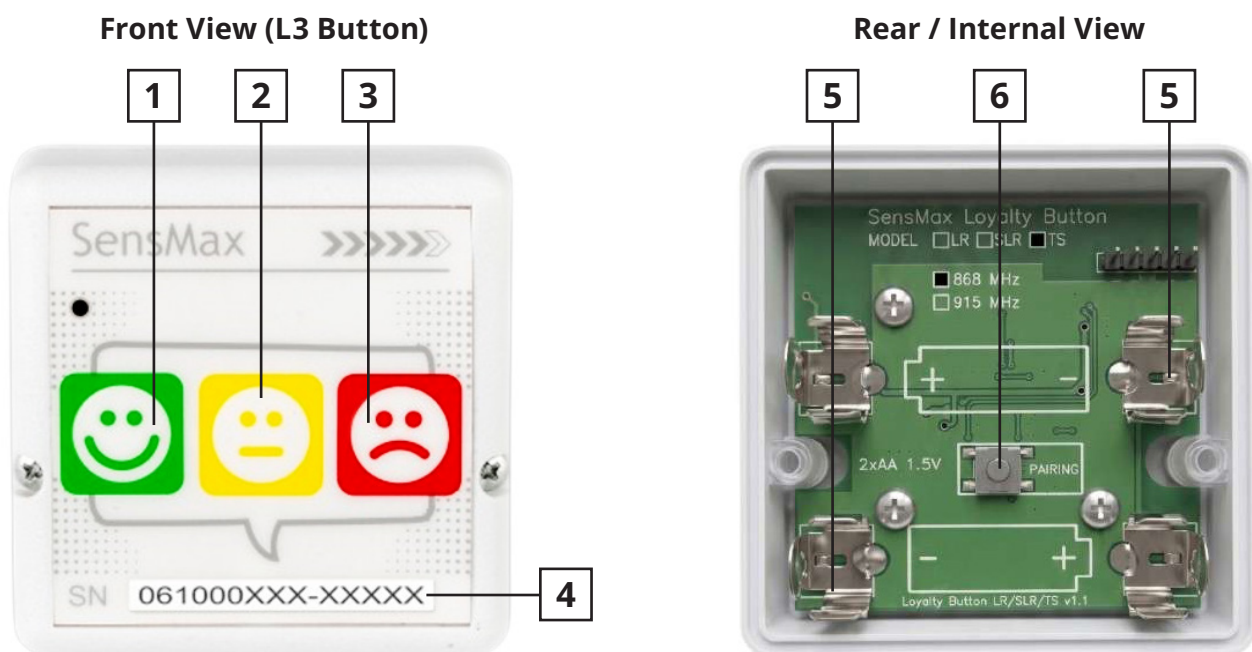
- **Operating Principle:** Pressing one of three physical buttons with emotional feedback.
- **Spam Filtering:** An intelligent digital filter ignores clicks made too rapidly in succession (available only in standard batch L3 versions, absent in real-time TS versions).
- **Serial Number Syntax:** Unique identifier starting with the prefix “06” (e.g., 060000123).
- **Operating Temperature:** 0°C to +55°C (for indoor use).
- **Enclosure Dimensions:** 67 × 67 × 25 mm.
- **Weight:** ~50 g (without batteries).

Recommendations for Battery Selection

To ensure stable button operation for up to 2 years, it is recommended to use new, high-quality 1.5V alkaline AA batteries.

Device Elements

The devices are equipped with three feedback buttons and an internal Pairing button for configuration.



- [1] “Green Smiley” button — Good (Happy)
- [2] “Yellow Smiley” button — Neutral / Bad (Sad)
- [3] “Red Smiley” button — Disappointed

- [4] Device serial number (starts with “06”)
- [5] Battery compartment (2x AA)
- [6] Pairing button

Supported Data Collectors and Gateways

The L3 button family requires a stationary data collector (gateway) to receive and forward responses:

For standard buttons (L3, L3 LR, L3 SLR):

- **SensMax SMX PRO Gateway (2.4 GHz):**
Serves up to 5 L3 (L3 Pro) buttons with a communication range of up to 50 meters.
- **SensMax SMX LR Gateway (868 MHz):**
Serves up to 30 L3 LR buttons with a communication range of 150-250 meters.
- **SensMax SMX SLR Gateway (868 MHz):**
Serves up to 30 L3 SLR buttons with a communication range of up to 800 meters.
- **Backward Compatibility:**
Standard buttons are also compatible with TCPIP (Pro/LR/SLR) and 3G (Pro/LR/SLR) collectors serving up to 5 (Pro) or 30 (LR/SLR) buttons per device.

For real-time buttons (L3 LR TS, L3 SLR TS):

- **SensMax SMX LR TS Gateway (868 MHz):**
Serves up to 20 TS loyalty buttons with a communication range of up to 150 meters.
- **SensMax SMX SLR TS Gateway (868 MHz):**
Serves up to 20 TS loyalty buttons with a communication range of up to 800 meters.

Physical Installation

- **Desktop Installation:**
The button unit is attached to the transparent plastic stand using double-sided tape, and the paper survey question sheet is inserted into the specialized holder on the stand.
- **Wall Installation:**
The button unit can be mounted on a wall or flat surface at visitors' arm level (typically 1.2-1.4 meters from the floor) using high-quality double-sided tape.

Commissioning and Pairing

Each L3 series loyalty button must be paired with its data collector before starting operation:

Manual Pairing Method (via physical buttons)

- 1. Turn on the gateway:** Connect the SensMax SMX data collector to the power source.
- 2. Power the sensors:** Insert 2 AA batteries into the L3 button.
- 3. Start search mode on the collector:**
 - ◆ Briefly press the pairing button on the gateway using a thin object.
 - ◆ The **Radio Link LED** on the collector will start flashing.
- 4. Start pairing on the button:**
 - ◆ Open the L3 button housing.
 - ◆ Press the internal **Pairing Button** once.
 - ◆ The device will send a pairing packet.
- 5. Pairing confirmation:**
 - ◆ The collector registers the device in memory and synchronizes the time.
 - ◆ The indicator on the gateway will return to normal operation mode.
 - ◆ The button will start recording statistics based on the precise synchronized clock.

Alternative Pairing Method (via Collector Web Interface)

If the buttons are already mounted or you want to avoid dismantling the housing to press the internal button, pairing can be performed programmatically via the SensMax SMX data collector web interface:

- 1. Connect to the collector web interface:** Open the built-in collector settings webpage in your browser.
- 2. Go to the device list:** On the Home tab, click Edit device list.
- 3. Add the device:** Click the add button and enter:
 - ◆ **Sensor Serial Number (Serial number):** printed on the device housing (starts with prefix "06").
 - ◆ **Security Code:** printed on the device housing next to the serial number.
- 4. Complete pairing:** Save settings. The collector will establish connection with the button via radio channel and synchronize the system time automatically. This can take from 5 to 20 minutes depending on the sensor type.

Testing Radio Communication Quality with the Collector

1. Place the collector in its permanent operating location.
2. Bring the button to the proposed mounting point.
3. **Start the communication test:**
 - ◆ Press the **Pairing** button on the board inside the open button housing.
 - ◆ The device will send a test radio packet and display the result:
 - **Connection OK:** The device will emit **two short beeps** (via gateway buzzer, PC, or internal LED).
 - **No Connection:** The device will emit **one low long beep**.

Time Synchronization

Time synchronization is performed completely automatically during pairing and during each communication session of the sensor with the gateway. The gateway reads the exact time (NTP) and transmits it to the devices.

Important: The loyalty button will not start collecting votes until the current date and time are set on the device via synchronization with the gateway. Initial time setup (synchronization) is a mandatory condition for starting operation.

Certification and Compliance

SensMax buttons are manufactured in accordance with strict international quality and environmental safety requirements:

- **CE (Conformité Européenne):** Compliance with EU safety, electromagnetic compatibility, and radio frequency spectrum standards.
- **RoHS (Restriction of Hazardous Substances):** Products are manufactured without the use of harmful and hazardous substances.
- **GDPR Compliant:** Full compliance with European privacy laws. The devices perform solely quantitative anonymized registration of votes (presses) without collecting any personal, biometric, or video data of customers.

Ordering Information

Customer Survey Buttons (Batch Transmission)

Model / Part Number	Description	Compatible Collector
SensMax L3 (L3 Pro)	Wireless customer survey button (2.4 GHz, up to 50 m)	SensMax SMX PRO
SensMax L3 LR	Wireless Long Range customer survey button (868 MHz, up to 250 m)	SensMax SMX LR
SensMax L3 SLR	Wireless Super Long Range customer survey button (868 MHz, up to 800 m)	SensMax SMX SLR

Customer Survey Buttons (Real-Time)

Model / Part Number	Description	Compatible Collector
SensMax L3 LR TS	Wireless real-time customer survey button (868 MHz, up to 150 m)	SensMax SMX LR TS
SensMax L3 SLR TS	Wireless Super Long Range real-time customer survey button (868 MHz, up to 800 m)	SensMax SMX SLR TS

Data Collectors (Gateways)

Model / Part Number	Description	Compatible Collector
SensMax SMX PRO	Wireless data collector 2.4 GHz (Ethernet/Wi-Fi AP)	SensMax L3 Pro
SensMax SMX LR	Wireless Long Range data collector 868 MHz (Ethernet/Wi-Fi AP)	SensMax L3 LR
SensMax SMX SLR	Wireless Super Long Range data collector 868 MHz (Ethernet/Wi-Fi AP)	SensMax L3 SLR
SensMax SMX LR TS	Wireless real-time data collector 868 MHz (Ethernet/Wi-Fi AP)	SensMax L3 LR TS
SensMax SMX SLR TS	Wireless Super Long Range real-time data collector (Ethernet/Wi-Fi AP)	SensMax L3 SLR TS

Customer Survey Buttons (Real-Time)

Model / Part Number	Description	Compatible Collector
SensMax L3 Holder	Desktop holder-stand for the button and survey form	All customer survey buttons L3



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