HARDWARIO STICKER

Product Name: STICKER

Power Type: 2 x AA Batteries

Manufacturer: HARDWARIO a.s.

Product Type: Small Low-Power IoT LoRaWAN sensor

SERIES OVERVIEW

HARDWARIO STICKER is a state-of-the-art wireless sensor designed for diverse environmental monitoring needs. This compact device excels in gathering data on temperature, humidity, motion, and other environmental parameters. It communicates wirelessly using LoRaWAN, providing long-range, low-power data transmission ideal for IoT deployments.

One of the standout features of the STICKER is its exceptionally low power consumption, enabling it to operate for at least one year on two standard AA batteries. The device's robust firmware, built on the Zephyr OS SDK, ensures reliable performance and offers open-source flexibility for custom application development. Users can tailor the device's functionality to specific needs, enhancing its adaptability.

The STICKER's key features include an integrated PIR motion sensor, NFC readiness, and support for industrial logic inputs. The PIR sensor allows for precise motion detection, making it ideal for security and occupancy monitoring. Additionally, it supports up to 2 digital inputs for 24V industrial logic and voltage measurement up to 30V, broadening its application range to industrial environments.

STICKER typical use case:

- Track and maintain optimal temperature conditions in various rooms for comfort and energy efficiency.
- Ensure precise temperature control and monitoring during critical manufacturing operations.
- Maintain appropriate storage conditions by monitoring temperature in warehouses to protect stored goods.
- Monitor and regulate temperature to create ideal growing conditions for plants in greenhouses.
- Integrate with PLCs or standalone sensors to gather essential data for manufacturing and industrial processes.

KEY FEATURES

Wireless Connectivity

- Supports LoRaWAN for efficient wireless data transmission.

Long Battery Life

- Designed for low energy consumption, ensuring at least one year of operation on standard AA batteries.

Compact Size

- Miniature dimensions for easy installation and use.

Integrated PIR Motion Sensor

- Detects motion with an integrated PIR sensor up to 4 meters.

NFC Ready

- Connect to the device using an NFC-enabled smartphone.

Industrial Logic Inputs

- Supports up to 2 digital inputs for 24V industrial logic.

Voltage Measurement

- Measure up to 2 channels of voltage up to 30V.

Open-source SDK

- Built on the Zephyr OS SDK, can be easy customized.

VARIANTS

STICKER Clime

STICKER Clime measures temperature, humidity and light intensity. Includes an accelerometer for motion detection.

The hardware of this variant consists of the following ordering codes:

- STICKER-M - Standard mainboard
- STICKER-NFC - NFC board
- ENC-STICKER-CLIME - Enclosure with two light pipes and perforation
- 2x ENERGIZER-AA-1.5V-LITHIUM

STICKER Input 1

STICKER Input 1 supports 1-Wire sensors, analog and digital input measurement and Hall sensor for magnetic field detection. Includes an accelerometer for motion detection and measures inside temperature and humidity.

The hardware of this variant consists of the following ordering codes:

- STICKER-M - Standard mainboard
- STICKER-NFC-INPUT - NFC board with connector
- ENC-STICKER-INPUT-1 - Enclosure with light pipe and cable gland
- 2x ENERGIZER-AA-1.5V-LITHIUM

STICKER Input 2

STICKER Input 2 supports two 1-Wire sensors, two analog and two digital input measurement and Hall sensor for magnetic field detection. Includes an accelerometer for motion detection and measures inside temperature and humidity.

The hardware of this variant consists of the following ordering codes:

- STICKER-M - Standard mainboard
- STICKER-NFC-INPUT - NFC board with connector
- ENC-STICKER-INPUT-2 - Enclosure with light pipe and two cable glands
- 2x ENERGIZER-AA-1.5V-LITHIUM

STICKER Motion

STICKER Motion features an integrated PIR motion sensor. Detects movement within a 4 m range and a viewing angle of at least 50°. Includes an accelerometer for device motion detection and measures temperature, humidity and light.

The hardware of this variant consists of the following ordering codes:

- STICKER-M - Standard mainboard
- STICKER-NFC - NFC board
- PYQ-1648-7053 - PIR sensor
- ENC-STICKER-MOTION - Enclosure with two light pipes, PIR hole and perforation
- 2x ENERGIZER-AA-1.5V-LITHIUM

TECHNICAL SPECIFICATION

Structure	
Enclosure material	ABS
Dimension	91×36.5×33.3 mm
Power	
Nominal cell voltage	1.5 V
Nominal battery capacity	3000 mAh
Operating voltage range	1.8 V to 3.6 V
Idle power consumption	< 80 µA
Peak power consumption	< 100 mA
Environment	
Operating temperature	-30 °C to +70 °C
Storage temperature	-40 °C to +85 °C
Enclosure protection	IP40
Sensors	
Integrated thermometer	
Measurement range	-40 °C to +105 °C
Measurement accuracy	±0,2 % (0 °C to 65 °C)
Integrated hygrometer	
Measurement range	0 % to 100 %
Measurement accuracy	±2 % (from 10 % to 90 %)
PIR	
Detection range	4 m
Viewing angle	≥ 50 °