



## Overview

- HashSense is an industrial sensor data collector, appropriate for general IIOT applications. It features 8 protected analog inputs - 4 for 4-20mA signals 4 for 0-10V - making it suitable for a wide range of traditional industrial sensors;
- The two digital inputs and an RS485/Modbus channel enable communication with any PLC, allowing the addition of IIOT functionality to existing equipment;
- Two open-drain outputs can be used to activate loads such as lights, sirens or any load connected via a relay.
- The dual band Wi-Fi ensures fast and reliable connections and can be used to facilitate on-site configuration;
- All sensor interfaces are electrically isolated and protected, ensuring safe operation even in harsh environments;
- 13 RGB LEDs serve as indicators of sensor operation and allow for easy on-site debugging.

## Mechanical

Dimensions (Width x Length x Height)	95 x 126 x 40 mm
Weight	0.260 kg
Enclosure material	ABS
Mounting type	DIN Rail
Protection class	IP04
Terminal connections	Screw terminal - Accepts max. 1 mm <sup>2</sup> wire

## Electrical

Power supply	100 - 240 V AC
Power consumption (standby)	~5 W max (40 mA @ 127 V)
Power consumption (all inputs connected)	~12 W max (100 mA @ 127 V)
Power connector	Screw terminal - Accepts max. 2,5mm <sup>2</sup> wires

## Hardware Specs

Processor	ARM9 @ 533 MHz
RAM	64 MB SDRAM
Operating system	HashSenseOS (GNU/Linux based)
USB Connectivity	USB 2.0 Host
<b>Wi-Fi</b>	
Frequencies	2.4 and 5 GHz
Data rate	48 Mbps
Standard	802.11a/b/g/n/ac

## Inputs

<b>4...20mA Analog</b>	
Inputs channels	4 - A0, A1, A2 and A3
Max current	25 mA $\pm$ 2 mA
Protection	Overcurrent & Overvoltage
Sensor detection	Yes
<b>0...10V Analog</b>	
Inputs channels	4 - A4, A5, A6 and A7
Max voltage	13.5 V $\pm$ 0.2 V
Protection	Overvoltage
Sensor detection	No
<b>0...24V Digital</b>	
Inputs channels	2 - DI0 and DI1
Max voltage	26.0 V $\pm$ 0.2 V
Min high level voltage	10.0 V $\pm$ 0.2 V
Max low level voltage	3.8 V $\pm$ 0.2 V
Protection	Overvoltage
<b>RS485/Modbus</b>	
Channels	1 - A / B - Double terminals for daisy chaining
Termination	120 ohms
Max speed	500 kbps
Standards	NSI TIA/EIA RS-485-A and ISO 8482: 1987(E)

## Outputs

Type	Open drain - PWM capable
Output channels	2 - DO0 and DO1
Max current	3 A
Max load voltage	24 V
Protection	Freewheel diode