

# SON-104 / SON-204

## Features

- Measures any parameters via **4-20mA interface**
- Communicates through Internet
  - SON-104: Ethernet Connection
  - SON-204: WiFi Connection
- User-Friendly Installation and Configuration
- Automatic Firmware Update
- Low cost
- Reliable

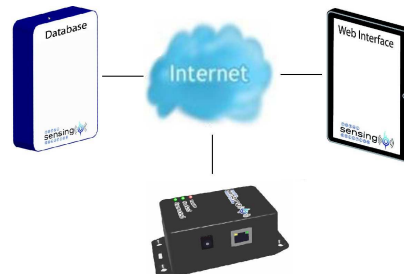
## Applications

- Measure oven temperature with thermocouple
- Measure vibration with accelerometer
- Measure acidity (pH)
- Measure fluid flow



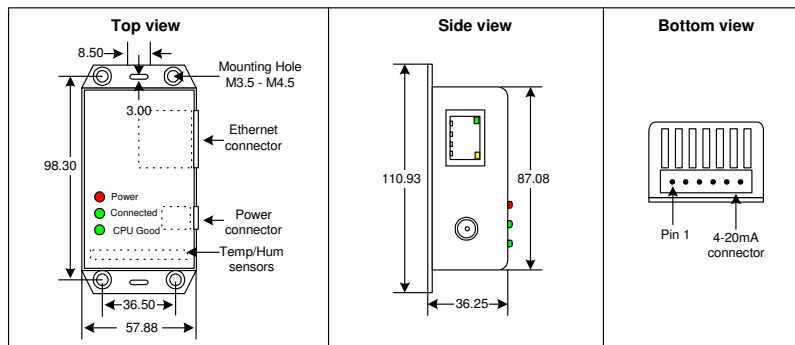
## Overview

The SON-104/SON-204 measures any parameters via two 4-20mA interfaces. It is compatible with many 4-20mA interface kinds and voltage. It offers a high precision and reliability. Its installation is easy requiring only an Internet connection and an electric outlet. The 4-20mA protocol is well known in the industrial domain. There are many sensors compatible with this interface.



The data sampled by the SON-104/SON-204 unit is sent to the *Total Sensing Solution* (TSS) database server. The TSS is a complete monitoring system that allows the user to archive data, configure the SON units to send alarms and view real-time and historic values of the room being monitored. It presents the data on a user-friendly web interface. To know more about the TSS system and test it, please consult TSS website: [www.sysacom.com/tss](http://www.sysacom.com/tss).

## Mechanical



(Unit: mm)

## Specifications

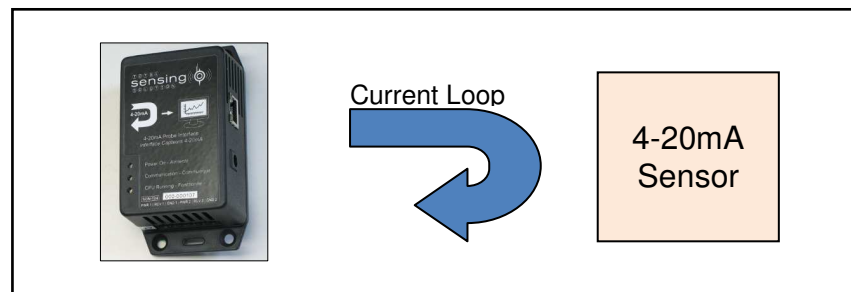
	SON-104	SON-204
<b>Performance</b>		
Baud Rate (Mbit/sec)	up to 100	up to 54
Reading Error (%)	+/- 0.2	
4-20mA Voltage Output	12V or 24V	
4-20mA Interface	2 or 3 wires	
4-20mA Connector Pitch (mm)	5.08	
<b>Environment</b>		
Operating Temperature (°C)	-20 to 50	
Operating Humidity (%)	0 to 100	
<b>Electrical</b>		
Supply Voltage (Vdc)	12	
Supply Power (W)	<2	
Plug Diameter (mm)	2.1	
<b>Physical</b>		
Size (in)	4.368 x 2.279 x 1.427	
(mm)	110.93 x 57.88 x 36.25	
Weight (gram)	120	
(pound)	0.26	

<b>Connectors</b>			
Pin	Power	Ethernet	4-20mA
1		TX+	PWR 1
2		TX-	RCV 1
3		RX+	GND 1
4		GND	PWR 2
5		GND	RCV 2
6		RX-	GND 2
7		GND	
8		GND	
Center	12Vdc		
Case	COM		

## Principles of Operation

The SON-104/SON-204 unit produces readings of both 4-20mA interfaces at uniform intervals: the interval rate is selected by the user through the Graphical User Interface accessed on the secure *Sysacom*. The analog to digital conversion is carried out by the unit itself and has a resolution of 16-bit. Next, the read values are transmitted to the database, thanks to the unit's Ethernet or WiFi connection. The protocols used to package the delivery of them are MySQL and TCP/IP. The TCP/IP assures that the Total Sensing Solution is a reliable and dependent service.

There are some interface types of 4-20mA current loop: 2-wires, 3-wires and 4-wires. SON-104/SON-204 is compatible with all of these types. Furthermore, there are two available voltage outputs: 12V or 24V.



## Ordering Information

Part	Communication Link	Temperature Range
SON-104-VV	Ethernet (IEEE - 802.3)	-20°C ~ 50°C
SON-204-VV	WiFi (IEEE - 802.11b/g/n)	-20°C ~ 50°C

VV: 4-20mA power supply is 12V or 24V.

Units are ROHS compliant.