

Model WSN1000

Wireless Sensor Network Monitors



Description

The model WSN1000 is developed as a monitor for a wireless sensor network (WSN) system. 1 monitor WSN1000 can work with up to 16 wireless sensors to constitute an independent WSN system.

The monitor communicates with the wireless sensors via 2.4GHz RF signal. The communication distance can reach around 100m through open space.

In one WSN system, the monitor reads every wireless sensor at pre-defined signal reading rate, e.g., once per 15 seconds depending on the application.

On the WSN1000, there are 16 multi-color LED's. Every LED is assigned to a particular wireless sensor. The monitor uses both the LED lighting in three different colors (green, red, and orange) and the short beeping sounds at three different frequencies to demonstrate three statuses of the wireless senso – the green light and its corresponding beeping sound refer to fastened straps, the red light and its corresponding sound refer to loosened straps, and the orange light and its corresponding sound refer to an error status (e.g.; low battery, disconnection, ...).

The monitor has one press button to set thresholds of the sensors to define the load status of the sensor.

The WSN1000 is capable to have different customized modifications. For instance, it can connect to more wireless sensors on request.



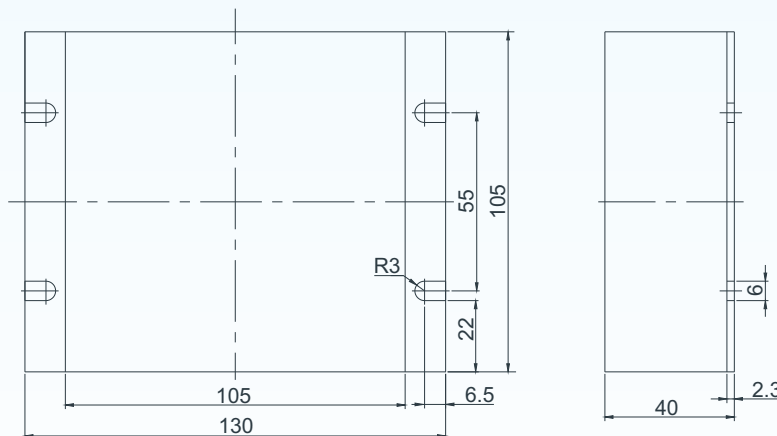
Features

- Up to 16 wireless sensor connections, more connections available on request.
- Indicate status of each wireless sensor with a multi-color LED.
- Concise design: Reset all sensors with one press button.
- Setup an independent WSN system without any software.

Applications

- Independent WSN system
- Cargo safety system for trucks
- Liquid level monitoring system

Dimensions



Note: All dimensions are in mm.

BCM SENSOR TECHNOLOGIES BVBA

Model WSN1000

Wireless Sensor Network Monitors



Technical Data

Parameters	Units	Specifications	Notes
number of sensor connection	pieces	1, ..., 16	1
communication signal		RF 2.4GHz	2
communication distance	m	up to 100 through open space	
sensor signal reading rate		up to read 16 sensors 3 times per second, adjustable to fit applications.	3
color of LED light		green, red, and orange	4
alarm		short beeping sound of three different frequency	
supply voltage	Vdc	10, ..., 30	
operating temperature range	°C	-20~+40	
mechanical interface		4 x R3mm through holes	
electrical interface		Ø5mm detachable 2-core cable, 1m length (standard);	
		Ø5mm detachable 1m cable with ISO 4165 connector	
housing material		aluminum alloy	
environment protection		IP64	
weight	gram	~450 without cable	

General test conditions: 25°C, 50%RH, 12Vdc supply voltage.

- Notes:
1. More sensor connections available on request. Consult BCM SENSOR.
 2. The integrated 2.4GHz RF module and antenna have regulatory approvals from modular devices in United States, Canada, and European countries.
 3. To be defined by customer.
 4. The definition of each color needs to be defined by customer.

The listed specifications and dimensions are subject to change without prior notice.

BCM SENSOR TECHNOLOGIES BVBA

Model WSN1000 Wireless Sensor Network Monitors



Ordering Information

position (pos.) 1: model					
WSN1000					
pos. 2: number of sensor connection					
1	...	16			
pos. 3: wireless sensor model					
5716		SR5716			
Note: Other model may be used according to the application.					
pos. 4: mechanical interface					
4xR3TH: 4 x R3mm through holes					
pos. 5: electrical interface					
5/2/1m: Ø5mm detachable 2-core cable, 1m# length (standard)					
5/2/1mWithISO4165Connector: Ø5mm detachable 1m# cable with ISO 4165 connector					
#: Cable length can be customized on request.					
pos. 6: customized specifications					
“(*)” is necessary only if any customized parameter is required, otherwise it is neglectable.					
pos.1	pos. 2	pos. 3	pos. 4	pos. 5	pos. 6

Examples of Ordering Code

- standard monitor:

WSN1000-16-5716-4xR3TH-5/2/1mWithISO4165Connector



BCM SENSOR TECHNOLOGIES BVBA

