

iWSN-3020-TC-BT-IP65

iWSN temperature measurement module with two thermocouple Thermocouple input channels (Asia Only)

Features

- Two K, R, S, C, B, N, T, E type thermocouple input channels
- Uses 433 MHz radio frequency for communication
- 16 RF Channels and 4 Group ID, consist of maximum 64 RF sub-networks
- Built-in disposable lithium battery
- Supports wall-mount or DIN-Rail or magnet adsorption for installation

Introduction

iWSN-3020-TC-BT-IP65 is wireless temperature sensing modules in the iWSN series. It provides IP65 grade of dust-proof and water-proof, 433 MHz wireless communication interface, and supports 2-channel K, R, S, C, B, N, T, E type thermocouple temperature measurement. It will actively periodically response the measured temperature to the iWSN wireless data concentrator. This module has a built-in disposable lithium batteries for power supply, additional power supply is not required. It is suitable for environments with extremely thick dust, no power supply, and difficult wiring restrictions. That is contribute to real wireless deployment. Furthermore, this module can set 16 wireless channels and 4 Group ID, which is helpful for distinguishing and controlling 433 MHz wireless networks. Users only need to uses the DIP switch for configuration to complete the settings, that let the modules to be adjusted and maintained even simpler.

Applications



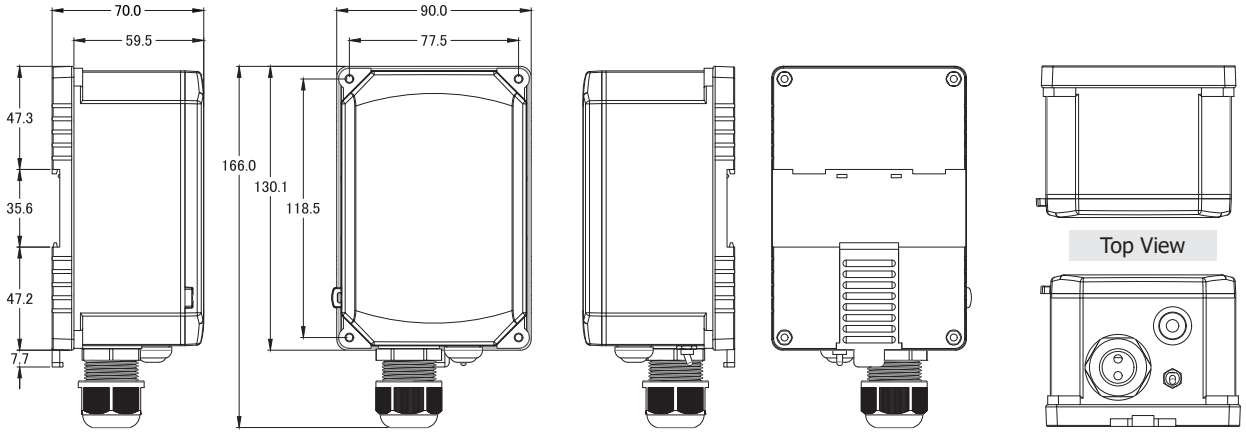
System Specifications

Model	iWSN-3020-TC-BT-IP65
LED Indicators	
System LED Indicator	1 x STA
Temperature Measurement	
Sensor Type	Thermocouple: K, R, S, C, B, N, T, E type
Channels	2
Range	K, R, S, C, N, T, E type: above 0 °C B type: above 250 °C
Accuracy	>=0°C, ±0.5% FSR < 0°C, ±1.2% FSR, T type: 2.5% FSR
RF	
Channels	0 ~ 15 configured by DIP switch
Group ID	0 ~ 3 configured by DIP switch
Radio Frequency	433MHz
Transmission Distance (LoS)	100 m
Node ID	1 ~ 31 configured by DIP switch

Model	iWSN-3020-TC-BT-IP65
Working Duty	1 sec, 10 sec, 30 sec and 60 sec (configured by DIP switch)
Power	
Battery	CR123A (3.0 V, 1700mAh) x 2 Battery Life: 1 year (Working Duty: 10 sec) 3 years (Working Duty: 30 sec) 5 years (Working Duty: 60 sec)
Mechanical	
Dimensions (mm)	95 x 165 x 75 (W x L x H)
Installation	Wall-mount or DIN-Rail or magnet adsorption
Ingress Protection Rating	IP65
Environment	
Operating Temperature	0 °C ~ +60 °C
Storage Temperature	-20 °C ~ +45 °C
Humidity	20 ~ 65% RH, Non-condensing

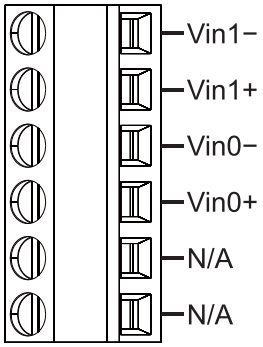
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Dimensions (Units: mm)



Left View | Front View | Right View | Back View | Bottom View

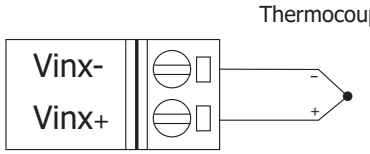
Pin Assignments



PIN	Name	Instructions
6	Vin1-	Thermocouple input channel 1
5	Vin1+	
4	Vin0-	Thermocouple input channel 0
3	Vin0+	
2	N/A	Reserved
1	N/A	

Wire Connections

Thermocouple input channel



Ordering Information

iWSN-3020-TC-BT-IP65 CR	iWSN temperature measurement module with two thermocouple input channels (RoHS) (Asia Only)

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