



ZB-2018-T

Wireless 8-ch Analog Input Module with High Voltage Protection

Introduction

The ZB-2018-T is an analog input module with an extremely excellent protection mechanism where overvoltage protection is up to 240 V_{rms}. Its input type includes current, voltage as well as thermocouple. It is much more suitable for critically harsh environment! Moreover, a newly-added feature for open thermocouple detection makes ZB-2018-T more sweet than ever. ZB-2018-T also has qualification for 4 kV ESD protection and 3000 V_{oc} intra-module isolation. Users can be easy to configure the module address, Protocol, Checksum, ZB-PID, ZB-ch and type code by rotary and DIP switch.

I/O Specifications

Analog Input	
Input Channel	8 Differential
Input Type	+/-15 mV, +/-50 mV, +/-100 mV, +/-500 mV, +/-1V, +/-2.5V, +/-20 mA, 0 ~ 20 mA, 4 ~ 20 mA (Requires Optional External 125 Ω Resistor). Thermocouple (J, K, T, E, R, S, B, N, C, L, M, LDIN43710)
Resolution	16-bit
Sampling Rate	10 Samples/Sec. (Total)
Accuracy	+/-0.1% of FSR
-3dB Bandwidth	15.7 Hz
Zero Drift	+/-10 μV/°C
Span Drift	+/-25 ppm/°C
Common Mode Rejection	86 dB min.
Normal Mode Rejection	100 dB
Input Impedance	>400 kΩ
Open Thermocouple Detection	Yes
Overvoltage Protection	240 V _{rms}
Intra-module Isolated, Field-to-Logic	3000 V _{oc}
ESD Protection	+/-4 kV Contact for Each Channel

Thermocouple Type

Type Cod	Temperature Range	Type Cod	Temperature Range
J	-210 °C ~ +760 °C	B	0 °C ~ +1820 °C
K	-270 °C ~ +1372 °C	N	-270 °C ~ +1300 °C
T	-270 °C ~ +400 °C	C	0 °C ~ +2320 °C
E	-270 °C ~ +1000 °C	L	-200 °C ~ +800 °C
R	0 °C ~ +1768 °C	M	-200 °C ~ +100 °C
S	0 °C ~ +1768 °C	L2 (DIN43710)	-200 °C ~ +900 °C

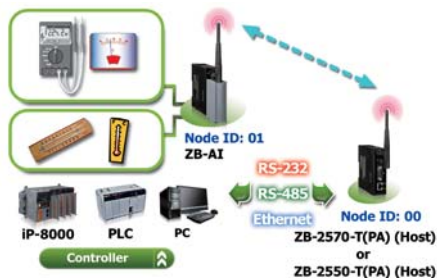
Features

- ISM 2.4 GHz Operating Frequency
- Fully Compliant 2.4 G IEEE802.15.4/ZigBee Specifications
- Wireless Transmission Range up to 700 m (PA-Version)
- Wireless Transmission Range up to 100 m (None/T-Version)
- GUI Configuration Software (Windows Version)
- 8 Differential AI (TC, mV, V)
- Individual Channel Configuration
- Open Thermocouple Detection
- Overvoltage Protection is up to 240 V_{rms}
- DIN-Rail Mounting



Applications

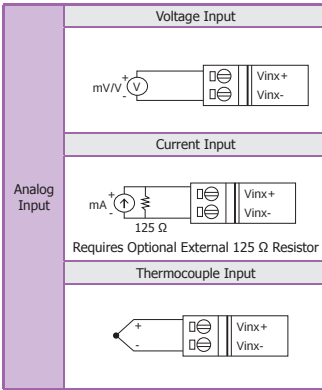
Building Automation, Factory Automation, Machine Automation, Remote Maintenance, Remote diagnosis, Testing Equipment.



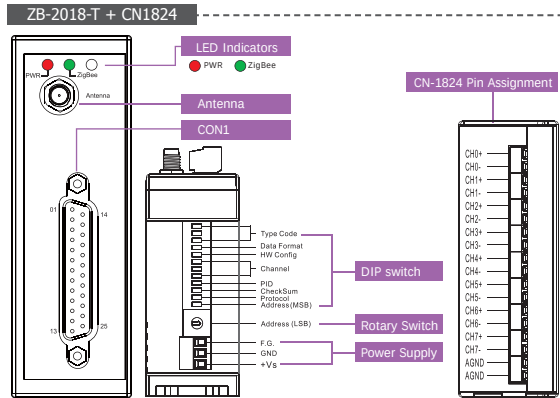
System Specifications

Communication Interface	
Wireless	ZigBee, IEEE 802.15.4 Standard
Antenna	2.4 GHz-3 dBi Omni-Directional antenna
Protocols	Supports DCON and Modbus RTU Protocols
Hot Swap	By Rotary and DIP switch
LED Indicators	
Power	1 LED, red
ZigBee Communication	1 LED, green
Power	
Power Consumption	0.88 W max.
Mechanical	
Flammability	Fire Retardant Materials (UL94-V0 Level)
Dimensions (W x L x H)	33 mm x 87 mm x 107 mm
Installation	DIN-Rail
Environment	
Operating Temperature	-25 °C ~ +75 °C
Storage Temperature	-30 °C ~ +80 °C
Humidity	10 ~ 90% RH, Non-condensing

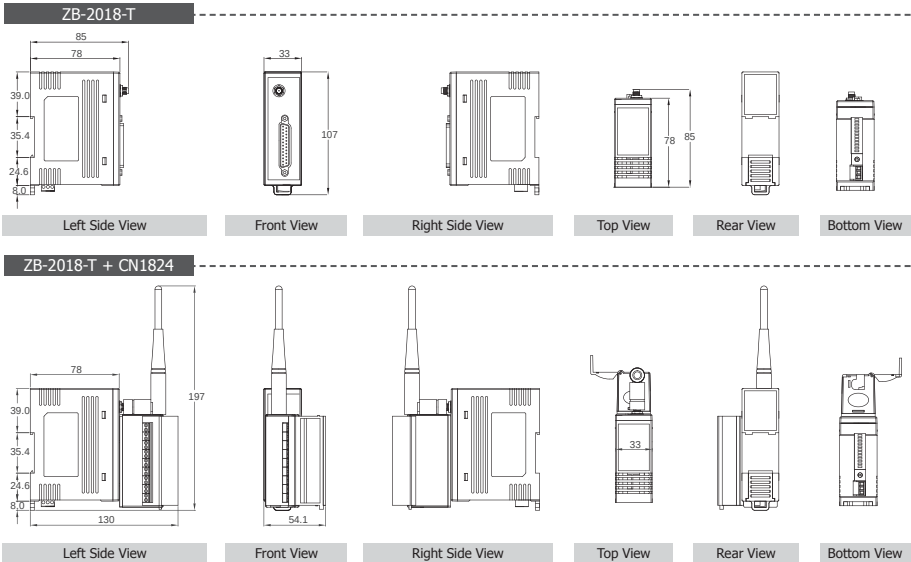
Wiring



Appearance



Dimensions (Units: mm)



Ordering Information

ZB-2018-T CR	Wireless 8-ch Analog Input Module with High Voltage Protection (RoHS)
Important Note: The ZigBee Data Acquisition modules need a ZigBee host converter to coordinate the data transmission route. Please remember to order a ZB-2550, ZB-2550-T, ZB-2550PA, ZB-2570, ZB-2570-T or ZB-2570PA ZigBee host converter when you purchase the ZigBee Data Acquisition products.	

Accessories

MDR-20-24	24 Voc/1.0 A, 24 W Power Supply with DIN-Rail Mounting
ZB-2510 CR	ZigBee Repeater (RoHS)
ZB-2510P CR	High Power Amplifier ZigBee Repeater (RoHS)
ZB-2550 CR	RS-485/RS-232 to ZigBee Converter (Host) (RoHS)
ZB-2550P CR	RS-485/RS-232 to High Power Amplifier ZigBee Converter (Host) (RoHS)
ZB-2570 CR	Ethernet/RS-485/RS-232 to ZigBee Converter (Host) (RoHS)
ZB-2570P CR	Ethernet/RS-485/RS-232 to High Power Amplifier ZigBee Converter (Host) (RoHS)