ZB-2018-T

Wireless 8-ch Analog Input Module with High Voltage Protection

Features

- ISM 2.4 GHz Operating Frequency
- Fully Compliant 2.4 G IEEE802.15.4/ZigBee Specifications
- Wireless Transmission Range up to 700 m (ZB-2550P/ZB-2570P)
- Wireless Transmission Range up to 100 m (ZB-2550/ZB-2570)
- 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 Mount

Introduction

The ZB-2018-T 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_{DC} 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.

Applications

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

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 Vdc
ESD Protection	+/-4 kV Contact for each channel

System Specifications

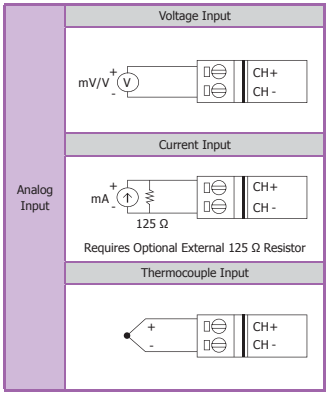
Communication Interface	
Wireless	ZigBee, IEEE 802.15.4 Standard
Antenna	2.4 GHz-3 dBi Omni-Directional antenna
Protocols	Supports DCON and Modbus RTU Protocols
Hot Swap	By Rotary and DIP switch
LED Indicators	
Power	1 LED, red
ZigBee Communication	1 LED, green
Power	
Power Consumption	0.88 W max.
Mechanical	
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

Thermocouple Type

Type Cod	Temperature Range
J	-210 °C ~ +760 °C
K	-270 °C ~ +1372 °C
T	-270 °C ~ +400 °C
E	-270 °C ~ +1000 °C
R	0 °C ~ +1768 °C
S	0 °C ~ +1768 °C

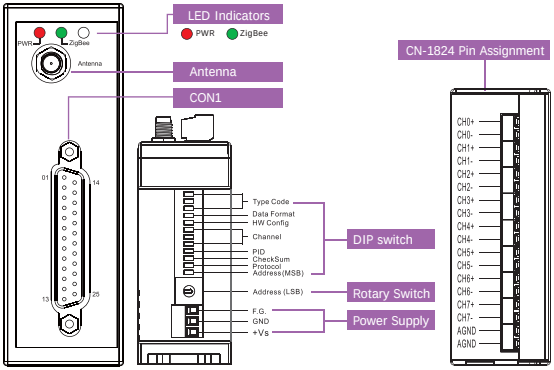
Type Cod	Temperature Range
B	0 °C ~ +1820 °C
N	-270 °C ~ +1300 °C
C	0 °C ~ +2320 °C
L	-200 °C ~ +800 °C
M	-200 °C ~ +100 °C
L2 (DIN43710)	-200 °C ~ +900 °C

Wiring



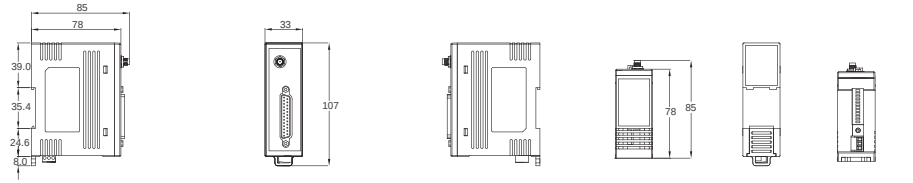
Appearance

ZB-2018-T + CN1824



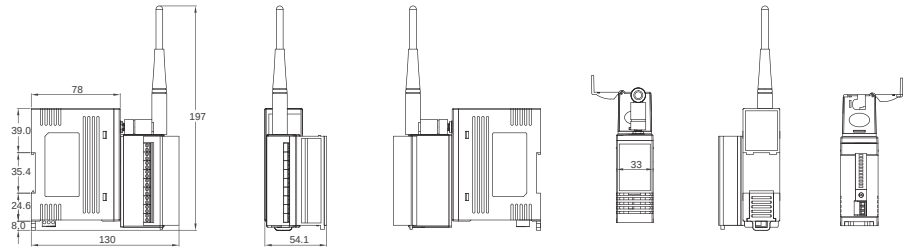
Dimensions (Unit: mm)

ZB-2018-T



Left Side View | Front View | Right Side View | Top View | Back View | Bottom View

ZB-2018-T + CN1824



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Ordering Information

ZB-2018-T CR	Wireless 8-ch Analog Input Module with High Voltage Protection (RoHS)

Important Note: The ZigBee AIO modules need a ZB-2570 to coordinate the data transmission route, please remember to also order a ZB-2570 when you purchase the ZB DIO products.

Accessories

MDR-20-24	24 V_{DC}/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)