

ZT-2018/S

Wireless 8-channel Analog Input Module with High Voltage Protection

Features

- ISM 2.4 GHz Operating Frequency
- Fully Compliant with 2.4 G / ZigBee Specifications
- Wireless Transmission Range up to 700 m
- External DIP and Rotary Switches for easy Configuration
- GUI Configuration Software (Windows Version)
- 8 Differential Analog Input Channels (TC, mV, V)
- Individual Channel Configuration
- Open Thermocouple Detection
- Overvoltage Protection up to 240 Vrms
- ±4 kV ESD Protections (Conact for each Terminal)

Introduction

The ZT-2018 a wireless 16-bit, 8-channel differential analog input module with an extremely high quality protection mechanism where overvoltage protection is up to 240 Vrms. Input type includes current, voltage as well as thermocouple. and is much more suitable for harsh environments. Moreover, a newly-added feature that enables open thermocouple detection makes the ZT-2018 more attractive than ever. The ZT-2018 is also qualified 3000 VDC intra-module isolation. Users can easily configure the module address, protocol, checksum, ZT-PID, ZT-channel and type code settings using a combination of rotary and DIP switches.

System Specifications

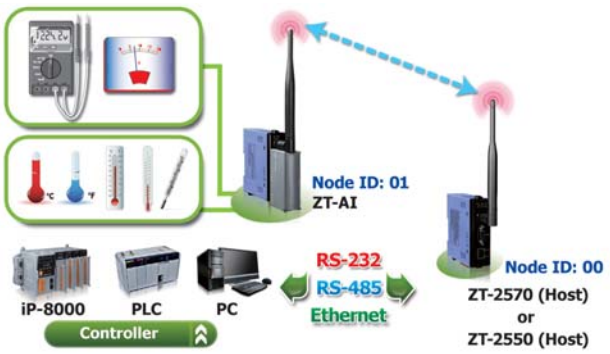
Communication Interface	
Wireless Standards	ZigBee 2007 Pro
Transmission Power	10 dBm to 19 dBm (EIRP) (Adjustable via Utility)
Antenna	2.4 GHz - 5 dBi Omni-directional Antenna
Transmission Range (LoS)	300 m to 700 m (Depending on the RF power setting)
Certification	CE/FCC, FCC ID
Max. Slaves in a ZigBee Network	255
ZB-100R/ZB-100T Support	-
Protocols	Supports DCON and Modbus RTU Protocols
Dual Watchdog	Yes, Module (1.6 Seconds),
LED Indicators	
Power	1 LED, Red
ZigBee Communication	1 LED, Green
Power	
EMS Protection	ESD, Surge, EFT
Input Voltage Range	+10 VDC ~ +30 VDC
Power Consumption	1.2 W Max.
Mechanical	
Flammability	Fire Retardant Materials (UL 94V-0 Level)
Dimensions (L x W x H)	87 mm x 33 mm x 110 mm
Installation	DIN-Rail
Environment	
OperatingTemperature	-25 ~ +75°C
Storage Temperature	-30 ~ +80°C
Humidity	10 ~ 90% RH, Non-condensing

Thermocouple Type

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

Applications

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

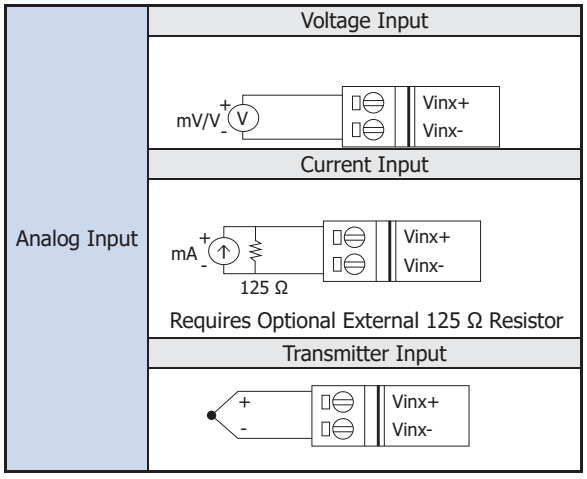


I/O Specifications

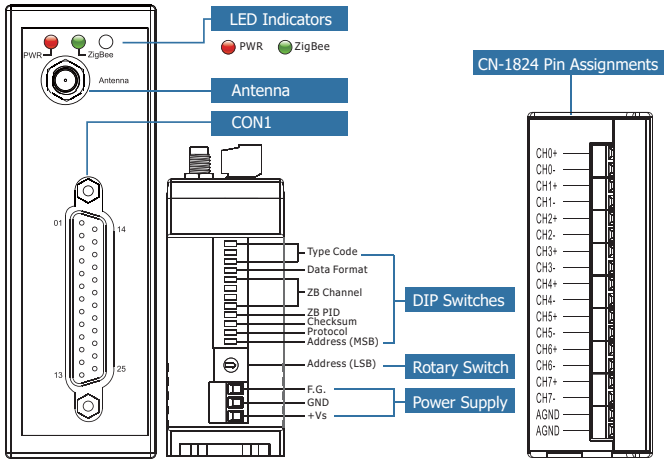
Analog Input	
Input Channels	8 Differential
Input Types	±15 mV, ±50 mV, ±100 mV, ±500 mV, ±1V, ±2.5 V, ±20 mA, 0 ~ 20 mA, 4 ~ 20 mA or Thermocouple (J, K, T, E. R. S, B, N, C, L, M, LDIN43710) (Requires Optional External 125 Ω Resistor for current input).
Resolution	16-bit
Sampling Rate	10 Samples/Sec. (Total)
Accuracy	±0.1% of FSR
-3dB Bandwidth	15.7 Hz
Common Mode Rejection	86 dB min.
Normal Mode Rejection	100 dB
Input Impedance	>400 kΩ
Overvoltage Protection	Yes
Individual Channel Configuration	240 Vrms
Intra-module Isolation, Field-to-Logic	3000 VDC

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Wiring

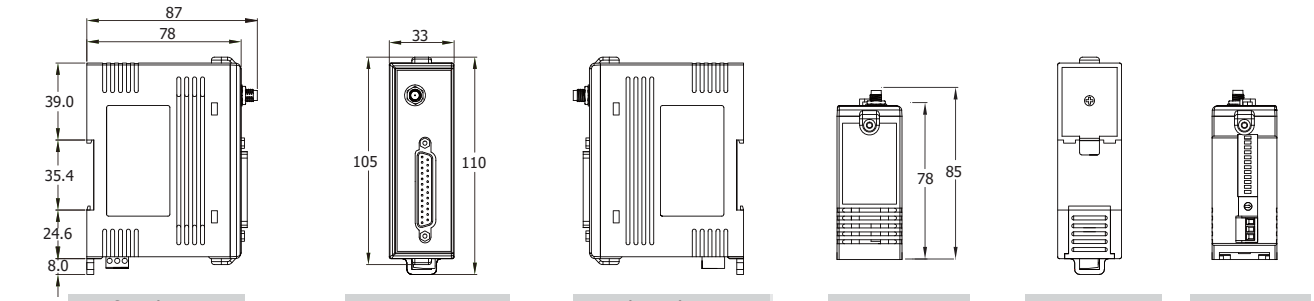


Appearance



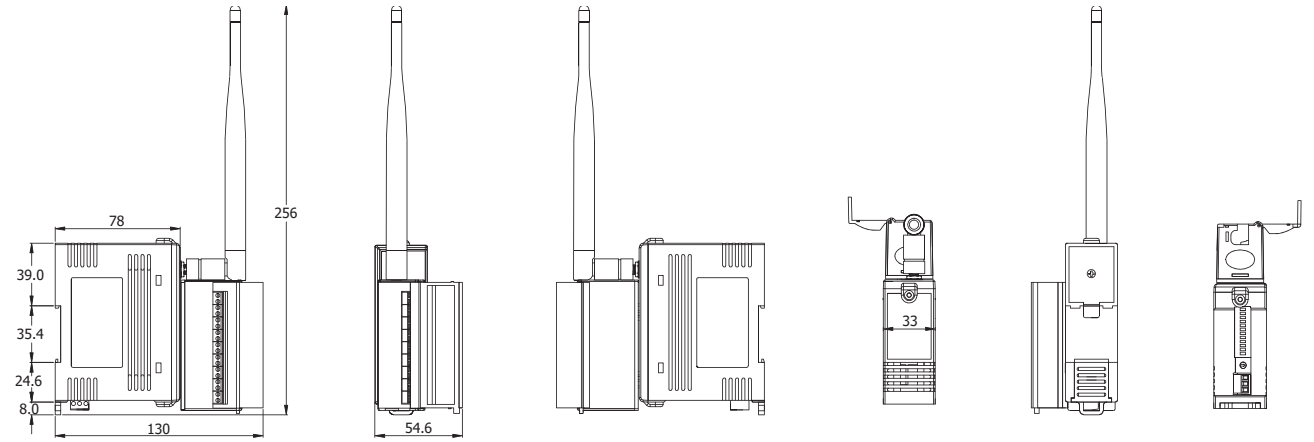
Dimensions (Units: mm)

ZT-2018



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

ZT-2018 + CN1824



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

Ordering Information

ZT-201/S CR	Wireless 8-channle Analog Input Module with High Voltage Protection (ZigBee Router) (RoHS) include ZT-2018 module and CN-1824 daughter board

Important Note: ZigBee Data Acquisition modules need a ZigBee host converter to coordinate the data transmission route.
Please remember to order a ZT-2550, ZT-2570, or ZT-USBC ZigBee host converter when you purchase ZigBee Data Acquisition products.

Accessories

MDR-20-24	24 VDC/1.0 A, 24 W Power Supply with DIN-Rail Mounting
ZT-2510 CR	ZigBee Repeater (RoHS)
ZT-2550 CR	RS-485/RS-232 to ZigBee Converter (Host)
ZT-2570 CR	Ethernet/RS-485/RS-232 to ZigBee Converter (Host) (RoHS)
External Antenna	2.4 GHz External Antenna, RP SMA Male (Plug)
Extension Cable	3S00x-1, RG58A/U × Meter Long RP-SMA (male) to RP-SMA (female)

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