ZB-2017-T/ZB-2017-PA

Wireless 8-channel Analog Input Module with High Voltage Protection

Features

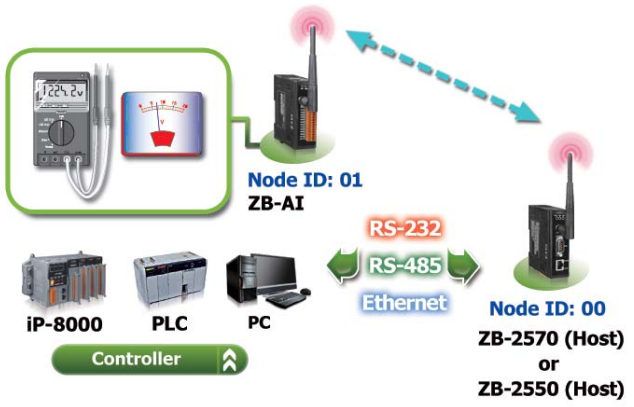
- ISM 2.4 GHz Operating Frequency
- Fully Compliant with 2.4G IEEE 802.15.4/ZigBee Specifications
- Wireless Transmission Range up to 700 m (PA-Version)
- Wireless Transmission Range up to 100 m (T-Version)
- GUI Configuration Software (Windows Version)
- 8 Differential Analog Input Channels (mV, V)
- Individual Channel Configuration
- Overvoltage Protection up to 240 V_{rms}
- EFT and ESD Protection
- DIN-Rail Mounting

Introduction

The ZB-2017-T/ZB-2017-PA is a wireless 16-bit, 8-channel differential analog input ZigBee module that provides a programmable input range on all analog channels (+/-150 mV, +/-500 mV, +/-1 V, +/-5 V or +/-10 V) . Each analog channel can be configured for an individual input range and has a high 240 V_{rms} overvoltage protection. Users can easily configure to configure the module address, protocol, checksum, ZB-PID, ZB-channel and type code settings using a combination of rotary and DIP switches.

Applications

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



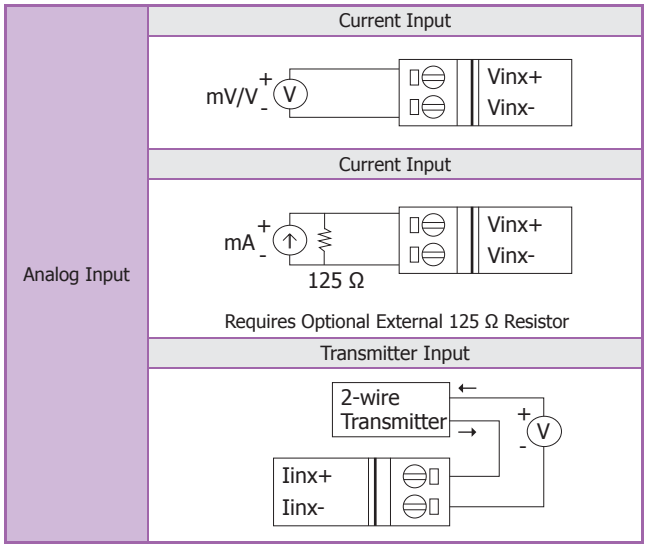
System Specifications

Model	ZB-2017-T	ZB-2017-PA
Communication Interface		
Wireless Standards	ZigBee, IEEE 802.15.4	
Transmission Power	4 dBm	22 dBm
2.4 GHz Antenna	3 dBi Omni directional	5 dBi Omni directional
Transmission Range (LoS)	100 m	700 m (Typical) 1 km (Max.)
Certification	CE/FCC, FCC ID	-
Max. Slaves in a ZigBee Network	254	
ZB-100R/ZB-100T Support	Yes	
Protocols	Supports DCON and Modbus RTU Protocols	
Hot Swap	Rotary and DIP switch	
LED Indicators		
Power	1 LED, red	
ZigBee Communication	1 LED, green	
Power		
Power Consumption	1.7 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	
Relative Humidity	10 ~ 90% RH, Non-condensing	

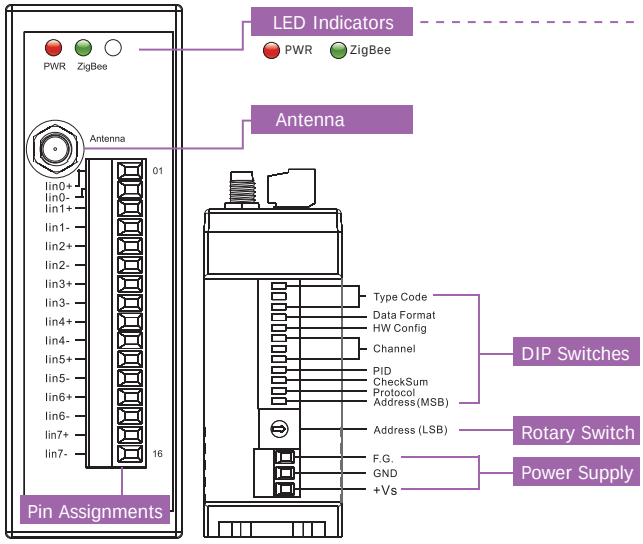
I/O Specifications

Model	ZB-2017-T	ZB-2017-PA
Analog Input		
Input Channels	8 Differential	
Input Types	+/-10 V, +/-5 V, +/-1V, +/-500 mV, +/-150 mV or -20 mA ~ +20 mA (Requires Optional External 125 Ω Resistor)	
Resolution	16-bit	
Sampling Rate	16-bit, 10 Samples/Sec. (Total)	
Accuracy	+/-0.1% of FSR	
-3dB Bandwidth	15.7 Hz	
Zero Drift	+/-20 μV/°C	
Span Drift	+/-25 ppm/°C	
Common Mode Rejection	86 dB	
Normal Mode Rejection	100 dB	
Input Impedance	>2 MΩ	
Overvoltage Protection	240 V_{rms}	
Individual Channel Configuration	Yes	
Intra-module Isolation, Field-to-Logic	3000 VDC	
ESD Protection	+/-4 kV contact for each channel	

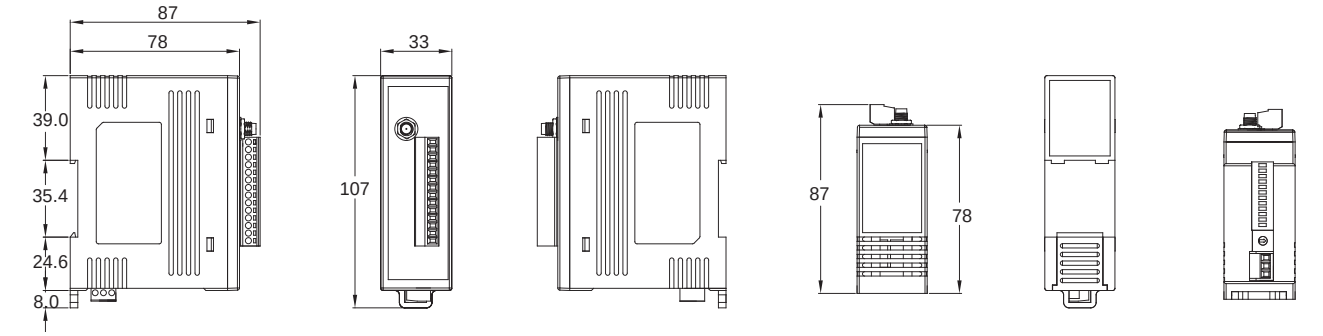
Wiring



Appearance



Dimensions (Units: mm)



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

Ordering Information

ZB-2017-T CR	Wireless 8-channel Analog Input Module with High Voltage Protection (RoHS)
ZB-2017-PA CR	Wireless 8-channel Analog Input Module with High Voltage Protection (RoHS) (Long Range)

Important Note: ZigBee Data Acquisition modules need a ZigBee host converter to coordinate the data transmission route. Please remember to order a ZB-2550-T, ZB-2550-PA, ZB-2570-T or ZB-2570-PA 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
ZB-2510-T CR	ZigBee Repeater (RoHS)
ZB-2510-PA CR	ZigBee Repeater (RoHS)
ZB-2550-T CR	RS-485/RS-232 to ZigBee Converter (Host)
ZB-2550-PA CR	RS-485/RS-232 to High Power Amplifier ZigBee Converter (Host) (RoHS)
ZB-2570-T CR	Ethernet/RS-485/RS-232 to ZigBee Converter (Host) (RoHS)
ZB-2570-PA CR	Ethernet/RS-485/RS-232 to High Power Amplifier ZigBee Converter (Host) (RoHS)