



FEATURES

- › Easy to install and commission
- › Mains- and battery-powered versions available
- › Battery life up to 10 years (subject to input switching frequency and reporting interval)
- › On-board data logging of up to 10,000 data points
- › Waterproof polycarbonate enclosure
- › Fully wireless communications
- › Wireless range up to 300m (LoS)
- › Dimensions (LxWxH): 144mm x 112mm x 35mm
- › Self-healing mesh network
- › 2.4GHz ISM band ZigBee® wireless radio
- › Fully secure communications: 128-bit AES encryption
- › Over-the-air software upgrade capability

INTRODUCTION

The ZDI is a digital input sensor used to interface with and provide information on the status of dry contact switches. Changes to the state of the switch are reported to the NGR-30 Smart Gateway as they occur.

Large networks of multiple ZDI units can connect to the Smart Gateway to deliver data to a central location for detailed analysis. If wireless communications break down, up to 10,000 data points will be logged automatically.

The ZDI unit has on-board ZigBee wireless communications, is housed in a waterproof polycarbonate enclosure, and is available as a battery-powered unit (ZDI-10) or a mains-powered unit (ZDI-20).

APPLICATIONS

The ZDI Wireless Digital Input interfaces with and reports the current state of a dry switch (relay, alarm sensor). The ZDI reports changes to the state of that switch as they occur, time-stamped to the nearest second. The ZDI also reports the number of state changes and the percent in a particular state on a timed basis.

The ZDI unit can be used to monitor the state of typical alarm sensors, such as reed switch door/window sensors, or can be used to monitor the on/off state of any machine, provided the machine is fitted with a digital output that opens and closes depending on the run mode of the machine.

Care must be taken when using the ZDI-10, as the system consumes more power when the switch is in a closed state. If power is available, the ZDI-20 should be used, or the ZDI-10 in situations when the switch is normally open.

Wireless Digital Input

ZDI-10/ZDI-20

data sheet

SPECIFICATION



Dimensions for ZDI-10 /ZDI-20 Wireless Digital Input

Ordering Code	ZDI-10 ZDI-20	Battery-Powered Wireless Digital Input Mains-Powered Wireless Digital Input
Pulse Input	Channels Maximum Switching Frequency	Single Channel 4 Hz (battery)/30Hz (mains)
Battery (ZDI-10 only)	Lifetime Type	up to 10 years (30 min reporting interval) Lithium Thionyl Chloride (permanent)
Certification	Certification	CE
Wireless Technology	Radio Technology Radio Frequency Channels Max Tx Power Rx Sensitivity Data Rate	ZigBee Pro 2.4 Ghz ISM Band 16 Channels (11 - 26) +3dBm (+5dBm in Boost Mode) -98dBm @ 1% Packet Error Rate up to 250 kbits/sec
Wireless Range	Indoor Range Outdoor Range	up to 50m up to 300m (direct line of sight)
Security	Encryption	128-bit AES Encryption
Physical	Dimensions (LxWxH) Weight Mounting Enclosure	144 x 112 x 35 mm 150g Wall Mounting Holes Polycarbonate, Waterproof (IP67)
Operating Conditions	Operating Temperature Operating Humidity	-40°C to +85°C up to 80% (non-condensing)