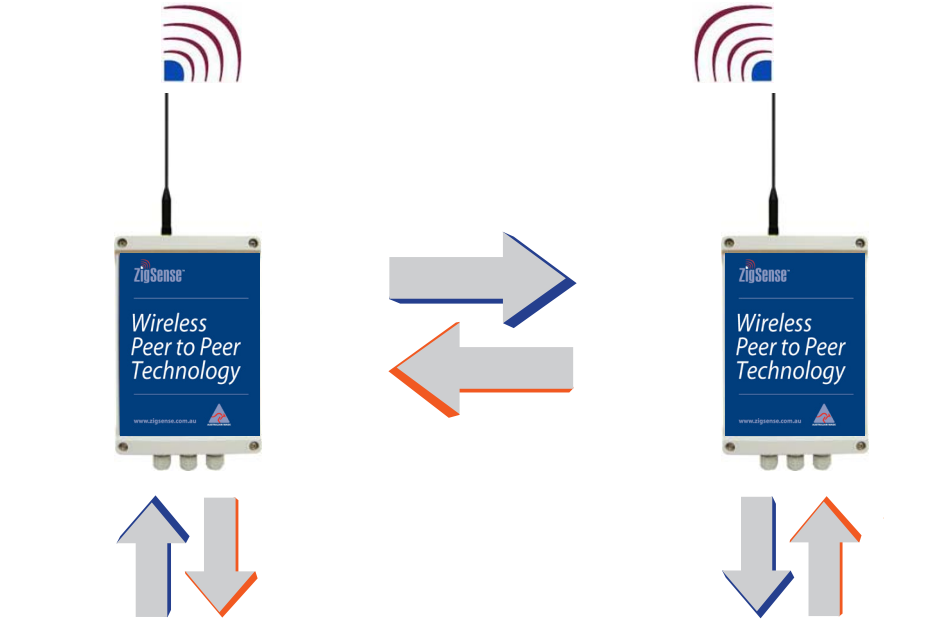
ZigSense™

WIRELESS SENSING TECHNOLOGY

Wireless Cable Replacer

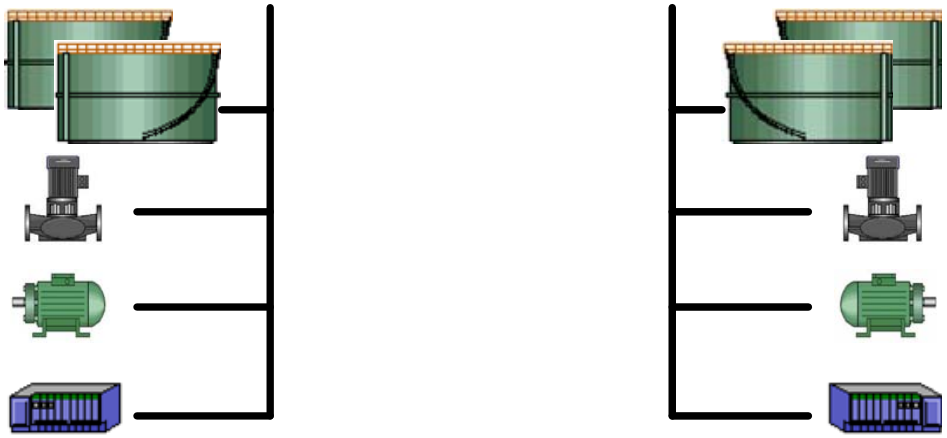
Peer to Peer - Input/Output Matched Pair

ZigSense model ZS-P2P-001 is a wireless cable replacer device designed to transfer wired I/O data between two remote locations using license free radio frequencies.
High speed communications and full duplex data transfer enable digital and analog I/O signals to be transferred reliably over short, medium or long distances. Analog signals; Tank level, Temperature, Pressure, Flow and Digital conditions; Pump, Motor start/stop, Alarm conditions, can be transferred to a remote PLC or between two PLC I/O modules eliminating the need for expensive cables, conduits and trenches. Use of ZigSense wireless peer to peer nodes will contribute to significant reduction in materials and installation costs.



2 X Ain + 2 X Aout
4 X Din + 4 X Dout

2 X Aout + 2 X Ain
4 X Dout + 4 X Din



Specifications

RF Network Communications
Network: Peer To Peer, Full Duplex
Network ID: Automatic
Station ID: Automatic
Radio technology – DSSS / SSFH
Radio frequency: ISM 2.4GHz / 900MHz
RF Channels: 16@2.4GHz / 4-8@900MHz
RF Channel selection: Manual
Radio certification: FCC, CE, C-tick

2.4GHz @RF data rate 256Kbps
Tx Power: +18dBm
Rx Sensitivity: – 102dBm
900MHz @RF data rate 9.6K/19.2K/156K
Tx Power: +17dBm to +24dBm MAX
Rx Reception: – 100dBm to -109dBm

Board Sampling Rate:
Select: 0.5 / 1 / 1.5 / 2 Sec

RF Antenna
Default: External 'whip' antenna 2.1dBi
Optional: External high gain antenna

Inputs & Outputs
2 x Ain: 0–5V/0-10V/0-20mA. 16bits
2 x Aout: 0–5V/0-10V/0-20mA. 16bits
4 x Din: Contact closure to GND 24VMAX
4 x Dout: SS Relay N.O 60VDC, 1A MAX

Alarm Output
1 x Dout: SS Relay N.O. 60VDC, 1A MAX
1 x Alarm buzzer (internal)

Digital Outputs LED Indicators
LED1 to LED4: ON when Dout is ON

Analog Output Fault LED Indicators
ON: When output current loop is open
Failsafe Outputs (Digital & Analog)
Condition: Comms' Error / Power loss
Default: Failsafe Low. All outputs OFF
Failsafe delay: 10 x board sampling rate
Power restart: Failsafe Low

Invert Digital Outputs
Default: Digital outputs - Not Inverted
Select: Invert / Do not invert
Failsafe condition: Inverted Dout → OFF

ESD rating & Isolation
Digital Inputs: 7KV ESD. +/- 25VDC to GND
Analog Inputs: 7KV ESD. +12VDC MAX
Digital Outputs: 5KVAC isolation

System Setup, Diagnostics & Logging
USB port: Built-in. FTDI driver
Configuration: Local / Over the air (OTA)
Setup & diagnostics: Software utility
Data monitoring: Software utility
Data Logging: CSV format

Communication Indicators
RSSI: ON → Good Signal Quality
TX: Blink / OFF → Communications loss
RX: Blink / OFF → Communications loss
Join: Blink / ON → Communication loss
Comm: OFF / ON → Communication loss

General
External DC power: 12V to 32VDC. 3.6W
Temperature: -40°C + 85°C
Humidity: 75%RH non-condensing
Wiring: Internal terminal block
Cables: Inserted through wiring glands
Enclosure: Polycarbonate UV stable IP65
Dimensions: 180L X 120W X 60H (mm)
Weight: 265 gram
ROHS compliance: Yes

How to order:
Model: ZSXX-P2P-001-YY

XX: 24 2.4GHz short to medium range
XX: 09 900MHz medium to long range
XX: 08 868MHz medium to long range
YY: 01 Supplied with enclosure
YY: 02 Supplied without enclosure. Board only

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