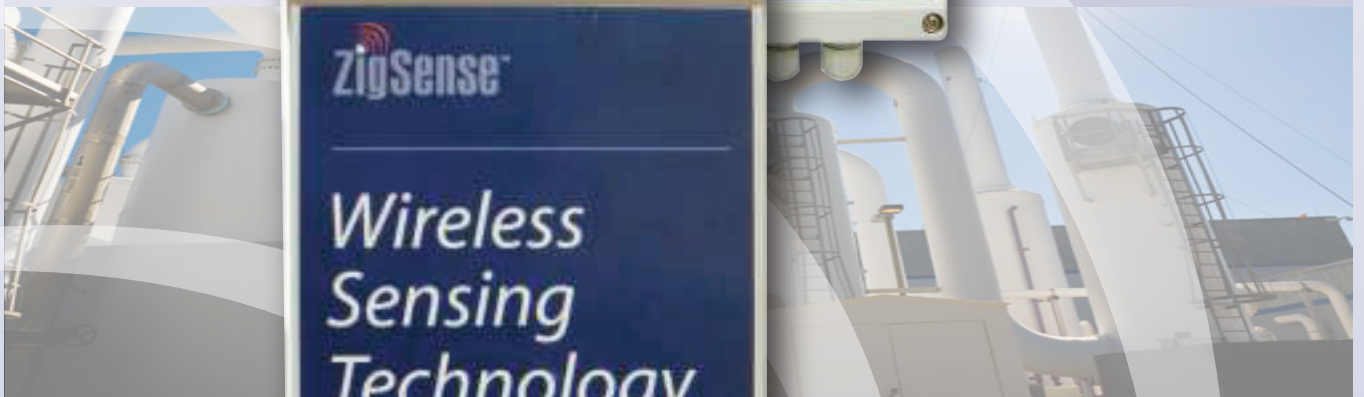


ZigSense™

WIRELESS SENSING TECHNOLOGY



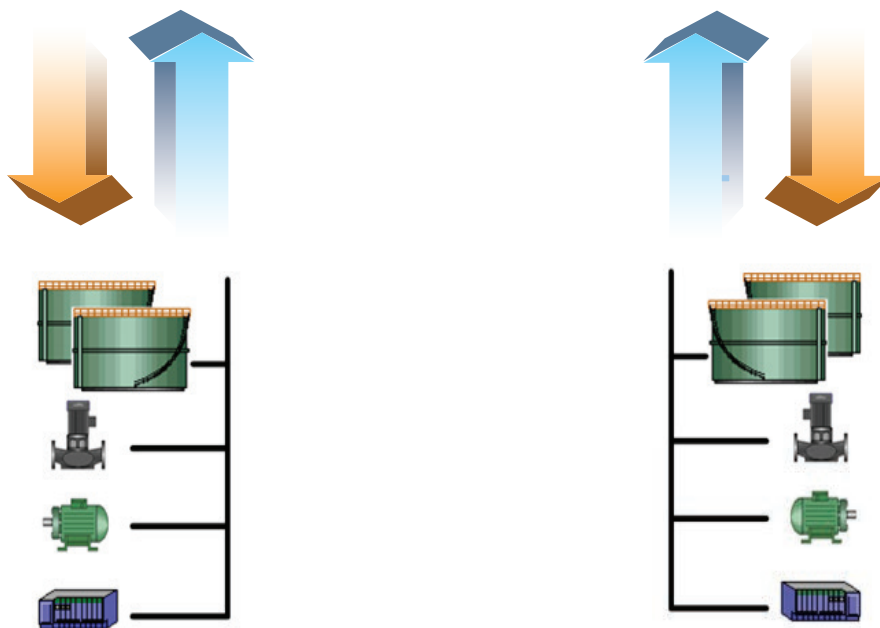
www.zigsense.com.au

Wireless Point-to-Point Cable Replacer

ZigSense model **ZS-P2P-001** is a wireless **Point-To-Point** cable replacer device designed to transfer wired sensors data and I/O control commands between two remote locations using license free radio frequencies. High speed communications combined with bidirectional data transfer enable Digital and Analog signals to be transferred reliably over short, medium or long distances using 2.4GHz, 900MHz or 868MHz radios. Analog signals such as Tank level, Temperature, Pressure, Flow etc. and Digital conditions such as Pumps, Motors Start/Stop Switches, Alarm conditions etc. can be exchanged simultaneously with a remote PLC or between two PLC I/O modules eliminating the need for long cables, conduits or trenches. Use of ZigSense wireless point-to-point nodes will significantly reduce materials and installation costs.

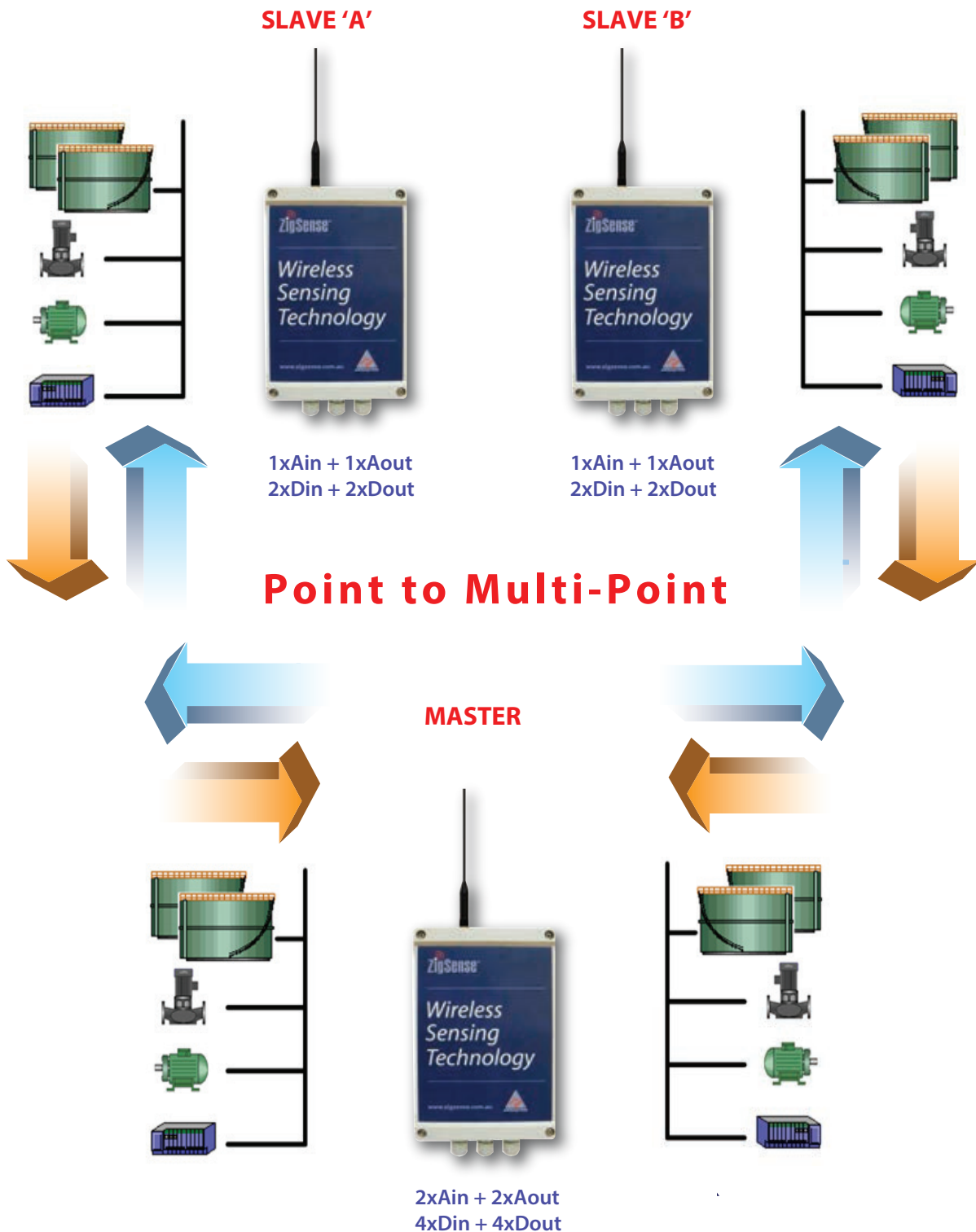


Point to Point



Wireless Multi-Point Cable Replacer

ZigSense model **ZS-P2MP-002** is a wireless cable replacer system. It supports **Point To Multi-Point** technology transferring wired sensors data and I/O control commands between a local **MASTER** node and two **SLAVE** nodes installed in separate remote locations using license free radio frequencies. High speed communications combined with **P2MP** bidirectional data transfer enable Digital and Analog signals to be reliably transferred over short, medium or long distances using 2.4GHz, 900MHz or 868MHz radios. Analog signals Tank level, Temperature, Pressure, Flow etc. and Digital conditions Pumps, Motors, Start/Stop Switches, Alarm conditions etc. can be exchanged simultaneously between the **MASTER** node in location **'A'** and two **SLAVE** nodes in locations **'B' and 'C'** eliminating the need for long cables, conduits or trenches. Use of ZigSense wireless point-to-point nodes will significantly reduce materials and installation costs.



RF Network Communications

Network 1: Point To Point (P2P)
Network 2: Point To Multi-Point (P2MP)
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 (63mW)
Rx Sensitivity: – 102dBm
900MHz @RF data rate 10K / 200Kbps
Tx Power: +24dBm (250mW)
Rx Sensitivity: – 101dBm (200Kbps)
Rx Sensitivity: – 110dBm (10Kbps)

RF Antenna

Default: External 'whip' antenna 3.0dBi
Optional: External high gain antenna

Board I/O Sampling Rate:

Configure: 0.5 / 1 / 1.5 / 2 Sec

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 (built-in)

Digital Outputs LED Indicators

LED1 to LED4: ON when Dout is ON

Analog Output LED Fault Indicators

ON: When Aout current loop is open

Failsafe Outputs (Digital & Analog)

Condition: Comms' Error / Power loss
Default: Failsafe = Low. All outputs = OFF
Failsafe delay: 10 x I/O sampling rate
Power restart: Failsafe = Low

Invert Digital Outputs

Default: Digital outputs are not Inverted
Configure: Dout Invert / 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

Setup, Diagnostics & Data Logging

Software: ZigSoft
USB port: Built-in. FTDI driver
Configuration: Local / Over the air (P2P only)
Setup & diagnostics: ZigSoft
Data monitoring: ZigSoft
Data Logging: CSV format. ZigSoft

Communication Indicators

RSSI: ON Good Signal Quality
TX: Blink. OFF = Communications loss
RX: Blink. OFF = Communications loss
Join: Blink. ON = Communications loss
Comm: OFF. ON = Communications loss

General

External DC power: 12V to 32VDC 3.6W
Temperature: -40°C + 85°C
Humidity: 75%RH non-condensing
Wiring: Internal wiring 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
Model: ZSXX-P2MP-002-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 Board only