

The P2P-O Wireless Output Node is part of the Define Instruments Twin Link point-to-point system.

It receives wireless transmissions from the paired Input Node (P2P-I), and provides dual 4-20mA retransmission.

- › **2x 4-20mA Analogue Outputs**
For simple interface to PLC's and SCADA systems
- › **4x digital inputs, 2x digital outputs, and 2x relays**
Configure your IOs for mimicking, alarms, and sophisticated remote control of other equipment
- › **Transmit up to 1.5km (0.9mi) Line Of Sight**
- › **Simple USB setup using Define Toolbox**
Free download from defineinstruments.com/toolbox



Specifications

General

Power supply 9–36V DC, 2.5VA max

Isolation 1500V AC between power supply and output channels

Simple software programming using Define Toolbox

Connect to the P2P-I Input Node (Bridge Key required, sold separately)

Transmission

RF data rate 250Kb/s

RF frequency range 2405-2475MHz

RF receiver sensitivity -110dBm

RF transmission power +20dBm (Optional low power setting [10dBm] selectable in software)

Transmission range Up to 1.5km (0.9mi) LOS with supplied antenna (WG-3DBI). All nodes must be set to full power [+20dBm] for max range.

Number of RF channels 15

Up to 17 wireless nodes per mesh Twin Link (P2P-I & P2P-O) plus up to 15x Repeaters (P2P-R)

Spreading method Direct sequence

Modulation O-QPSK

Analogue Outputs

2x Analogue outputs Isolated 4–20mA or 20–4mA DC

Power supply Loop powered

Resolution 15 bits, 16000 steps

Loop drop 10V max

Linearity & repeatability 0.1% FSO max

Accuracy 0.1% FSO max

Ambient drift 50ppm/°C FSO max

Isolation to Digital IO GND 1400Vrms for 1min. Working voltage 125V DC

Relay Outputs

2x Relay outputs Form A relays (5A 250V AC / 5A 30V DC)

Isolation to sensor and user input commons 2300Vrms for 1min. Working voltage 250V AC

Life expectancy 100K cycles min at full load rating

Digital IO's

4x Digital inputs Max rate 1Hz. Selectable sink/source. Suitable for clean contacts, NPN, PNP and voltage

inputs (low input <1.4V DC, high input 1.4–30V DC)

Max continuous input 20V DC

Not isolated to power supply common

2x Digital outputs Open drain (1A, 30V DC max)

Construction

35mm DIN rail mount casing IP20 rated. Install in a protective enclosure. Installation Category II; Pollution Degree 2; Flame resistant

Dimensions (H x W x D)
101 x 23 x 120mm (3.98 x 0.91 x 4.72")
With included antenna:
150 x 23 x 146mm (5.91 x 0.91 x 5.75")

Single unit weight 150g (5.3oz), with included antenna and plugs

Environmental conditions

Operating temp -20 to 55°C (-4 to 131°F)

Storage temp -20 to 65°C (-4 to 149°F)

Operating humidity 0–85% non-condensing

Altitude 2000m (6561ft)

Compliances

FCC ID: 2ACTT-1409 47 Code of Federal Regulations; Part 15 - Radio Frequency Devices; Subpart C - Intentional Radiators, including Section 15.247 - Operation in the band 2400 -2483.5MHz

AS/ANS 4268:2012 Radio equipment and systems - Short range devices - Limits and methods of measurement

ETSI EN 300 440-2, V1.4.1, 2010 Electromagnetic compatibility and Radio spectrum matters (ERM); Short Range Devices (SRD); Radio equipment to be used in the 1GHz to 40GHz frequency range; Part 2: Harmonised EN under article 3.23 of the R&TTE Directive

EN 301 489-3, V1.6.1, 2013 Electromagnetic compatibility and Radio spectrum Matters (ERM); Electromagnetic Compatibility (EMC) standard for radio equipment and services; Part 3: Specific conditions for Short Range Devices (SRD) operating on frequencies between 9kHz and 40GHz

P2P Product Codes

P2P-TWIN-LINK	Point-to-Point paired I/O units
P2P-R	Point-to-Point Repeater Node
P2P-I*	Point-to-Point Universal Input Node
P2P-O*	Point-to-Point Output Node

* Not sold separately unless for replacement

Accessories (Sold Separately)

FCC approved 3DBi monopole antenna included with all P2P units. All other accessories are not FCC approved.

WG-8DBI	8DBi Monopole antenna (Range= 2.7km [1.7mi] LOS)
WG-AEC	Antenna extension cable 30cm
WG-PSU	Power adaptor for 9-36V DC supply
BRIDGE-KEY	USB Bridge Key for PC programming

Set up your P2P system in minutes! Visit defineinstruments.com/toolbox

