

- Serial Communications (RS-232 or RS-485)
- Slim DIN Rail Mounted Package
- License Free Operation (FCC approved)
- Up to 1 Watt of RF Power (Selectable)
- LED Status for RSSI and Communications
- Operating Temperature: -40° to 80°C
- Works with other ioPro Modules in Mirrored IO Configurations



The Wireless Data Link (WDL) adds seamless wireless capabilities to the ioPro Series. The WDL supports all the ioPro operating modes, and more. With its industry leading 125Kbps over air data rate it can be used as a "Radio Modem" for other demanding wireless serial applications. With its powerful radio (Up to 1 Watt) and high receiver sensitivity the WDL can communicate effectively over long distances (up to 20 Miles with clear line of site), and has the power to penetrate walls and other obstacles in shorter runs.

The WDL is a general purpose Radio Modem that can be used with any RS-232 or RS-485 compatible device and protocol (Modbus, etc.). With the WDL any node can be defined as a repeater (even with local devices attached), or if desired a true Mesh protocol can be enabled.

Finally, the easy to read Receive Signal Strength Indication (RSSI) on every unit makes it easy to determine the reliability of the radio link.

### IO Specifications

Baud Rates:	10 to 230,400 bps
LED Status:	
General:	RS-485 TX and RX
RSSI:	2 ON = Excellent (> 20dB Margin) 1 ON = OK (> 10dB Margin) 0 ON = Poor (< 10 dB Margin)
Modulation:	Frequency Hopping Spread Spectrum (FHSS)
Oper Band:	902 to 928 MHz
Trans Power:	1mW to 1 W
Hopping Chan:	50
On Air Rate:	125,000 bps
Sensitivity:	100 dBm

Error Detection:	16 bit CRC
Addressing:	65535 Unique Addresses
Encryption:	256-bit AES Encryption

### General Specifications

Humidity:	95% non-condensing
Temp (Operate):	-40 to 80 °C (-40 to 176 °F)
Temp (Storage):	-40 to 85 °C (-40 to 185 °F)
Power (V):	10 to 26 VDC
Power (I):	1W (Trans): 600mA (12V) 1W (Rec): 60mA (12V) 100mW (Trans): 200mA (12V) 100mW (Rec): 60mA (12V)
Dimensions:	22.6 x 109 x 97.5 mm (W x H x D) (0.89 x 4.29 x 3.84 in)
Weight:	100 g ( 3.5 oz)

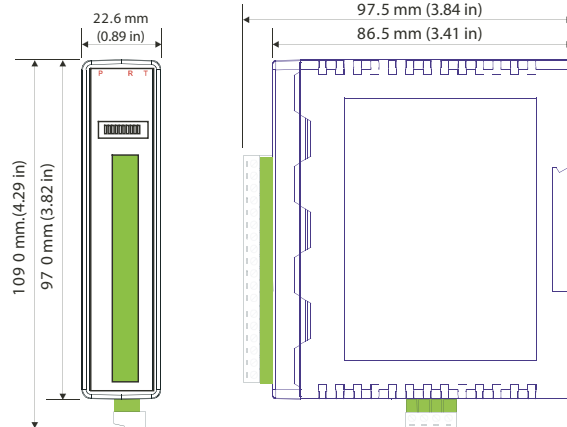
For more detailed specifications and other usage information please refer to the **ioPro Product Manual** available on the ioSelect website.

<b>Ordering Information:</b>	<b>IOPRO-WDL</b>	Wireless Data Link (900MHz FHSS, 0.1 Watt to 1.0 Watt)
<b>Accessories:</b>	<b>IOS-WAC-Y6</b>	Yagi Antenna (6dB), N Female
	<b>IOS-WAC-OMNI6P</b>	Omni Antenna (6dB), N Female, includes pole mount kit
	<b>IOS-WAC-OMNI3E</b>	Omni Antenna (3dB), N Female, Enclosure Mount
	<b>IOS-WAC-LPG</b>	Lightning Protector
	<b>IOS-WAC-RG58-03</b>	RF Cable (3'), RSMA-to-N Male
	<b>IOS-WAC-LMR400-025</b>	LMR400 RF Cable (25') , N-Male to N-Male, Low Loss

## Wiring (Power and Comms)

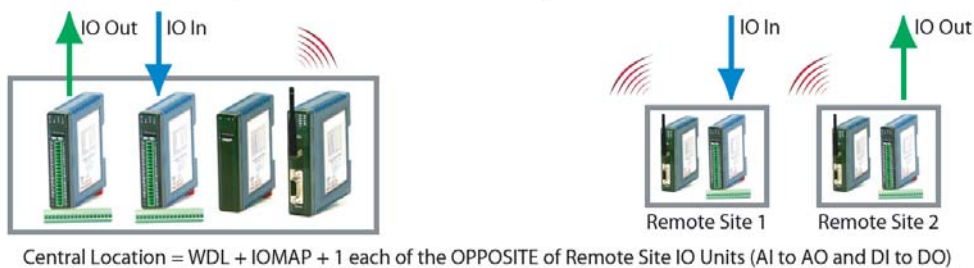
Pin	Connection
1	- 12Vdc @ 30mA
2	+ 24Vdc @ 17mA
3	+ Comms
4	- RS485

## Drawing



## Typical Usage

### Wireless Mirrored IO (One or More Remote Sites) - INs to OUTs and Vice Versa



### Wireless Modbus IO (One or More Remote Sites) - ANY mix of IO



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