



Series: WCS-24

Wireless Remote Control Transmitter/Receiver Set



FEATURES & BENEFITS

- Up to 1 Mile Remote Control Operation
- Control Up To 8 Remote Devices
- Solar Power Operation Kit Available
- Weatherproof NEMA 4X Rated Enclosures
- Pre-configured, Ready-To-Operate
- Mechanical or (SSR) Solid State Control Relays
- Feedback LEDs on Transmitter Report Status

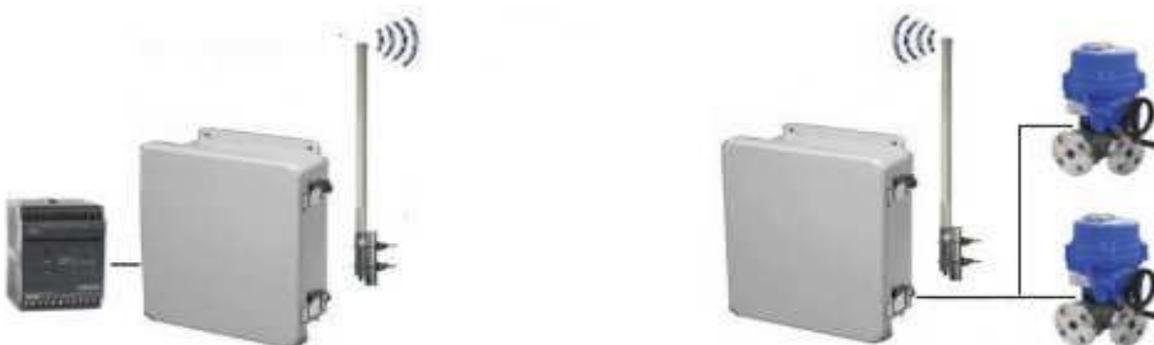
APPLACATIONS

- Tank Monitoring or Water Level Alarm
- Process Controls, Instrumentation
- Level & Flow Control & Irrigation Systems
- Water Pump & Valve Motor Control

DESCRIPTION

Series WCS-24 - Wireless Remote Control System provides a wireless bridge for remotely activating equipment from a distance of up to 1 miles using wireless 2-way communication. The system has been designed and engineered for easy installation and trouble free operation. The transmitter is equipped with contact closure inputs, used to control relays on the receiver unit. Both transmitter and receiver controller are included when you purchase a WCS-24 system matched set. Models are available with 5, 10, 20 and 30 Amp mechanical Form C relays or Solid State Relays (SSR). Transmitter can be activated with dry-contact manual switches or connected to a PLC for automated control.

Application Example: Controlling 2 Motorized Valves with a Programmable Logic Controller (PLC)



General Specifications

Radio Frequency: 2.4 GHz
Protocol: 802.15.4
Immunity: Frequency Hopping Spread spectrum
RF Power Output: 63mW
RF Output Impedance: 50 Ohm nominal
Transmitter/Receiver Code Matching: Factory set
Transmit/Receive Distance With Included Antennas:
 Up to 300' Indoor/Urban
 Up to 1 Mile (LOS) Line-of-site

Transmitter Specifications

Transmit Time: 250ms
Control Connection: Terminal Blocks
Feedback Indicators: Relay Status LEDs
Activation: Dry contact (Push-button, switch, relay)
Power: 120VAC, 12Vdc or Solar Power Option
Operating Temperature: -4 to 140 °F (-20 to 60 °C)
Enclosure: ABS/PCT Plastic
Enclosure Rating: NEMA 4, 4X
Enclosure Size: See model table

Receiver/Controller Specifications

Control Output Type: see model table
Control Connection: Terminal Blocks
Power: 120VAC, 12Vdc or Solar Power Option
Operating Temperature: -4 to 140 °F (-20 to 60 °C)
Enclosure: ABS/PCT Plastic
Enclosure Size: See model table

Available Options

Model Number	Description
WCS-24-SPK	Solar Power Kit

Solar Power Kit Includes Solar Panel, Charge Controller, Deep-cycle Battery, System Enclosure

Regulatory Approvals & Location Use

Approved for Use in USA, Canada only
 FCC Part 95 (No license required)
 FCC(USA) 4214A-XBEE
 IC (Canada) 4214A-XBEEPRO

Series: **WCS-24**

Transmit / Control Relay Boards Used in Models with 2-Control Lines. Model: WCS-24-2-5A Example



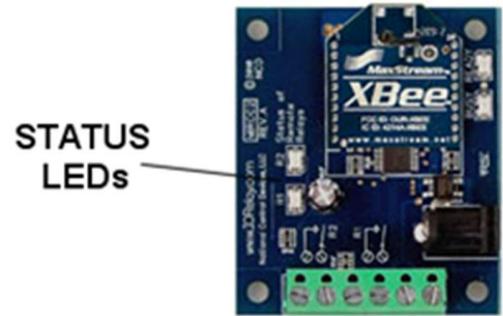
Note: WCS-24 Systems are sold as "Matched Set" Products. You will receive one transmitter unit and one control receiver unit factory programmed to only talk to each other. You can use multiple units in the field within the same area without them effecting each other's operation.



Optional Solar Power Kit

Status/Feedback Indication

The transmitter is also equipped with LEDs that display the status of the remote control relays. Status information is verified using 2-way communications. If communication is lost between the remote relay receiver and the transmitter, the sending device will turn off the LED. Additionally, every controller is equipped with a Busy/Ready LED. If the Busy LED flashes, this indicates the remote receiver has successfully received and accepted your contact closure status. If the Busy LED does not flash, the remote device is out of range.



Models Available with Mechanical Control Relays

Model Number	Control Lines	Control Relays	Transmitter / Receiver Enclosure
WCS-24-1-5A	1	5A SPDT (1 Each)	6 x 6 x 4"
WCS-24-1-10A	1	10A SPDT (1 Each)	6 x 6 x 4"
WCS-24-1-20A	1	20A SPDT (1 Each)	6 x 6 x 4"
WCS-24-1-30A	1	30A SPST (1 Each)	6 x 6 x 4"
WCS-24-2-5A	2	5A SPDT (2 Each)	8 x 6 x 4"
WCS-24-2-10A	2	10A SPDT (2 Each)	8 x 6 x 4"
WCS-24-2-20A	2	20A SPDT (2 Each)	8 x 6 x 4"
WCS-24-2-30A	2	30A SPST (2 Each)	8 x 6 x 4"
WCS-24-4-5A	4	5A SPDT (4 Each)	8 x 6 x 4"
WCS-24-4-10A	4	10A SPDT (4 Each)	8 x 6 x 4"
WCS-24-4-20A	4	20A SPDT (4 Each)	8 x 6 x 4"
WCS-24-4-30A	4	30A SPST (4 Each)	8 x 6 x 4"
WCS-24-8-5A	8	5A SPDT (8 Each)	12 x 8 x 5"
WCS-24-8-10A	8	10A SPDT (8 Each)	12 x 8 x 5"
WCS-24-8-20A	8	20A SPDT (8 Each)	12 x 8 x 5"
WCS-24-8-30A	8	30A SPST (8 Each)	12 x 8 x 5"

Models Available with Solid State Control Relays (SSR)

Model Number	Control Lines	Solid State Control Relays (SSR)	Transmitter / Receiver Enclosure
WCS-24-1-SR3R	1	3A, 240VAC SSR (1 Each) NO, SPST, For Resistive Loads	6 x 6 x 4"
WCS-24-1-SR3I	1	3A, 240VAC SSR (1 Each) NO, SPST, For Inductive Loads	6 x 6 x 4"
WCS-24-1-SR15R	1	15A, 240VAC SSR (1 Each) NO, SPST, For Resistive Loads	6 x 6 x 4"

WCS-24-1-SR15I	1	15A, 240VAC SSR (1 Each) NO, SPST, For Inductive Loads	6 x 6 x 4"
WCS-24-2-SR3R	2	3A, 240VAC SSR (2 Each) NO, SPST, For Resistive Loads	8 x 6 x 4"
WCS-24-2-SR3I	2	3A, 240VAC SSR (2 Each) NO, SPST, For Inductive Loads	8 x 6 x 4"
WCS-24-2-SR15R	2	15A, 240VAC SSR (2 Each) NO, SPST, For Resistive Loads	8 x 6 x 4"
WCS-24-2-SR15I	2	15A, 240VAC SSR (2 Each) NO, SPST, For Inductive Loads	8 x 6 x 4"
WCS-24-4-SR3R	4	3A, 240VAC SSR (4 Each) NO, SPST, For Resistive Loads	8 x 6 x 4"
WCS-24-4-SR3I	4	3A, 240VAC SSR (4 Each) NO, SPST, For Inductive Loads	8 x 6 x 4"
WCS-24-4-SR15R	4	15A, 240VAC SSR (4 Each) NO, SPST, For Resistive Loads	8 x 6 x 4"
WCS-24-4-SR15I	4	15A, 240VAC SSR (4 Each) NO, SPST, For Inductive Loads	8 x 6 x 4"
WCS-24-8-SR3R	8	3A, 240VAC SSR (8 Each) NO, SPST, For Resistive Loads	12 x 8 x 5"
WCS-24-8-SR3I	8	3A, 240VAC SSR (8 Each) NO, SPST, For Inductive Loads	12 x 8 x 5"
WCS-24-8-SR15R	8	15A, 240VAC SSR (8 Each) NO, SPST, For Resistive Loads	12 x 8 x 5"
WCS-24-8-SR15I	8	15A, 240VAC SSR (8 Each) NO, SPST, For Inductive Loads	12 x 8 x 5"

© 2014 :: Imagine Instruments LLC :: 4500 Williams Drive, Ste 212-318 :: Georgetown, TX 78633 :: p. 512.778.6850
e-mail: info@imagineinstruments.com :: www.imagineinstruments.com

Note: Continued product improvements make specifications subject to change without notice.
Check www.imagineinstruments.com for the latest product information and updates

Released: 3 March, 2014 :: Rev: A