INDUSTRIAL RADIO CONTROL SYSTEMS

EX2 SERIES

Frequency Hopping RF Transceiver - The Flex EX2 system automatically search and lock onto a free and uninterrupted channel at every system startup or during operation when encountering radio interference. The system is also capable of two-way communication between the transmitter and receiver and as well as receiver to receiver with status feedbacks (e.g. MAIN relays, output relays, inputs from external sources, and receiver fault detection).

Programmable Transmitter Access Card (TAC) - The optional transmitter access card feature (TAC) further guard against any unauthorized personnel from operating the system. The TAC can also be individually programmed unlocking any specific function or functions on the transmitter allowing a more experienced or qualified user to operate, such as the magnet lift, tandem operation, entering restricted areas, etc... The TAC is based on the RFID technology so any industry standard RFID cards or chips can be programmed into the transmitter.

Zero-G Sensor Imbedded - The transmitter is embedded with a Zero-G sensor to guard against any unintended control of the crane or equipment when transmitter is thrown or dropped. When triggered, the entire system will shut down with exception of the horn function.

Wireless Remote Pairing Function - System information can be transferred wirelessly between two transmitters or between a transmitter and a receiver without the hassle of resetting the spares.

Infrared Startup & System Programming - The transmitter and receiver are standard-equipped with infrared sensors for infrared system startup option and system wireless programming.

Advanced Controls - The system utilizes dual advanced microprocessor controls with 32bit CRC and Hamming Code, providing ultra fast, safe, precise and error-free encoding and decoding.

Ultra Reliable Pushbuttons - The in-house designed pushbuttons have gold plated contacts and are rated for more than two million press cycles. The defined snap-action steps provide positive tactile feedback even wearing gloves.

Ultra Durable & Rugged Enclosures - The transmitter and receiver enclosures are made from industrial strength nylon and fiberglass composite material, not ABS plastic. All housings meet the IP66/NEMA4 requirements and are highly resistant to dirt, liquid, acid, alkali, grease and oil penetration. The receiver enclosures and output cables are UL94-V0 rated.

Compact & Lightweight - The ergonomically designed transmitter and receiver enclosures are extremely compact and lightweight for easy operation and installation.

Unique Mounting Bracket - The removable receiver mounting brackets are uniquely designed for easy mounting and dismounting.

Low Power Consumption & Versatility - The transmitter requires only two "AA" alkaline batteries with more than 100 hours of uninterrupted operation between replacements. If rechargeable method is preferred, any off-the-shelf high capacity Ni-MH rechargeable batteries can be used in conjunction with the in-house designed wired and wireless charging stations, fully interchangeable

Abundant Programmable Functions - All functions and settings are easily set via pushbuttons, dipswitches, jumpers, and in-house designed programmer unit. Customized functions can also be added upon request.

Full Systems Compatibility - The software and hardware are fully compatible regardless of model type, minimizing spare parts inventory. The transmitters are also backward compatible with all EX Gen1 receivers.

Pitch & Catch Operation - This standard-equipped function allows two operators controlling from opposite ends of a crane or equipment.

Tandem Operation - This function allows one operator controlling two cranes at the same time via a 3-position A/B/A+B rotary select switch. A special tandem output is provided for external tandem box connection.

Random Access Operation - This function allows multiple operators randomly controlling multiple cranes on a first come - first served basis.

Multiple Receivers Operation - This function allows one operator controlling up to ten receivers or equipment at the same time.

Worldwide Approvals - All systems are fully tested and certified in accordance with the FCC Part-15 Rules and European Safety Standards, such as the EN 60204-32 and EN 13849-1 Category PLd.

Labels & Accessories - Each system is standard-equipped with pushbutton labels, waist belt, vinyl casing, receiver mounting bracket, and output cable. Magnet mount, belt clip, lanyard, rubber guard, miniature indicator light & buzzer, charging stations and TAC are optional

EX2 SERIES

General Specifications

Frequency Range:	433MHz, 863MHz, 921MHz	**Transmitter Dimensions:**	152mm x 70mm x 44mm (Flex 4 models)
Modulation:	Digital Frequency Modulation		175mm x 70mm x 44mm (Flex 6 models)
Encoding / Decoding Reference:	Microprocessor Controlled		198mm x 70mm x 44mm (Flex 8 models)
Operating Range:	>100 Meters / 300 Feet		244mm x 70mm x 44mm (Flex 12 models)
Frequency Control:	Synthesized PLL	**Receiver Dimensions:**	196mm x 149mm x 85mm (Flex 4 & 6 models)
Responding Time:	40ms (average)		260mm x 204mm x 83mm (Flex 8 & 12 models)
Receiver Sensitivity:	-116dBm		120mm x 90mm x 55mm (MRX)
Transmitter Voltage:	3.0VDC	**Transmitter Weight:**	249g / 8.8oz include batteries (Flex 4 models)
Output Contact Rating:	250VAC @ 8A		270g / 9.5oz include batteries (Flex 6 models)
Available Voltages:	24 ~ 48VAC @ 50/60Hz		292g / 10.3oz include batteries (Flex 8 models)
	100 ~ 460VAC @ 50/60Hz		341g / 12.0oz include batteries (Flex 12 models)
	9 ~ 36VDC	**Receiver Weight:**	1.76kg / 3.8lb include cable (Flex 4 & 6 models)
Enclosure Rating:	IP66 / NEMA4		3.15kg / 6.9lb include cable (Flex 8 & 12 models)
Operating Temperature:	-25oC ~ 75oC / -13oF ~ 167oF		900g / 2.0lb include cable (MRX)

Standard Models

Flex 4ES2:	Four (4) one step/speed pushbuttons	**Flex 4EX2:**	Four (4) two steps/speeds pushbuttons
Flex 6ES2:	Six (6) one step/speed pushbuttons	**Flex 6EX2:**	Six (6) two steps/speeds pushbuttons
Flex 8ES2:	Eight (8) one step/speed pushbuttons	**Flex 8EX2:**	Eight (8) two steps/speeds pushbuttons
Flex 12ES2:	Twelve (12) one step/speed pushbuttons	**Flex 12EX2:**	Twelve (12) two steps/speeds pushbuttons

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