



Limitless™  
Wireless Operator Interface  
**WOI Series**



# Limitless™ WOI Series

## Wireless Operator Interface

The Limitless™ product line extends to include the wireless operator interface. With momentary or maintained contacts, the wireless operator interface (WOI) can be used by an operator to provide control via a pushbutton or another user-chosen operator type (i.e. 22 mm rotary switch, 22 mm key switch, etc.). The WOI Series adds a human interface device to the product-driven interfaces of Limitless™ switches and receivers – wireless control from both person and position.

The WOI Series is especially beneficial for remote control and monitoring applications where wiring or wire maintenance is not physically possible or economically feasible. Combining this greater flexibility with proven harsh-duty packaging can result in increased efficiencies and ease in establishing a remote operator for use in a variety of applications, including turning equipment or devices on or off, opening and closing doors/gates, stopping a production conveyor, indicating the need for service, and more.

### **What makes our wireless solutions better?**

- Enables control and/or notification in remote parts of application/machinery/manufacturing plants, where wiring is too costly or not possible
- Flexibility for users to choose and install their desired 22 mm operator type (i.e. 22 mm rotary switch, 22 mm key switch, and more)
- Ability to reconfigure and network multiple interfaces, or point-to-point with personalized addresses which allows for adding, subtracting, or relocating Limitless™ inputs easily
- Reduced installation/maintenance costs with no wiring to Limitless™ switches, conduit, strain relief, clips, connectors, junction boxes, etc.
- Eliminates issues with wire connection integrity on moving equipment



INDUSTRY STANDARD  
VALUE • RELIABLE

# Features and Benefits

## WIRELESS DESIGN

Radio (license-free and global): WPAN 802.15.4, 2.4 GHz, point-to-point to deliver **reliable, flexible, and secure wireless transmission**. Enables operator control through the use of 22 mm pushbuttons from remote locations where wiring is too costly or not practical (up to 305 m [1000 ft]).

## WELL-SUITED FOR TOUGH ENVIRONMENTS

WOI Series features an **IP65 sealed** aluminum enclosure with direct or remote mount antenna options.

*Range of 305 m [1000 ft]*

## REMOTE CONTROL AND MONITORING

License-free RF wireless protocol standards (IEEE 802.15.4) allow for remote control and monitoring of processes and equipment. **Designed for global availability**, the WOI offers a wide variety of Limitless™ inputs with simple and universal PLC connections.

*Consumes ultra-low power to prolong battery life*

## DESIGN OPTIONS

End users may **install a desired operator** (22 mm rotary switch, key switch, etc.) or utilize one of Honeywell's pushbutton options: 22 mm flush, 29 mm mushroom, or 40 mm mushroom (push-pull) round pushbutton. Offers the ability to be used in conjunction with Limitless™ switches configured on a single Limitless™ receiver.

## RECONFIGURABLE

**Able to reconfigure** multiple WOI inputs which easily allows for adding, subtracting, or relocating of Limitless™ WOI switches. **Eliminates issues with wire connection integrity** on moving equipment.

## REDUCES COSTS

**Reduces installation/maintenance costs** with no wires, conduit, strain relief, clips, connectors, connection boxes, etc.

# Potential Applications

with elements of control, notification, and/or setup



## INDUSTRIAL

- CNC machinery
- Door/Gate action
- Material handling
- Presses
- Quality control functions
- Stop/Start machinery
- Valve/Solenoids
- Conveyors
- Lifts
- Motor drives
- Pumps
- Specialty machines
- Stop/Start production

## TRANSPORTATION

- Agricultural equipment
- Movable machinery

Table 1. Specifications

















Characteristic	Parameter
Series name	WOI Series
Product type	Limitless™ Operator Interface Switches
Availability	Global, license-free bands
Operating force	Momentary pushbutton: 6,2 N ±2 N [1.4 lb ±0.45 lb] Maintained pushbutton: 7,0 N ±2 N [1.6 lb ±0.45 lb]
Actuator type	Pushbutton operators: 22 mm round flush momentary 29 mm mushroom head momentary 40 mm mushroom head maintained (push-pull); No 22 mm pushbutton supplied, user provides suitable 22 mm pushbutton product with contact block
Actuator/Contact blocks (if user supplied)	22 mm switch design (i.e. 22mm rotary switch, 22mm key switch, etc.) /gold contact, normally open and normally closed contact blocks capable of reliably controlling a 30 mA @ 3.6 Vdc electrical load
Actuator colors	Black, Green, Red*, Yellow * not available for the 29 mm mushroom and 40 mm mushroom (push-pull) pushbuttons
Housing material	Powder coated aluminum
Radio	WPAN 802.15.4; 2.4 GHz
Antenna type	Direct or remote mount antenna options; Omni directional
Signal range*	Nominal 305 m [1000 ft] clear line of sight between Limitless™ WOI switch and monitor/receiver when using 2.2 dBi integral antennas
Battery	3.6 Vdc Lithium Thionyl Chloride; 2/3 AA size (Est. life >1.5 years) Manufactured by Green Energy p/n ER14335M
Sealing	IP65
EMC	Latest applicable standards: EN 300 328, V1.7.1; EN 61326-1 (2006); EN 301 489-1, V1.8.1; EN 301 489-17, V2.1.1
Shock	IEC 60068-2-27; half sine, 50 g, 6 mS, 3 axis
Vibration	IEC 60068-2-6; 10 Hz to 58 Hz w/ 1,50 mm peak-to-peak, 58-500 Hz @ 10g
Operating temperature	-25 °C to 50 °C [-13 °F to 122 °F]
Agency approvals and standards	FCC 15.247 Industry Canada RSS 210 ETSI, CE mark ACMA, C-Tick mark

\* Actual range will vary depending upon antennas, cables, and site topography.



# Limitless™ Wireless Operator Interface

## WOI SERIES ORDER GUIDE (STANDARD LISTINGS)

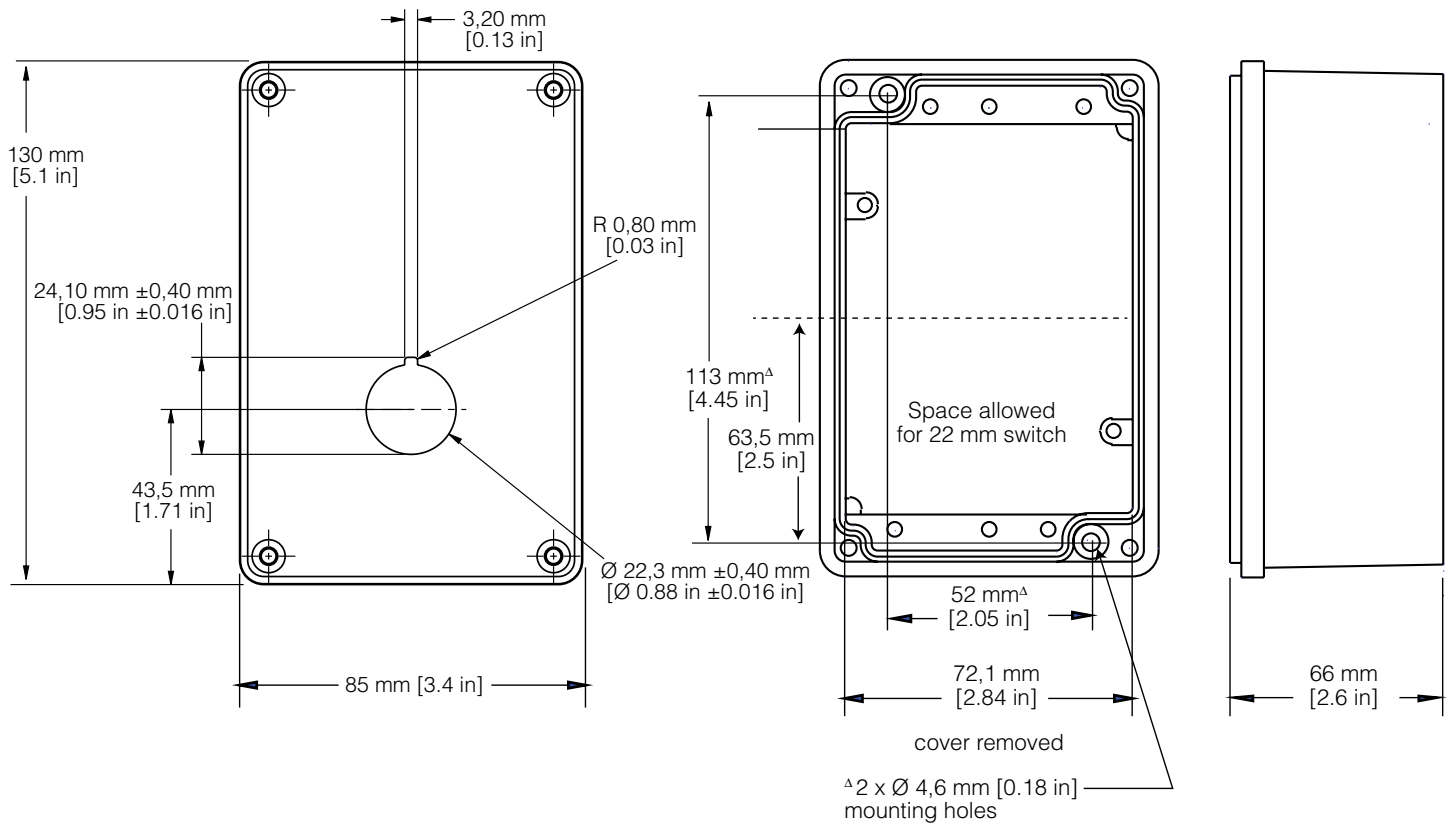
	Part number	Description		Part number	Description
	<b>WOI1A00APAG</b>	Limitless™ WOI, no antenna, 22 mm round flush momentary green pushbutton, for use in US/Canada		<b>WOI1A00BPAG</b>	Limitless™ WOI, no antenna, 22 mm round flush momentary green pushbutton, for use in all other approved countries
	<b>WOI1A00APAR</b>	Limitless™ WOI, no antenna, 22 mm round flush momentary red pushbutton, for use in US/Canada		<b>WOI1A00BPAR</b>	Limitless™ WOI, no antenna, 22 mm round flush momentary red pushbutton, for use in all other approved countries
	<b>WOI1A11APAG</b>	Limitless™ WOI, 0 dBi straight antenna, 22 mm round flush momentary green pushbutton, for use in US/Canada		<b>WOI1A11BPAG</b>	Limitless™ WOI, 0 dBi straight antenna, 22 mm round flush momentary green pushbutton, for use in all other approved countries
	<b>WOI1A11APAR</b>	Limitless™ WOI, 0 dBi straight antenna, 22 mm round flush momentary red pushbutton, for use in US/Canada		<b>WOI1A11BPAR</b>	Limitless™ WOI, 0 dBi straight antenna, 22 mm round flush momentary red pushbutton, for use in all other approved countries
	<b>WOI1A00APBY</b>	Limitless™ WOI, no antenna, 29 mm mushroom head momentary yellow pushbutton, for use in US/Canada		<b>WOI1A00BPBY</b>	Limitless™ WOI, no antenna, 29 mm mushroom head momentary yellow pushbutton, for use in all other approved countries
	<b>WOI1A00APCY</b>	Limitless™ WOI, no antenna, 40 mm maintained yellow pushbutton, for use in US/Canada		<b>WOI1A00BPCY</b>	Limitless™ WOI, no antenna, 40 mm maintained yellow pushbutton, for use in all other approved countries
	<b>WOI1A11APBY</b>	Limitless™ WOI, 0 dBi straight antenna, 29 mm mushroom head momentary yellow pushbutton, for use in US/Canada		<b>WOI1A11BPBY</b>	Limitless™ WOI, 0 dBi straight antenna, 29 mm mushroom head momentary yellow pushbutton, for use in all other approved countries
	<b>WOI1A11APCY</b>	Limitless™ WOI, 0 dBi straight antenna, 40 mm maintained yellow pushbutton, for use in US/Canada		<b>WOI1A11BPCY</b>	Limitless™ WOI, 0 dBi straight antenna, 40 mm maintained yellow pushbutton, for use in all other approved countries

# WOI Series

## PRODUCT NOMENCLATURE

WOI	1	A	00	A	PA	G	
Module type	GEN code	RF code	Antenna type code	Country use code	Actuator type	Actuator color	Specials
<b>WOI Series Operator Interface</b>	<b>1</b> Version 1	<b>A</b> 2.4 GHz; IEEE 802.15.4	<b>00</b> No antenna; RP-SMA connector jack	<b>A</b> US, Canada Mexico	None; open hole in enclosure	None	
			<b>02</b> 2.2 dBi omni w/switch mount; tilt/swivel	<b>B</b> All other approved countries <sup>1,2</sup>	<b>PA</b> Pushbutton only 22 mm round flush button, momentary	<b>B</b> Black	
			<b>11</b> 0 dBi omni w/ switch mount; str. design	<sup>1</sup> Some countries require specific communication certifications. Contact Honeywell for existing certification information.	<b>PB</b> Pushbutton only <sup>3</sup> 29 mm mushroom head, momentary	<b>G</b> Green	
				<sup>2</sup> If Limitless™ devices are used on machinery that may be shipped globally, use Country Code "B".	<b>PC</b> Pushbutton only <sup>3</sup> 40 mm mushroom head, maintained/push-pull	<b>R</b> Red	
					<sup>3</sup> There will be the following specific note on the "I" & "E" drawing: NOT AVAILABLE IN RED	<b>Y</b> Yellow	

## PRODUCT DIMENSIONS



# Limitless™ Wireless Operator Interface

## ANTENNA OPTIONS



**WAN07RSP**  
straight design,  
direct mount  
connector



**WAN01RSP**  
straight design,  
direct mount  
connector



**WAN02RSP**  
tilt & swivel design,  
direct mount  
connector



**WAN05RSP &  
WAMM100RSP-005**  
T/S, magnetic mount



**WAN03RSP**  
flat design,  
adhesive mount



**WAN06RNJ**  
straight design,  
bracket mount



**WPB1**  
WPMM mounting  
bracket



**WAN10RSP**  
straight mobile  
antenna,  
magnetic mount



**WAN11RSP**  
low-profile dome antenna,  
through-hole screw mount



**WAN09RSP**  
low-profile mobile antenna,  
magnetic mount

## This Honeywell datasheet supports the following Limitless WOI Series Listings

WOI1A00A	WOI1A02A	WOI1A11A
WOI1A00APAB	WOI1A02APAB	WOI1A11APAB
WOI1A00APAG	WOI1A02APAG	WOI1A11APAG
WOI1A00APAR	WOI1A02APAR	WOI1A11APAR
WOI1A00APAY	WOI1A02APAY	WOI1A11APAY
WOI1A00APBY	WOI1A02APBY	WOI1A11APBY
WOI1A00APCY	WOI1A02APCY	WOI1A11APCY
WOI1A00B	WOI1A02B	WOI1A11B
WOI1A00BPAB	WOI1A02BPAB	WOI1A11BPAB
WOI1A00BPAG	WOI1A02BPAG	WOI1A11BPAG
WOI1A00BPAR	WOI1A02BPAR	WOI1A11BPAR
WOI1A00BPAY	WOI1A02BPAY	WOI1A11BPAY
WOI1A00BPBY	WOI1A02BPBY	WOI1A11BPBY
WOI1A00BPCY	WOI1A02BPCY	WOI1A11BPCY

## ADDITIONAL INFORMATION

The following associated literature is available on the Honeywell web site at [sensing.honeywell.com](http://sensing.honeywell.com):

- Product installation instructions
- Product range guide
- Product brochure
- White Paper: Limitless™ Switches Offer Unlimited Benefits

### WARNING

#### PERSONAL INJURY

**DO NOT USE** these products as safety or emergency stop devices or in any other application where failure of the product could result in personal injury.

**Failure to comply with these instructions could result in death or serious injury.**

### WARNING

#### MISUSE OF DOCUMENTATION

- The information presented in this product sheet is for reference only. Do not use this document as a product installation guide.
- Complete installation, operation, and maintenance information is provided in the instructions supplied with each product.

**Failure to comply with these instructions could result in death or serious injury.**

## WARRANTY/REMEDY

Honeywell warrants goods of its manufacture as being free of defective materials and faulty workmanship. Honeywell's standard product warranty applies unless agreed to otherwise by Honeywell in writing; please refer to your order acknowledgement or consult your local sales office for specific warranty details. If warranted goods are returned to Honeywell during the period of coverage, Honeywell will repair or replace, at its option, without charge those items it finds defective. **The foregoing is buyer's sole remedy and is in lieu of all other warranties, expressed or implied, including those of merchantability and fitness for a particular purpose. In no event shall Honeywell be liable for consequential, special, or indirect damages.**

While we provide application assistance personally, through our literature and the Honeywell website, it is up to the customer to determine the suitability of the product in the application.

Specifications may change without notice. The information we supply is believed to be accurate and reliable as of this printing. However, we assume no responsibility for its use.



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