

**Limitless™ Wireless Solutions**

**Honeywell**



**Imagine a world without wires.  
What would you do with more freedom?**



It's time to retire the wire. To give your best ideas free rein. Honeywell's Limitless™ Series of wireless limit switches and receivers allows you to go farther, work smarter, and explore more possibilities than ever before.

Honeywell's Limitless™ series of switch solutions is leading the way. Honeywell Sensing and Control developed this technology to be a cutting-edge, cost-saving solution. That innovation starts whether you're retrofitting into an existing industrial or transportation application, or starting a new design. Now you have the freedom to push your designs and applications further and expand your vision.

For far too long, technology has been tied to the same old way of transmitting and connecting. But there's a price to pay for clinging to wired technology. There's an intangible cost in man-hours and missed production hours. And there are tangible costs — actual wear-and tear on equipment wiring and connections that can cause complete disruption of your operation.

Imagine how much could be saved once your best ideas were given free rein...

It's time to discover the possibilities.  
Choose wireless Limitless™  
switches to give your ideas free rein.

**More distance** - Limitless™ devices have up to a 305 m [1000 ft] line-of-sight range without using repeaters, depending on antenna type

**More durability** - Limitless™ Series offerings will include versions with an all-metal body and drive train, low-temperature capability, and/or enclosure with an anti-corrosion epoxy coating

**More savings** - Limitless™ switches can greatly reduce the costs of wiring, installation, and maintenance for all devices and equipment

**More security** - Limitless™ products conform to the international IEEE 802.15.4 standard and feature 16-bit address and 128-bit AES security keys

**More flexibility** - Since you're no longer tethered by wire, you can reconfigure and network multiple switches, easily allowing addition, subtraction, or relocation of Limitless™ switches

**More diagnostics** - Limitless™ user-friendly software provides information on battery health, and signal strength for each specific input

**More standard options** - Limitless™ products use a globally license-free, 802.15.4 RF radio and commercially available batteries for easy replacement anywhere in the world

# Limitless™ Limit Switch Series

WGLA Global Limit Switches

WLS Heavy-Duty Limit Switches

Honeywell's Limitless™ product line combines the best of Honeywell's global limit switches with the latest commercial state-of-the-art wireless technology. Wireless-enabled limit switches can be used for position sensing and presence/absence detection for an endless number of applications.

The Limitless™ Series is especially beneficial for remote 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 for machines, equipment, OEMs, and operators.

## FEATURES

### Wireless Design

- Radio (license-free and global\*): WPAN 802.15.4, 2.4 GHz, point-to-point
- FCC 15, IC, ACMA, COFETEL, IDA, ETSI, WPC, SRRC, KCC, and ANATEL (see specific product series for applicable approvals)
- RoHS compliant
- EMI resistance protects against external interference
- In excess of 305 m [1000 ft] line-of-sight communication
- Reliable, flexible, and secure wireless transmission
- Standard replaceable battery with ultra-low power consumption
- Direct or remote mount antenna options

### WGLA Series Features

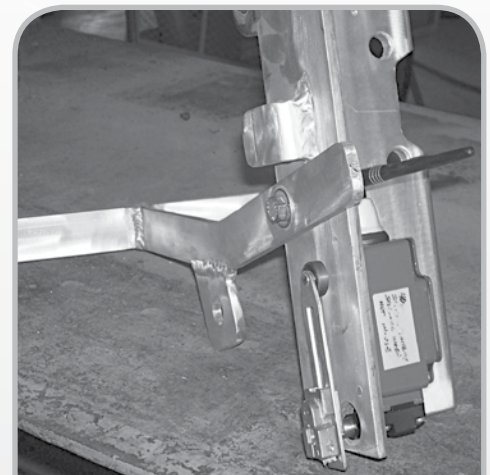
- EN50041 metal enclosure
- IP67; NEMA 1,4,12,13
- Multiple operating heads and lever options
- Modular construction of components

### WLS Series Features

- EN 50041 metal enclosure
- IP67/IP68; NEMA 1, 3, 4, 6, 6P, 12, 13
- Unique all-metal drive train
- Twin shaft seals (rotary)
- Zinc head and body are phosphate treated and epoxy finished making it less susceptible to effects from environmental exposure
- Full complement of operating heads and levers
- Chemical resistant fluorocarbon seals (optional)

## BENEFITS

- Enables wireless presence/absence detection in applications/machinery where wiring is challenging or not feasible
- Integration of existing wireless technology with the superior reliability of Honeywell's MICRO SWITCH™ limit switch series
- Ability to reconfigure and network multiple switches, easily allowing addition, subtraction or relocation of Limitless™ switches in the application
- Reduces installation/maintenance costs with no wires, conduit, strain relief, clips, connectors, or connection boxes
- Output options
  - Panel-mount monitor: visual, audible (buzzer), one NPN output
  - DIN-mount receiver: visual, 14 NPN/PNP-type outputs
- Consumes ultra-low power to prolong battery life (replaceable)
- RF board operating in 2.4 GHz globally license-free frequency band; WPAN 802.15.4
- SIL reliability data available upon request



## APPLICATIONS

- Construction/ag machines
- Conveyors
- Crane boom/jib/skew position
- Door position
- Grain diverters or flaps
- Hose attachment verification
- Lifts
- Material handling
- Movable machinery
- Presses
- Remote or temporary equipment
- Specialty machines
- Valve position

\*Some countries require specific communication certifications. Contact Honeywell for existing certification information.



**WGLA Series**



**WLS Series**

Limitless™ global limit switches	<b>Product type</b>	Limitless™ heavy-duty limit switches
Global, license-free RF bands*	<b>Availability</b>	Global, license-free RF bands*
Reference WGLA installation drawing	<b>Operating characteristics</b>	Reference WLS installation drawing
Side rotary, top plunger, top roller, top roller lever	<b>Actuator</b>	Side rotary, top plunger, side plunger, top roller plunger, top adjustable plunger, wobble stick
Rotary lever included w/side rotary; other lever options available	<b>Lever type</b>	Many rotary lever options available
Zinc head and body are phosphate treated and epoxy finished	<b>Housing material</b>	Zinc head and body are phosphate treated and epoxy finished
EN 50041	<b>Housing type</b>	WLS (EN 50041)
WPAN 802.15.4; 2.4 GHz point-to-point; specific country communication agency approval required	<b>Radio</b>	WPAN 802.15.4; 2.4 GHz point-to-point; specific country communication agency approval required
Direct or remote-mount antenna options; omni-directional	<b>Antenna type</b>	Direct or remote-mount antenna options; omni-directional
In excess of 305 m [1000 ft] line-of-sight communication between Limitless™ switches and monitor/receiver when using 2.2dBi integral antenna	<b>Signal range</b>	In excess of 305 m [1000 ft] line-of-sight communication between Limitless™ switches and monitor/receiver when using 2.2dBi integral antenna
3.6 Vdc Lithium Thionyl Chloride; 2/3 AA size manufactured by Green Energy p/n ER14335M; Honeywell p/n WBT1	<b>Battery</b>	3.6 Vdc Lithium Thionyl Chloride; 2/3 AA size manufactured by Green Energy p/n ER14335M; Honeywell p/n WBT1
IP67; NEMA 1, 4, 12, 13	<b>Sealing</b>	IP67, IP68; NEMA 1, 3, 4, 6, 6P, 12, 13
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	<b>EMC</b>	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
IEC 60068-2-27; half sine, 10 g, 6 mS, 3 axis	<b>Shock</b>	IEC 60068-2-27; half sine, 50 g, 6 mS, 3 axis
IEC 60068-2-6; 10 Hz to 500 Hz w/ 0,35 mm peak-to-peak, 58 Hz to 500 Hz, 5 g	<b>Vibration</b>	IEC 60068-2-6; 10 Hz to 58 Hz w/ 0,35 mm peak-to-peak, 58 Hz to 500 Hz, 5 g
-40 °C to 85 °C [-40 °F to 185 °F] (side rotary and side plunger) -25 °C to 85 °C [-13 °F to 185 °F] (all other actuators)	<b>Operating temperature</b>	-40 °C to 85 °C [-40 °F to 185 °F] -30 °C to 85 °C [-22 °F to 185 °F](wobble sticks)
FCC 15.247 Industry Canada RSS 210 ETSI, CE mark ACMA, C-Tick mark COFETEL IDA; ANATEL; SRRC; KCC; WPC	<b>Agency approvals and standards</b>	FCC 15.247 Industry Canada RSS 210 ETSI, CE mark ACMA, C-Tick mark COFETEL IDA; ANATEL; SRRC; KCC; WPC

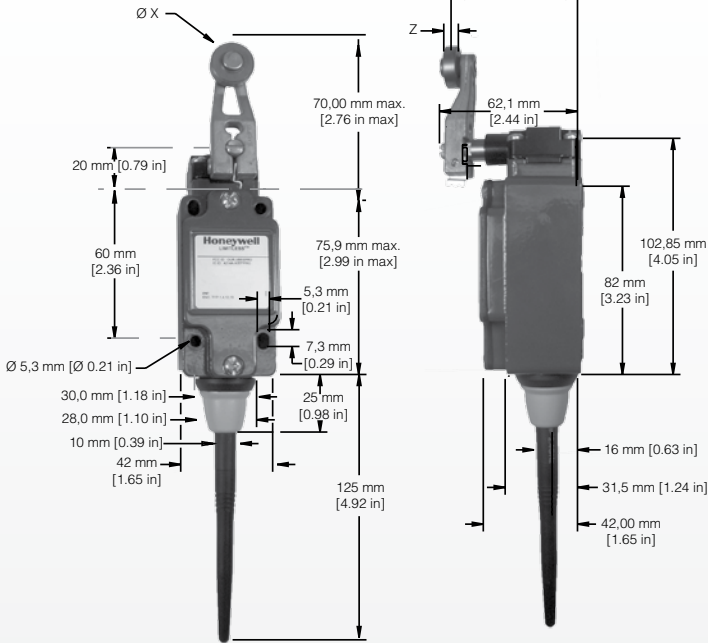
\*Some countries require specific communication certifications.  
Contact Honeywell for existing certification information.

# Limitless™ Limit Switch Series

## WGLA and WLS Series

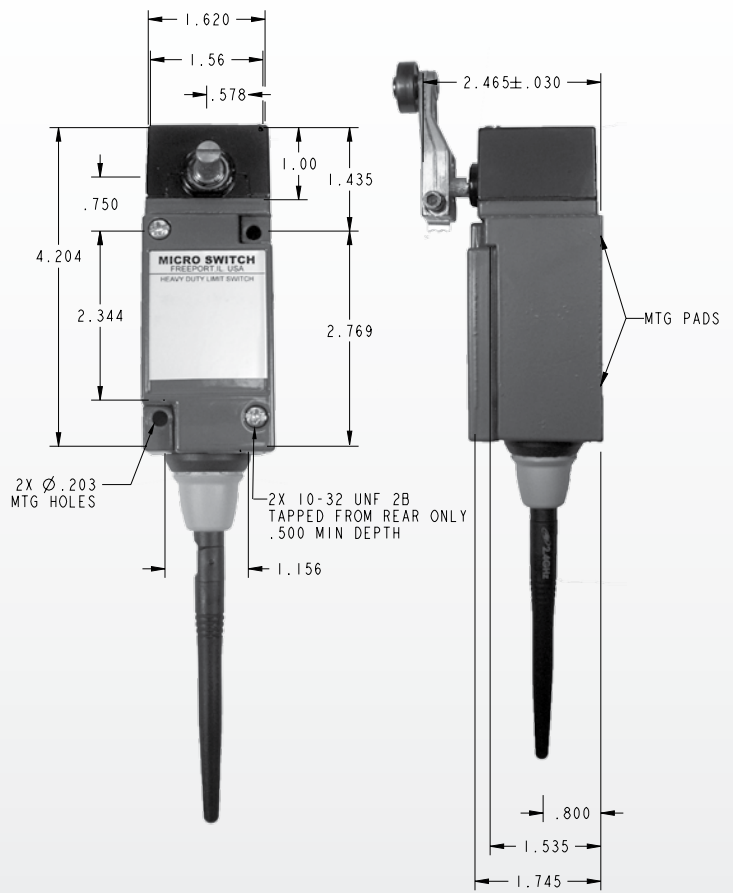
### Dimensions and Ordering Options

#### WGLA Series



Lever	Roller Material	X Dim	Y Dim	Z Dim
GLZ51A	Nylon	19,1 mm [0.75 in]	55,9 mm [2.2 in]	6,4 mm [0.25 in]
GLZ51B	Steel	19,1 mm [0.75 in]	55,9 mm [2.2 in]	6,4 mm [0.25 in]
GLZ51T	Stainless Steel	19,1 mm [0.75 in]	56,8 mm [2.24 in]	8,8 mm [0.35 in]
GLZ51Y	Rubber	50,0 mm [1.97 in]	66,1 mm [2.60 in]	10,0 mm [0.39 in]

#### WLS Series




#### WGLA NOMENCLATURE

WGLA	1	A	00	A	A	1	A	3
Switch type	Gen Code	RF Code	Antenna type code	Country use code	Operating head code	Lever code <sup>4</sup>	Roller code mm[in]	Modification code
WGLA Series Wireless	1 Version 1	A 2.4 GHz; IEEE 802.15.4	00 No antenna; RP-SMA connector jack	A US, Canada, Mexico	A Side rotary, momentary	Not applicable	Not applicable	Not applicable
			01 2.2 dBi omni w/switch mount; straight design	B All other approved countries <sup>1, 2, 3</sup>	B Top pin plunger	1 Standard fixed length	A 19 x 6.35 [0.75 x 0.25] nylon	3 Head assembled with actuator to right side
			02 2.2 dBi omni w/switch mount; tilt/swivel	*Use with antenna type codes 00-03, 05, 10, 11 only; usage also allowed in Country Code A.  *Some countries require specific communication certifications. Contact Honeywell for existing certification information.  *If Limitless devices are used on machinery that may shipped globally, use country code "B".	C Top roller plunger	2 Adjustable roller	B 19 x 6.35 [0.75 x 0.25] steel	4 Head assembled with actuator to left side
			03 3.0 dBi omni w/remote adhesive mount 9.8 ft cable		D Top roller lever	3 Yoke roller	D 38.1 x 6.35 [1.5 x 0.25] nylon	5 Head assembled with actuator to mounting surface
			04 5.5 dBi omni w/remote mag. mount, tilt/swivel, 5 ft cable		4 Adjustable rod	4 Adjustable rod	J 200 mm aluminum adjustable rod	6 Roller perpendicular to mounting surface
			05 5.5 dBi omni w/remote mag. mount, tilt/swivel, 10 ft cable		5 Offset	5 Offset	K 140 mm aluminum adjustable rod	
			06 9.0 dBi omni w/remote mag. mount, tilt/swivel 5 ft cable				N 318 mm stainless steel adjustable rod	
			07 9.0 dBi omni w/remote mag. mount, tilt/swivel 10ft cable				W 40.0 x 12.7 [1.5 x 0.5] rubber	
			08 8.0 dBi omni w/remote bkt. mount, str. design 3 ft cable				Y 50.9 x 12.7 [2.0 x 0.5] rubber	
			09 8.0 dBi omni w/remote bkt. mount, str. design 11 ft cable				T 19 x 8.76 [0.75 x 0.345] stainless steel	
			10 2.2 dBi omni w/remote mag. mount, tilt/swivel 10 ft cable					
			11 0 dBi omni w/switch mount; straight design					

NOTE: Not all combinations available. For further information on establishing any of the above listings, please contact Honeywell Sensing and Control or your local sales office.

## WLS NOMENCLATURE

WLS	1	A	00	A	A	1	3
Switch type	Gen Code	RF Code	Antenna type code	Country use code	Operating head code	Actuator code	Modification code
<b>WLS Series</b> Wireless	<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 <b>B</b> All other approved countries <sup>1, 2, 3</sup>	<b>A</b> Side rotary, momentary <b>C</b> Top plunger, plain <b>D</b> Top plunger, roller <b>E</b> Side plunger, momentary <b>J</b> Wobble stick <sup>4</sup> <b>N</b> Side rotary, maintained <b>V</b> Top plunger, adjustable	See WLS actuator code table for details.  Actuators for operating head code "A" only, insert actuator code from table below.  OR  Order actuator catalog listing separately for reduced delivery time.	Not applicable <b>3</b> Head assembled with actuator to right side <b>4</b> Head assembled with actuator to left side <b>5</b> Head assembled with actuator to mounting surface <b>6</b> Roller perpendicular to mounting surface
			<b>01</b> 2.2 dBi omni w/switch mount; straight design <b>02</b> 2.2 dBi omni w/switch mount; tilt/swivel <b>03</b> 3.0 dBi omni w/remote adhesive mount 9.8 ft cable <b>04</b> 5.5 dBi omni w/remote mag. mount, tilt/swivel 5 ft cable <b>05</b> 5.5 dBi omni w/remote mag. mount, tilt/swivel 10ft cable <b>06</b> 9.0 dBi omni w/remote mag. mount, tilt/swivel 5 ft cable <b>07</b> 9.0 dBi omni w/remote mag. mount, tilt/swivel 10ft cable <b>08</b> 8.0 dBi omni w/remote bkt. mount, str. design 3 ft cable <b>09</b> 8.0 dBi omni w/remote bkt. mount, str. design 11 ft cable <b>10</b> 2.2 dBi omni w/remote mag. mount, tilt/swivel 10 ft cable <b>11</b> 0 dBi omni w/switch mount; straight design	<sup>1</sup> Use with antenna type codes 00 - 03, 05, 10, 11 only; usage also allowed in Country Code A.  <sup>2</sup> Some countries require specific communication certifications. Contact Honeywell for existing certification information.  <sup>3</sup> If Limitless devices are used on machinery that may shipped globally, use country code "B".  <sup>4</sup> See page 14 for more detail.			

NOTE: Not all combinations available. For further information on establishing any of the above listings, please contact Honeywell Sensing and Control or your local sales office.

**EXAMPLE: WLS1A01AA1A (ordered with lever included)**  
Limitless™ heavy-duty limit switch, 2.2 dBi straight antenna, momentary, standard lever with nylon roller

**EXAMPLE: WLS1A01AA (order lever separately)**  
Limitless™ heavy-duty limit switch, 2.2 dBi straight antenna, momentary, LSZ51A (standard lever with nylon roller) ordered separately,

## WLS SERIES ACTUATOR CODE TABLE (see page 9 for more detail)

Code	Catalog Listing	Material	Roller Dia. (in)	Roller Width (in)	Roller Mounting
<b>Fixed 1.5 inch radius</b>					
1		Rollerless	n/a	n/a	n/a
1A	LSZ51A	Nylon	0.75	0.25	Front
1B	LSZ51B	Steel	0.75	0.25	Front
1C	LSZ51C	Nylon	0.75	0.25	Back
1D	LSZ51D	Steel	0.75	0.25	Back
1F	LSZ51F	Nylon	1.0	0.520	Front
1G	LSZ51G	Nylon	1.5	0.25	Front
1J	LSZ51J	Nylon	1.0	0.520	Back
1L	LSZ51L	Ball bearing	0.75	0.25	Back
1M	LSZ51M	Nylon	0.75	1.25	Back
1N	LSZ51N	Steel	0.75	1.25	Front
1P	LSZ51P	Nylon	0.75	0.50	Front
<b>Adjustable 1.5 in to 3.5 in radius</b>					
2		Rollerless	n/a	n/a	n/a
2A	LSZ52A	Nylon	0.75	0.25	Back
2B	LSZ52B	Steel	0.75	0.25	Back
2C	LSZ52C	Nylon	0.75	0.25	Front
2D	LSZ52D	Steel	0.75	0.25	Front
2E	LSZ52E	Nylon	0.75	1.30	Front
2J	LSZ52J	Nylon	1.0	0.50	Front
2K	LSZ52K	Nylon	1.5	0.25	Front
2L	LSZ52L	Ball bearing	0.75	0.25	Front
2M	LSZ52M	Nylon	2.0	0.25	Front
2N	LSZ52N	Nylon	0.75	0.50	Front
<b>Yoke – 1.5 in radius</b>					
3A	LSZ53A	Nylon	0.75	0.25	Front/Back
3B	LSZ53B	Steel	0.75	0.25	Front/Back
3D	LSZ53D	Steel	0.75	0.25	Front/Front

Code	Catalog Listing	Material	Roller Dia. (in)	Roller Width (in)	Roller Mounting
<b>Yoke – 1.5 in radius , continued</b>					
3E	LSZ53E	Nylon	0.75	0.25	Back/Front
3M	LSZ53M	Nylon	0.75	1.25	Back/Front
3P	LSZ53P	Steel	0.75	0.25	Back/Back
3S	LSZ53S	Nylon	0.75	0.25	Back/Back
<b>Rod</b>					
4		Hub only	n/a	n/a	n/a
4M	LSZ54M	Alum, 5.5 in	n/a	n/a	n/a
4N	LSZ54N	Stainless, 13 in	n/a	n/a	n/a
4R	LSZ54R	Spring Wire, 12 in	n/a	n/a	n/a
4V	LSZ54V	Flex cable, 4.8 in	n/a	n/a	n/a
<b>Offset – 1.5 in radius</b>					
5		Rollerless	n/a	n/a	n/a
5A	LSZ55A	Nylon	0.75	0.25	Back
5B	LSZ55B	Steel	0.75	0.25	Back
5C	LSZ55C	Nylon	0.75	0.25	Front
5D	LSZ55D	Steel	0.75	0.25	Front
5E	LSZ55E	Nylon	0.75	0.50	Front
5K	LSZ55K	Nylon	1.5	0.25	Front
<b>Wobble stick</b>					
7A	LSZ1JGA	Delrin™ rod, 5.5	n/a	n/a	n/a
7M	LSZ1JGM	Spring wire, 13.0	n/a	n/a	n/a
7N	LSZ1JGN	Cable, 5.5 in.	n/a	n/a	n/a
<b>Short fixed - 1.3 in radius</b>					
9A	LSZ59A	Nylon	0.75	0.25	Front
9B	LSZ59B	Steel	0.75	0.25	Front
9C	LSZ59C	Nylon	0.75	0.25	Back
9D	LSZ59D	Steel	0.75	0.25	Back

# Limitless™ Limit Switch Series

## WGLA Series

### Levers



**GLZ51A**  
fixed rotary lever,  
nylon roller, front



**GLZ51B**  
fixed rotary lever,  
steel roller, front



**GLZ55A**  
fixed rotary offset  
lever, nylon roller,  
front



**GLZ55B**  
fixed rotary offset  
lever, steel roller, front



**GLZ53A**  
yoke lever, nylon rollers,  
front placement



**GLZ53B**  
yoke lever, steel rollers,  
front placement



**GLZ52A**  
adj. lever,  
nylon roller, back



**GLZ52B**  
adj. lever,  
steel roller, back



**GLZ52C/D**  
adj. lever,  
nylon & steel roller,  
front



**GLZ54J**  
adjustable rod,  
200 mm aluminum



**GLZ54K**  
adjustable rod,  
140 mm aluminum



**GLZ54N**  
adjustable rod,  
318 mm stainless  
steel

# Limitless™ Limit Switch Series

## WLS Series

### Levers



**LSZ51A**  
fixed rotary lever,  
nylon roller, front



**LSZ51B**  
fixed rotary lever,  
steel roller, front



**LSZ51C**  
fixed rotary lever,  
nylon roller, back



**LSZ51D**  
fixed rotary lever,  
steel roller, back



**LSZ55A**  
through D  
offset lever,  
front & back



**LSZ60**  
one-way  
roller lever



**LSZ53A through D**  
yoke lever, nylon and steel rollers,  
front and back placement



**LSZ52A**  
through D  
adj. lever, nylon &  
steel, front/back



**LSZ52J**  
adjustable lever,  
1-inch nylon roller



**LSZ52K**  
adjustable lever,  
1.5-inch nylon roller



**LSZ54M**  
5.5-inch  
aluminum rod



**LSZ61**  
6-inch  
loop



**LSZ54R**  
12-inch  
spring wire



**LSZ68**  
12-inch rod  
with spring



**LSZ54N**  
13-inch  
stainless steel  
rod

# Limitless™ Limit Switch Series

## WLS Heavy-Duty Limit Switch with Eyelet Pull

Limitless™ WLS Series Heavy Duty Wireless Limit Switches with an eyelet-pull operating head can be used to attach a rope, cable or chain. It also can be used on cranes as an anti-two-block (A2B) switch. The Limitless™ Series benefits remote 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 improved safety for machines, equipment, OEMs, and operators.

### FEATURES

#### Wireless Design

- Radio (license-free and global): WPAN 802.15.4, 2.4 GHz, point-to-point
- FCC 15, IC, ACMA, ETSI, COFETEL, WPC, IDA, ANATEL, SRRC, and KCC
- Up to 1000 ft [305 m] line of sight communication range when used with a Limitless™ WPMM Series wireless monitor or WDRR Series receiver module (sold separately)
- Reliable, flexible, and secure wireless transmission
- Long-life standard replaceable battery
- Direct or remote mount antenna options

#### Mechanical Design

- IP67/IP68; NEMA 1, 4, 6, 6P, 12, 13
- Unique all-metal drive train
- Zinc head and body are phosphate treated and epoxy finished
- Tested to 750 lb of pull force
- Captive head and body screws

### BENEFITS

- Enables presence/absence detection in remote parts of application/machinery, where wiring is an issue or not feasible
- Ability to reconfigure multiple switches that easily allows for adding, subtracting or relocating Limitless™ WLS switches
- Reduces installation/maintenance costs with no wires, conduit, strain relief, clips, connectors, or connection boxes
- Eliminates issues with wire connection integrity on moving equipment
- Consumes ultra-low power to prolong battery life



### APPLICATIONS

- Cranes: A2B (anti-two block) switch
- Rope-pull: door activation switch
- Cable pull for production stop applications (e.g., quality, broken tool, maintenance, out of parts); not applicable to human safety-stop applications

\*Some countries require specific communication certifications. Contact Honeywell for existing certification information.



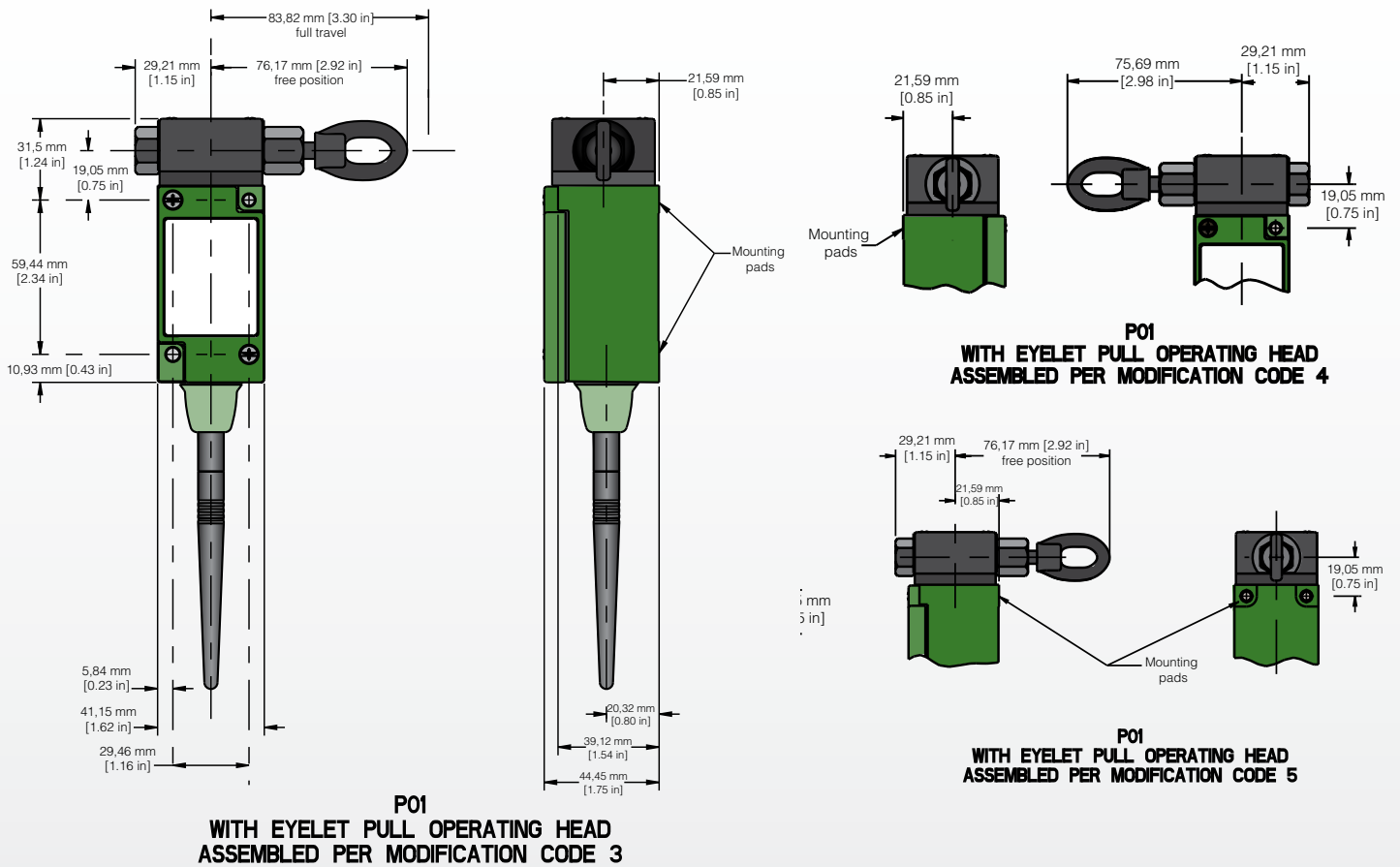
### WLS Series with Eyelet Pull

<b>Product type</b>	Limitless™ Wireless Heavy-Duty Limit Switches
<b>Availability</b>	Global, license-free bands
<b>Operating characteristics</b>	Operating force: 7 lb approx. or 18 lb approx.
<b>Actuator type</b>	Eyelet-pull operating head (pull eyelet in-line with shaft to prevent damage)
<b>Housing material</b>	Zinc head and body are phosphate treated and epoxy finished
<b>Radio</b>	WPAN 802.15.4; 2.4 GHz
<b>Antenna type</b>	RP-SMA jack for direct or remote mount antenna options; omni-directional
<b>Signal range</b>	In excess of 305 m [1000 ft] line-of-sight communication between Limitless™ switches and monitor/receiver when using 2.2 dBi integral antenna
<b>Battery</b>	3.6 Vdc Lithium Thionyl Chloride; 2/3 AA size (Est. life >1yr) Manufactured by Green Energy, part number ER14335M Manufactured by Honeywell, part number WBT1
<b>Sealing</b>	IP67/IP68; NEMA 1, 4, 6, 6P, 12, 13
<b>EMC</b>	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
<b>Shock</b>	IEC 60068-2-27; half sine, 10 g, 6 mS, 3 axis
<b>Vibration</b>	IEC 60068-2-6; 10-500Hz w/ 0,35 mm peak-to-peak, 58-500 Hz- 5g
<b>Operating temperature</b>	-40 °C to 85 °C [-40 °F to 185 °F]
<b>Agency approvals and standards</b>	<ul style="list-style-type: none"> <li>- FCC 15.247: United States of America</li> <li>- IC RSS 210: Canada</li> <li>- ETSI, CE mark: European countries</li> <li>- ACMA, C-TICK: Australia, New Zealand</li> <li>- IDA: Singapore</li> <li>- COFETEL: Mexico</li> <li>- WPC: India</li> <li>- ANATEL: Brazil</li> <li>- SRRC: China</li> <li>- KCC: South Korea</li> </ul>

\*Some countries require specific communication certifications.  
Contact Honeywell for existing certification information.

# Limitless™ Wireless Heavy-Duty Limit Switch with Eyelet Pull

## Dimensions and Ordering Options



### WLS WITH EYELET PULL NOMENCLATURE

WLS	1	A	00	A	A	-	3	P01
Switch type	Gen Code	RF Code	Antenna type code	Country use code	Operating head code	Modification code	Specials	
<b>WLS Series</b> Wireless	<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	<b>Q</b> See specials			<b>P01</b> Eyelet-pull operating head (low force, 7 lb ref.)
			<b>01</b> 2.2 dBi omni w/switch mount; straight design	<b>B</b> All other approved countries <sup>1, 2, 3</sup>		<b>3</b> Head assembled with actuator towards nameplate surface		<b>P02</b> Eyelet-pull operating head (high force, 18 lb ref.)
			<b>02</b> 2.2 dBi omni w/switch mount; tilt/swivel	<sup>1</sup> Use with antenna type codes 00 - 03, 05, 10, 11 only; usage also allowed in Country Code A.		<b>4</b> Head assembled with actuator to right side		
			<b>03</b> 3.0 dBi omni w/remote adhesive mount 9.8 ft cable	<sup>2</sup> Some countries require specific communication certifications. Contact Honeywell for existing certification information.		<b>5</b> Head assembled with actuator to mounting surface		
			<b>04</b> 5.5 dBi omni w/remote mag. mount, tilt/swivel 5 ft cable	<sup>3</sup> If Limitless devices are used on machinery that may be shipped globally, use Country Code "B".				
			<b>05</b> 5.5 dBi omni w/remote mag. mount, tilt/swivel 10 ft cable					
			<b>06</b> 9.0 dBi omni w/remote mag. mount, tilt/swivel 5 ft cable					
			<b>07</b> 9.0 dBi omni w/remote mag. mount, tilt/swivel 10 ft cable					
			<b>08</b> 8.0 dBi omni w/remote bkt. mount, str. design 3 ft cable					
			<b>09</b> 8.0 dBi omni w/remote bkt. mount, str. design 11 ft cable					
			<b>10</b> 2.2 dBi omni w/remote mag. mount, tilt/swivel 10 ft cable					
			<b>11</b> 0 dBi omni w/switch mount; straight design					

NOTE: Not all combinations available. For further information on establishing any of the above listings, please contact Honeywell Sensing and Control or your local sales office.

# Limitless™ Wireless Heavy-Duty Limit Switch with Eyelet Pull

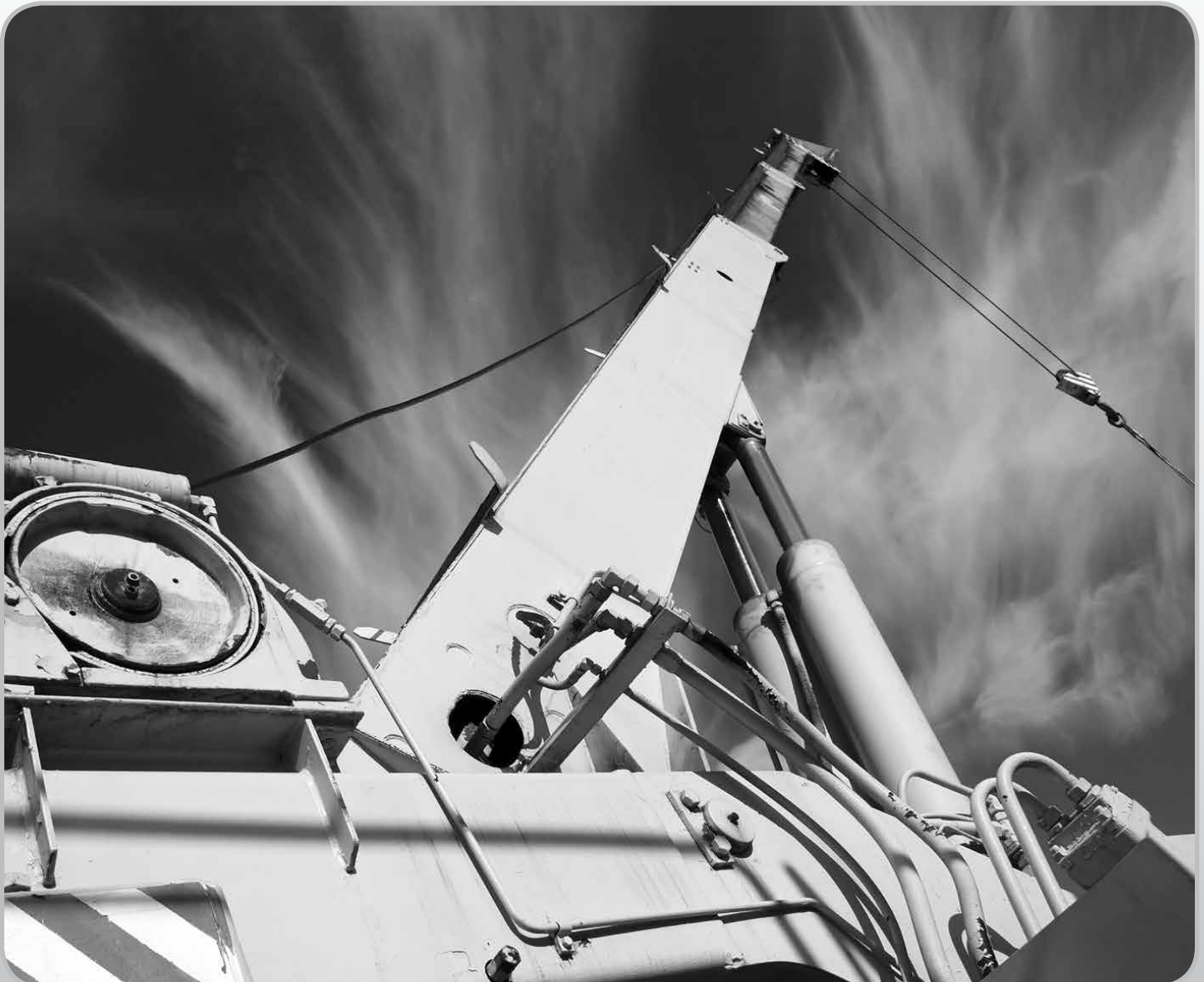
## Standard Listings

### Limitless™ WLS Series with Eyelet Pull for use in US/Canada

WLS	1A11	A	Q-4P01	Limitless™ WLS Series heavy-duty limit switch with 7 lb low-force eyelet pull operating head, head assembled with actuator to left side, 0 dBi omni antenna
WLS	1A11	A	Q-P01	Limitless™ WLS Series heavy-duty limit switch with 7 lb low-force eyelet pull operating head, head assembled with actuator to label side, 0 dBi omni antenna
WLS	1A11	A	Q-P02	Limitless™ WLS Series heavy-duty limit switch with 18 lb high-force eyelet pull operating head, head assembled with actuator to label side, 0 dBi omni antenna

### Limitless™ WLS Series with Eyelet Pull for use in all other approved countries

WLS	1A11	B	Q-4P01	Limitless™ WLS Series heavy-duty limit switch with 7 lb low-force eyelet pull operating head, head assembled with actuator to left side, 0 dBi omni antenna
WLS	1A11	B	Q-P01	Limitless™ WLS Series heavy-duty limit switch with 7 lb low-force eyelet pull operating head, head assembled with actuator to label side, 0 dBi omni antenna
WLS	1A11	B	Q-P02	Limitless™ WLS Series heavy-duty limit switch with 18 lb high-force eyelet pull operating head, head assembled with actuator to label side, 0 dBi omni antenna



# Limitless™ Limit Switch Series

## WLS Heavy-Duty Limit Switch Single Switch Adapter

Honeywell's Limitless™ product line uses the latest commercial off-the-shelf wireless technology and has expanded the WLS Series to convert almost any electromechanical switch with low-energy contacts (i.e., gold) into a wireless switch. A user-supplied electromechanical switch is simply wired to the WLS Series Single Switch Adapter via the internal or external connections to then become a wireless-enabled switch for use with the Limitless™ WPMM or WDRR Series of monitors/receivers. The Limitless™ Single Switch Adapter can be used in a variety of industrial wireless limit switch applications such as reed, contact, pressure, door actuator, etc.

The Limitless™ Series is especially beneficial for remote 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 improved safety for machines, equipment, OEMs, and operators.

### FEATURES

#### Wireless Design

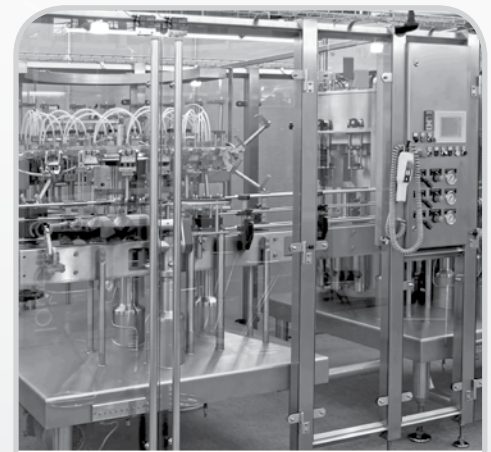
- Radio (license-free and global): WPAN 802.15.4, 2.4 GHz, point-to-point
- FCC 15, IC, ACMA, ETSI, COFETEL, WPC & IDA
- Up to 305 m [1000 ft] line-of-sight communication range when used with a Limitless™ WPMM Series wireless monitor or WDRR Series receiver module (sold separately)
- Reliable, flexible, and secure wireless transmission
- Standard replaceable battery with ultra-low power consumption
- Direct or remote mount antenna options

#### Mechanical Design

- IP67; NEMA 1, 4, 12, 13
- 4 PIN M12 micro-change receptacle, cable grip with internal connector wiring options
- Internal battery power
- Body phosphate treated and epoxy finished with a 30 % glass-filled PBT plastic head

### BENEFITS

- Allows almost any type of electromechanical switch with low-energy contacts (i.e., gold) to become "wireless"
- Enables presence/absence detection in remote parts of application/machinery, where wiring is an issue or not feasible
- Ability to reconfigure multiple switches, which easily allows for adding, subtracting or relocating of the Limitless™ WLS Single Switch Adapters
- Reduced installation/maintenance costs with no wires, conduit, strain relief, clips, connectors, connection boxes, etc.
- Eliminates issues with wire connection integrity on moving equipment
- Consumes ultra-low power to prolong battery life



### APPLICATIONS

- Agricultural equipment
- Construction equipment
- Door actuation (up/down) switch
- Industrial machines
- Lifts
- Machine tools
- Packaging machinery
- Wireless warehouse operations
- Wireless electromechanical switch applications (i.e., pressure switch, reed switch, basic switch and/or limit switch)

\*Some countries require specific communication certifications. Contact Honeywell for existing certification information.



### WLS Series Single Switch Adapter

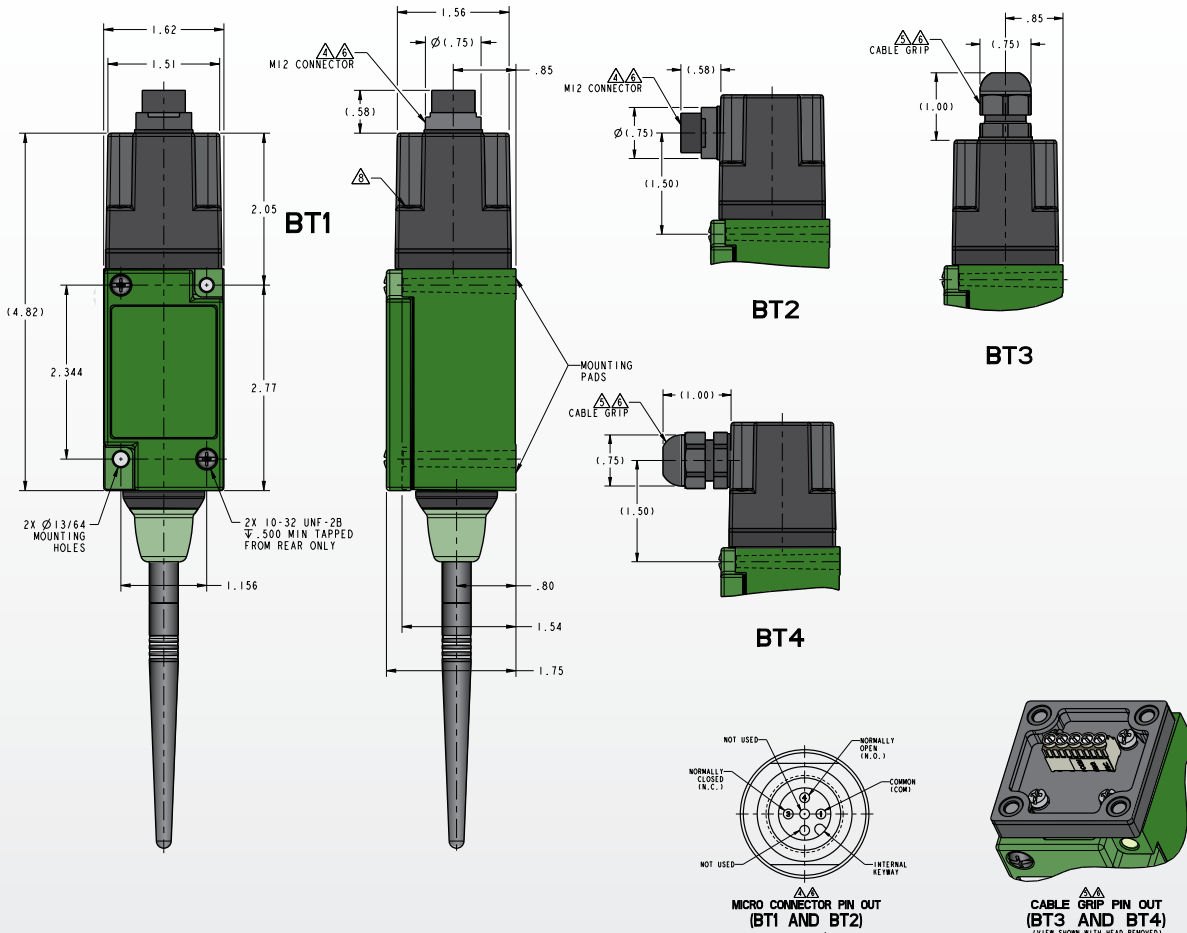
<b>Product type</b>	Limitless™ Single Switch Adapter
<b>Availability</b>	Global, license-free bands
<b>Housing material</b>	Zinc body is phosphate treated and epoxy filled; 30 % glass-filled PBT plastic head
<b>Radio</b>	WPAN 802.15.4; 2.4 GHz
<b>Antenna type</b>	RP-SMA jack for direct or remote mount antenna options; omni directional standard
<b>Signal range</b>	Nominal 305 m [1000 ft] clear line of sight between Limitless™ switch and monitor/receiver when using 2.2 dBi integral antennas
<b>Battery</b>	3.6 Vdc Lithium Thionyl Chloride; 2/3 AA size (Est. life >1yr) Manufactured by Green Energy, part number ER14335M Manufactured by Honeywell, part number WBT1
<b>Sealing</b>	IP67, NEMA 1, 4, 12, 13
<b>EMC</b>	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
<b>Shock</b>	IEC 60068-2-27; half sine, 50 g, 6 mS, 3 axis
<b>Vibration</b>	IEC 60068-2-6; 10-500Hz w/ 0,35 mm peak-to-peak, 58-500 Hz- 10g
<b>Operating temperature</b>	-40 °C to 85 °C [-40 °F to 185 °F]
<b>Electromechanical switch</b>	SPDT (Form C) switch with low-energy contacts (i.e., gold) capable of reliably controlling a 3.6 Vdc @ 30 mA electrical load to ensure proper operation
<b>Electrical connections</b>	<ul style="list-style-type: none"> <li>• 4-pin M12 micro-connector with three-pole, single keyway female receptacle</li> <li>• Cable grip with internal screw connector</li> </ul> Note: Maximum cable length 3 m [9.84 ft]
<b>Communication Agency Approvals/Certificates*</b>	- FCC 15.247: United States of America - IC RSS 210: Canada - COFETEL: Mexico - ETSI, CE mark: European countries - ACMA, C-TICK: Australia - IDA: Singapore - WPC: India

\* Honeywell is continuing to add new Country Communication Agency Approvals as opportunities and requirements are established.

# Limitless™

## Single Switch Adapter

### Dimensions and Ordering Options



### WLS SINGLE SWITCH ADAPTER NOMENCLATURE

WLS	1	A	00	A	Q		BT1
Switch type	Gen Code	RF Code	Antenna Type Code	Country Use Code	Operating Head Code	Modification Code (BT2 & BT4 only)	Specials
<b>WLS Series Wireless</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>02</b> 2.2 dBi omni w/switch mount; tilt/swivel <b>11</b> 0 dBi omni w/switch mount; straight design	<b>A</b> US, Canada, Mexico <b>B</b> All other approved countries <sup>1, 2, 3</sup>	<b>Q</b> See specials	<b>3</b> Head assembled with cable grip/connector to label side <b>4</b> Head assembled with cable grip/connector to right side <b>5</b> Head assembled with cable grip/connector to left side <b>5</b> Head assembled with cable grip/connector to mounting surface	<b>BT1</b> Internal battery w/ micro-connector on top of head <b>BT2</b> Internal battery w/ micro-connector on side of head <b>BT3</b> Internal battery w/ cable grip on top of head <b>BT4</b> Internal battery w/ cable grip on side of head

NOTE: Not all combinations available. For further information on establishing any of the above listings, please contact Honeywell Sensing and Control or your local sales office.

<sup>1</sup>Use with antenna type codes 00 - 03, 05, 10, 11 only; usage also allowed in Country Code A.  
<sup>2</sup>Some countries require specific communication certifications. Contact Honeywell for existing certification information.  
<sup>3</sup>If Limitless devices are used on machinery that may shipped globally, use country code "B".

# Limitless™ Single Switch Adapter

## Standard Listings

### Limitless™ Single Switch Adapter for use in US/Canada

#### M12 Connector

WLS	1A00	A	QBT1	Limitless™ WLS Series Single Switch Adapter, no antenna, internal battery with M12 micro-connector on top of head
WLS	1A02	A	QBT1	Limitless™ WLS Series Single Switch Adapter, 2.2 dBi tilt/swivel antenna, internal battery with M12 micro-connector on top of head
WLS	1A11	A	QBT1	Limitless™ WLS Series Single Switch Adapter, 0 dBi straight antenna, internal battery with M12 micro-connector on top of head

#### Cable Grip

WLS	1A00	A	QBT3	Limitless™ WLS Series Single Switch Adapter, no antenna, internal battery with cable grip on top of head
WLS	1A02	A	QBT3	Limitless™ WLS Series Single Switch Adapter, 2.2 dBi tilt/swivel antenna, internal battery with cable grip on top of head
WLS	1A11	A	QBT3	Limitless™ WLS Series Single Switch Adapter, 0 dBi straight antenna, internal battery with cable grip on top of head

### Limitless™ Single Switch Adapter for use in all other approved countries

#### M12 Connector

WLS	1A00	B	QBT1	Limitless™ WLS Series Single Switch Adapter, no antenna, internal battery with M12 micro-connector on top of head
WLS	1A02	B	QBT1	Limitless™ WLS Series Single Switch Adapter, 2.2 dBi tilt/swivel antenna, internal battery with M12 micro-connector on top of head
WLS	1A11	B	QBT1	Limitless™ WLS Series Single Switch Adapter, 0 dBi straight antenna, internal battery with M12 micro-connector on top of head

#### Cable Grip

WLS	1A00	B	QBT3	Limitless™ WLS Series Single Switch Adapter, no antenna, internal battery with cable grip on top of head
WLS	1A02	B	QBT3	Limitless™ WLS Series Single Switch Adapter, 2.2 dBi tilt/swivel antenna, internal battery with cable grip on top of head
WLS	1A11	B	QBT3	Limitless™ WLS Series Single Switch Adapter, 0 dBi straight antenna, internal battery with cable grip on top of head



# Limitless™ Limit Switch Series

## WLS Series

### Wireless Non-Contact Switch

Honeywell's Limitless™ product line uses the latest commercial off-the-shelf wireless technology. The Limitless™ WLS Series is especially beneficial for remote monitoring applications where wiring or wire maintenance is not physically possible or economically feasible. Honeywell has expanded the Limitless™ product line with its industrial Wireless Non-Contact Switch that provides non-contact presence/absence detection of a variety of different magnet styles and magnetic actuators installed on the end-users' product, machine, equipment, etc. The Limitless™ WLS Non-Contact Switch's design features an industrial grade reed switch. Customers can choose how the reed switch is oriented within the switch's plastic head, i.e., either top- or side-sensing. Combining this greater flexibility with proven harsh-duty packaging can result in increased efficiencies and improved safety for industrial machines, equipment, OEMs, and operators.

## FEATURES

### Wireless Design

- Radio (license-free and global): WPAN 802.15.4, 2.4 GHz, point-to-point
- FCC 15, IC, ACMA, ETSI, COFETEL, WPC & IDA
- Up to 305 m [1000 ft] line-of-sight communication range when used with a Limitless™ wireless monitor or receiver module (sold separately)
- Reliable, flexible, and secure wireless transmission
- Replaceable battery with ultra-low power consumption
- Direct or remote mount antenna options

### Mechanical Design

- IP67; NEMA 1, 4, 12, 13
- Top and side sensing heads
- Zinc head and body are phosphate treated and epoxy finished

## BENEFITS

- Allows "non-contact" actuation
- Enables presence/absence detection in remote parts of application/machinery, where wiring is an issue or not feasible
- Able to reconfigure and network multiple switches, or point-to-point with personalized addresses, which allows for adding, subtracting or relocating of the Limitless™ WLS Non-Contact Switches
- Reduced installation/maintenance costs with no wires, conduit, strain relief, clips, connectors, connection boxes, etc.
- Eliminates issues with wire connection integrity on moving equipment
- Consumes ultra-low power to prolong battery life



## APPLICATIONS

- Machine tools
- Packaging machinery
- Lifts
- Ag/construction equipment
- Industrial machines

\*Some countries require specific communication certifications. Contact Honeywell for existing certification information.



### WLS Series Wireless Non-Contact Switch

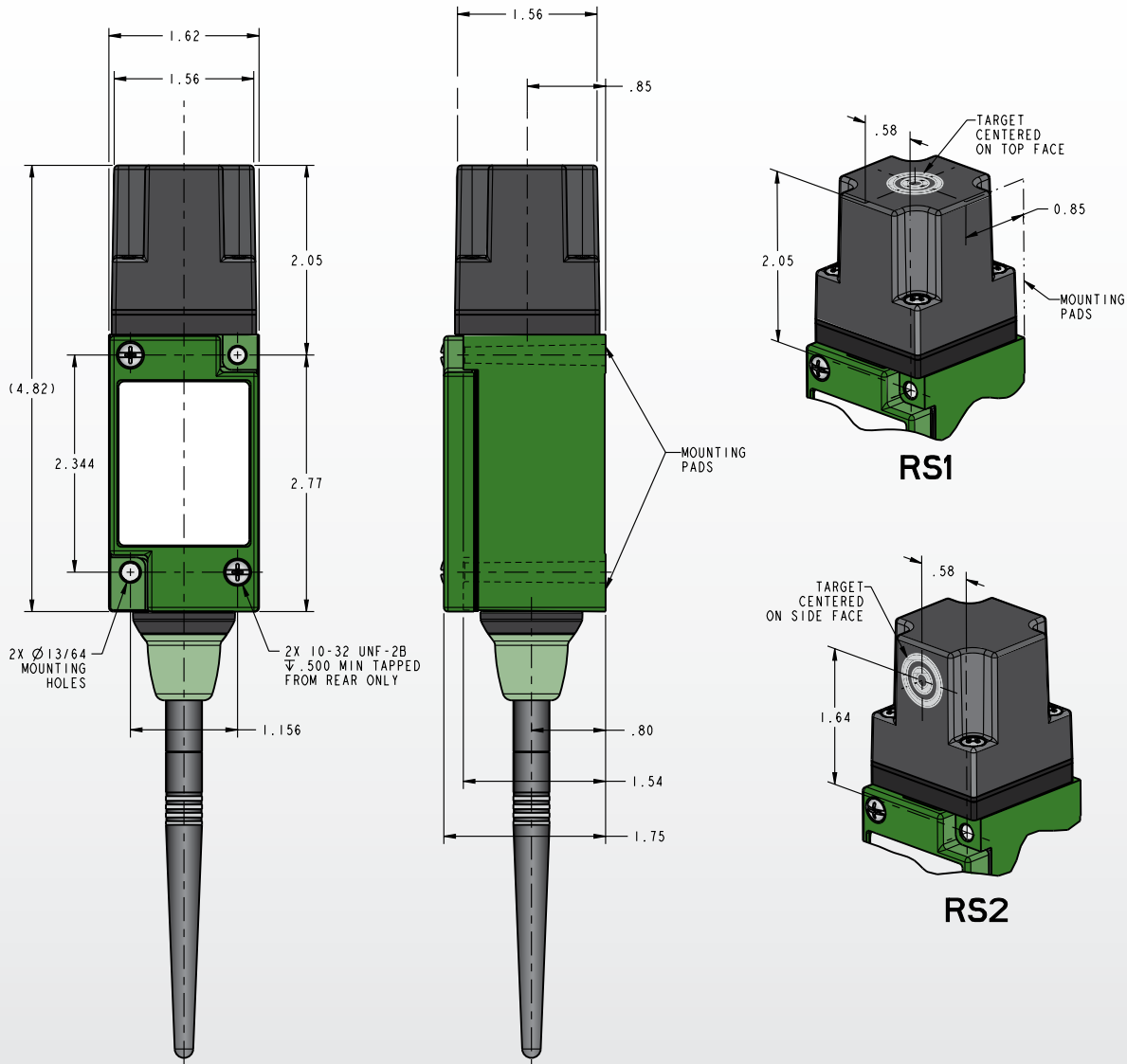
<b>Product type</b>	Limitless™ Wireless Non-Contact Switch
<b>Availability</b>	Global, license-free bands
<b>Operating characteristics</b>	Operating point: 3,81 mm [0.15 in] min.; Release point: 15,24 mm [0.60 in] max. with use of WMG1 magnet (included with WLS Series Non-Contact Switch)
<b>Sensing target</b>	Top and side of head
<b>Housing material</b>	Zinc head and body are phosphate treated and epoxy finished; 30% glass-filled PBT plastic head
<b>Radio</b>	WPAN 802.15.4; 2.4 GHz
<b>Antenna type</b>	RP-SMA jack for direct or remote mount antenna options; omni directional standard
<b>Signal range</b>	Nominal 305 m [1000 ft] Clear line-of-sight between Limitless™ switch and monitor/receiver when using 2.2 dBi integral antenna
<b>Battery</b>	3.6 Vdc Lithium Thionyl Chloride; 2/3 AA size (Est. life >1yr) Manufactured by Green Energy, part number ER14335M; Manufactured by Honeywell, part number WBT1
<b>Sealing</b>	IP67; NEMA 1, 4, 12, 13
<b>EMC</b>	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
<b>Shock</b>	EC 60068-2-27; half sine, 10 g, 6 mS, 3 axis
<b>Vibration</b>	IEC 60068-2-6; 10-58 Hz w/ 0,35 mm peak-to-peak - 5g
<b>Operating temperature</b>	-40 to 85 °C [-40 °F to 185 °F]
<b>Communication Agency Approvals/ Certificates*</b>	- FCC 15.247: United States of America - IC RSS 210: Canada - COFETEL: Mexico - ETSI, CE mark: European countries - ACMA, C-TICK: Australia - IDA: Singapore - WPC: India

\* Honeywell is continuing to add new Country Communication Agency Approvals as opportunities and requirements are established

\*Some countries require specific communication certifications.  
Contact Honeywell for existing certification information.

# Limitless™ Wireless Non-Contact Switch

## Dimensions and Ordering Options



### WLS SERIES NON-CONTACT SWITCH NOMENCLATURE

WLS	1	A	00	A	Q		RS2
Switch Type	Gen Code	RF Code	Antenna Type Code	Country Use Code	Operating Head Code	Modification Code (RS2 only)	Specials
<b>WLS Series Wireless</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>02</b> 2.2 dBi omni w/switch mount; tilt/swivel <b>11</b> 0 dBi omni w/ switch mount; straight design	<b>A</b> US, Canada, Mexico <b>B</b> All other approved countries <sup>1, 2, 3</sup>	<b>Q</b> See specials	<b>3</b> Head assembled with target to label side <b>4</b> Head assembled with target to right side <b>5</b> Head assembled with target to left side <b>6</b> Head assembled with target to mounting surface	<b>RS1</b> Internal battery w/ reed switch target on top of head <b>RS2</b> Internal battery w/ reed switch target on side of head

NOTE: Not all combinations available.  
For further information on establishing any of the above listings, please contact Honeywell Sensing and Control or your local sales office.

<sup>2</sup>Some countries require specific communication certifications. Contact Honeywell for existing certification information.

<sup>3</sup>If Limitless devices are used on machinery that may shipped globally, use country code "B".

# Limitless™ Wireless Non-Contact Switch

## Standard Listings

### Limitless™ Wireless Non-Contact Switch for use in US/Canada

#### Top Sensing

WLS	1A00	A	QRS1	Limitless™ WLS Series Non-Contact Switch with no antenna and a top sensing target
WLS	1A11	A	QRS1	Limitless™ WLS Series Non-Contact Switch with a 0 dBi antenna and a top sensing target

#### Side Sensing

WLS	1A00	A	QRS2	Limitless™ WLS Series Non-Contact Switch with no antenna and a side sensing target
WLS	1A11	A	QRS2	Limitless™ WLS Series Non-Contact Switch with a 0 dBi antenna and a side sensing target

### Limitless™ Wireless Non-Contact Switch for use in all other approved countries

#### Top Sensing

WLS	1A00	B	QRS1	Limitless™ WLS Series Non-Contact Switch with no antenna and a top sensing target
WLS	1A11	B	QRS1	Limitless™ WLS Series Non-Contact Switch with a 0 dBi antenna and a top sensing target

#### Side Sensing

WLS	1A00	B	QRS2	Limitless™ WLS Series Non-Contact Switch with no antenna and a side sensing target
WLS	1A11	B	QRS2	Limitless™ WLS Series Non-Contact Switch with a 0 dBi antenna and a side sensing target



# Limitless™ Wireless Operator Interface

## WOI Series

The Limitless™ product line extends to include wireless operator interface. With both momentary and maintained contacts, the wireless operator interface (WOI) can be used by an operator to provide indication 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 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 much more.

### FEATURES

#### Wireless Design

- Radio (license-free and global): WPAN 802.15.4, 2.4 GHz, point-to-point
- FCC 15, IC, ACMA & ETSI
- RoHS compliant
- EMI immunity
- Up to 305 m [1000 ft] communication range when used with a Limitless™ wireless monitor or receiver module (sold separately)
- Reliable, flexible, and secure wireless transmission
- Standard replaceable battery with ultra-low power consumption
- Direct or remote mount antenna options

#### Mechanical Design

- Aluminum enclosure
- IP65 sealing
- 22 mm flush, 29 mm mushroom, & 40 mm mushroom (push-pull) round pushbutton operators available
- User chosen/installed operator type is allowable
- Momentary and maintained contact options
- Design for ease of installation

### BENEFITS

- Enables operator indication (i.e. push button) from remote locations where wiring is too costly or not possible
- Flexibility for users to choose and install their desired operator type; i.e. 22 mm rotary switch, 22 mm key switch, etc.
- Ability to reconfigure and network multiple WOI inputs, or point-to-point with personalized addresses, which allows for adding, subtracting or re-locating of Limitless™ WOI switches easily
- Offers the ability to be used in conjunction with Limitless™ switches configured on a single Limitless™ receiver
- Reduced installation/maintenance costs with no wires, conduit, strain relief, clips, connectors, connection boxes, etc.
- Eliminates issues with wire connection integrity on moving equipment
- Consumes ultra-low power to prolong battery life



### APPLICATIONS

#### Industrial

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

#### Transportation

- Agricultural equipment
- Movable machinery

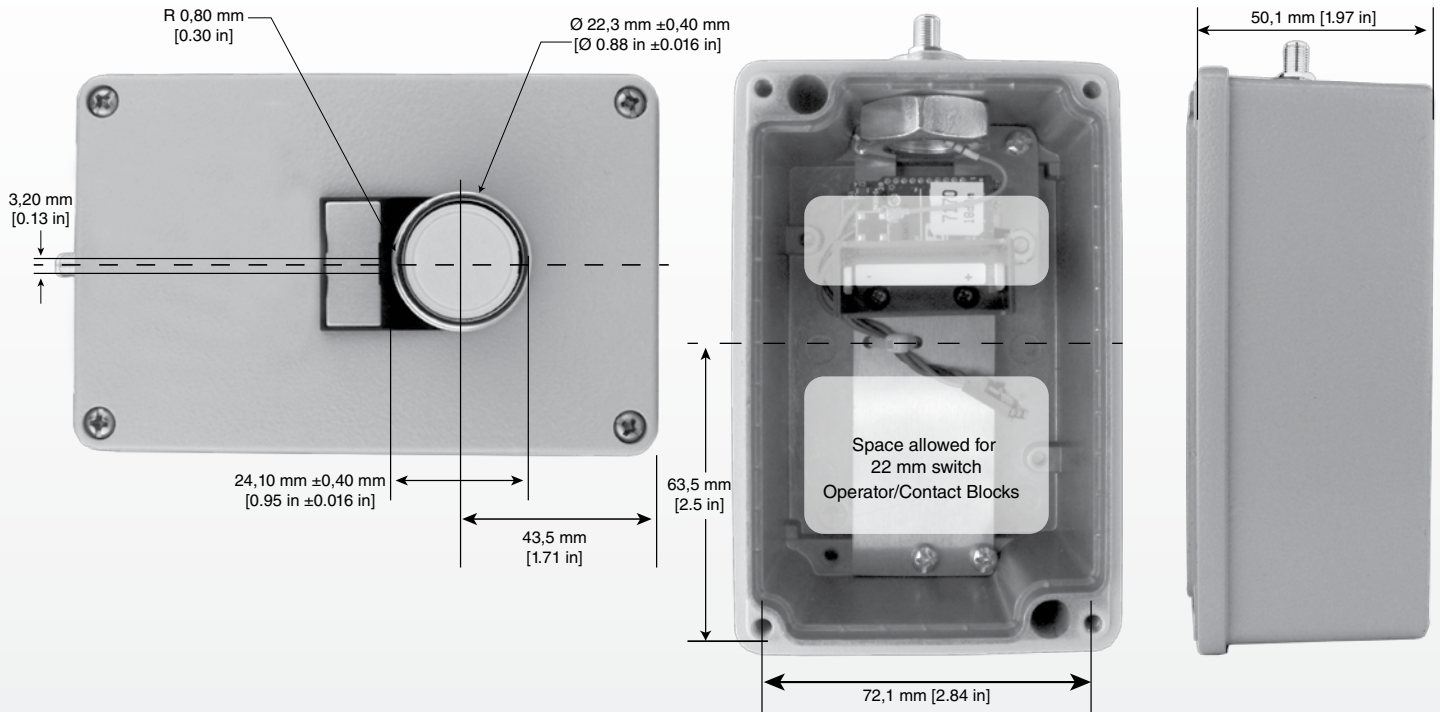


### WOI Series

<b>Product type</b>	Limitless™ Operator Interface Switches
<b>Availability</b>	Global, license-free bands
<b>Operating force</b>	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]
<b>Actuator type</b>	Pushbutton operators <ul style="list-style-type: none"> <li>• 22 mm round flush momentary</li> <li>• 29 mm mushroom head momentary</li> <li>• 40 mm mushroom head maintained (push-pull);</li> </ul> No operator option available for use with user supplied 22 mm operator and contact blocks
<b>Actuator/contact blocks (if user supplied)</b>	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
<b>Actuator colors</b>	Black, Green, Red*, Yellow * not available for the 29 mm mushroom, & 40 mm mushroom (push-pull) pushbuttons
<b>Housing material</b>	Powder coated aluminum
<b>Radio</b>	WPAN 802.15.4; 2.4 GHz
<b>Antenna type</b>	Direct or remote mount antenna options; Omni directional
<b>Signal range</b>	Nominal 305 m [1000 ft] clear line of sight between Limitless™ WOI switch and monitor/receiver when using 2.2 dBi integral antennas
<b>Battery</b>	3.6 Vdc Lithium Thionyl Chloride; 2/3 AA size (Est. life >1.5 years) Manufactured by Green Energy p/n ER14335M; Manufactured by Honeywell, part number WBT1
<b>Sealing</b>	IP65
<b>EMC</b>	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
<b>Shock</b>	IEC 60068-2-27; half sine, 50 g, 6 mS, 3 axis
<b>Vibration</b>	IEC 60068-2-6; 10-500Hz w/ 0,35 mm peak-to-peak, 58-500 Hz- 10g
<b>Operating temperature</b>	-25 °C to 50 °C [-13 °F to 122 °F]
<b>Agency approvals and standards</b>	FCC 15.247 Industry Canada RSS 210 ETSI, CE mark ACMA, C-Tick mark

# Limitless™ Wireless Operator Interface

## Dimensions and Ordering Options



### WOI NOMENCLATURE

WOI	1	A	00	A	PA	G
Module type	GEN code	RF code	Antenna type code	Country use code	Actuator type	Actuator color
<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> NOT AVAILABLE IN RED	<b>Y</b> Yellow

NOTE: Not all combinations available. For further information on establishing any of the above listings, please contact Honeywell Sensing and Control or your local sales office.

# Limitless™ Wireless Operator Interface

## WOI Standard Listings

### Limitless™ WOI Series Operator Interface for use in US/Canada

#### 22 mm flush pushbutton

WOI	1A00	A	PAG	Limitless™ WOI, no antenna, 22 mm round flush momentary green pushbutton
WOI	1A00	A	PAR	Limitless™ WOI, no antenna, 22 mm round flush momentary red pushbutton
WOI	1A11	A	PAG	Limitless™ WOI, 0 dBi straight antenna, 22 mm round flush momentary green pushbutton
WOI	1A11	A	PAR	Limitless™ WOI, 0 dBi straight antenna, 22 mm round flush momentary red pushbutton

#### 29 mm mushroom pushbutton

WOI	1A00	A	PBY	Limitless™ WOI, no antenna, 29 mm mushroom head momentary yellow pushbutton
WOI	1A11	A	PBY	Limitless™ WOI, 0 dBi straight antenna, 29 mm mushroom head momentary yellow pushbutton

#### 40 mm maintained pushbutton

WOI	1A00	A	PCY	Limitless™ WOI, no antenna, 40 mm maintained yellow pushbutton
WOI	1A11	A	PCY	Limitless™ WOI, 0 dBi straight antenna, 40 mm maintained yellow pushbutton

### Limitless™ WOI Series Operator Interface for use in all other approved countries

#### 22 mm flush pushbutton

WOI	1A00	B	PAG	Limitless™ WOI, no antenna, 22 mm round flush momentary green pushbutton
WOI	1A00	B	PAR	Limitless™ WOI, no antenna, 22 mm round flush momentary red pushbutton
WOI	1A11	B	PAG	Limitless™ WOI, 0 dBi straight antenna, 22 mm round flush momentary green pushbutton
WOI	1A11	B	PAR	Limitless™ WOI, 0 dBi straight antenna, 22 mm round flush momentary red pushbutton

#### 29 mm mushroom pushbutton

WOI	1A00	B	PBY	Limitless™ WOI, no antenna, 29 mm mushroom head momentary yellow pushbutton
WOI	1A11	B	PBY	Limitless™ WOI, 0 dBi straight antenna, 29 mm mushroom head momentary yellow pushbutton

#### 40 mm maintained pushbutton

WOI	1A00	B	PCY	Limitless™ WOI, no antenna, 40 mm maintained yellow pushbutton
WOI	1A11	B	PCY	Limitless™ WOI, 0 dBi straight antenna, 40 mm maintained yellow pushbutton



# Limitless™ Monitor and Receiver

## WPMM Wireless Panel-Mount Monitor

## WDRR Wireless DIN-Rail Receiver

Limitless™ WPMM Series wireless panel-mount monitors provide a visual, audio, and output based on a signal received from a Limitless™ input. Limitless™ WPMM monitors offer quick indication of an actuator position change on a paired Limitless™ wireless limit switch.

The WDRR Series DIN-Rail receiver accommodates up to 14 Limitless™ digital inputs for applications that need more than one-input/one-receiver configuration. It provides a separate visual and selectable NPN- or PNP-type output for indication of a change on a Limitless™ input.

### WPMM FEATURES

#### Wireless Electrical Design

- Radio (license-free and global\*): WPAN 802.15.4, 2.4 GHz, point-to-point
- FCC 15, IC, ACMA, ETSI, COFETEL, IDA, WPC, SRRC, KCC, and ANATEL
- RoHS compliant
- EMI resistance protects against external interference
- In excess of 305 m [1000 ft] line-of-sight communication
- Reliable, flexible, and secure wireless transmission
- 10 Vdc to 30 Vdc supply
- Three output options: NPN normally open current sinking, PNP normally open current sourcing, and solid state relay
- Diagnostic functions include lost RF and low battery indication
- Designed primarily for single switch applications, but can monitor multiple wireless switches (*sold separately*)
- Field pairing function allows for rapid configuration

#### Mechanical Design

- Panel-mount enclosure (snap-in or screw mount)
- Polycarbonate, shock resistant, tamper-proof case
- Sealed to IP67
- Multiple LED function/status indicators with audible buzzer (configurable to silent)
- Direct or remote-mount antenna

### WDRR FEATURES

#### Wireless Electrical Design

- Selectable NPN-, PNP-, or totem-pole- type output
- Fourteen configurable normally open or normally closed outputs for up to 14 Limitless™ inputs (*sold separately*)
- Reliable, flexible, and secure wireless transmission
- Radio (license-free and global\*): WPAN 802.15.4, 2.4 GHz, point-to-point
- In excess of 305 m [1000 ft] line-of-sight communication between Limitless™ switches and monitor/receiver when using 2.2dBi integral antenna
- FCC 15, IC, ACMA, ETSI, COFETEL, IDA, WPC, SRRC, KCC, and ANATEL
- RoHS compliant
- Field pairing allows for rapid adding or subtracting inputs for quick configuration
- 10 Vdc to 28 Vdc supply
- Diagnostic functions include lost RF and low battery indication

#### Mechanical Design

- DIN Rail or screw mount
- Cage clamp screw terminal blocks for input/output connections
- Sealed to IP20
- Multiple LED function and status indicators
- LED RF signal strength indication for up to 14 Limitless™ inputs
- Direct or remote mount antenna

### LIMITLESS™ SERIES BENEFITS

- Ability to reconfigure and network multiple switches, or point-to-point with personalized addresses that allow for adding, subtracting or relocating Limitless™ switches easily
- Reduced installation/maintenance costs with no wiring, conduit, strain relief, clips, connectors, connection boxes, etc.
- Communication security per the IEEE 802.15.4 standard [16-bit PAN (network) ID, 16-bit address and 128-bit security key]
- Eliminates issues with wire and connector integrity on moving equipment



### APPLICATIONS

- Construction/ag machines
- Conveyors
- Crane boom/jib/skew position
- Door position
- Grain diverters or flaps
- Hose attachment verification
- Lifts
- Material handling
- Movable machinery
- Presses
- Remote or temporary equipment
- Specialty machines
- Valve position

\*Some countries require specific communication certifications. Contact Honeywell for existing certification information.



**WPMM Series**



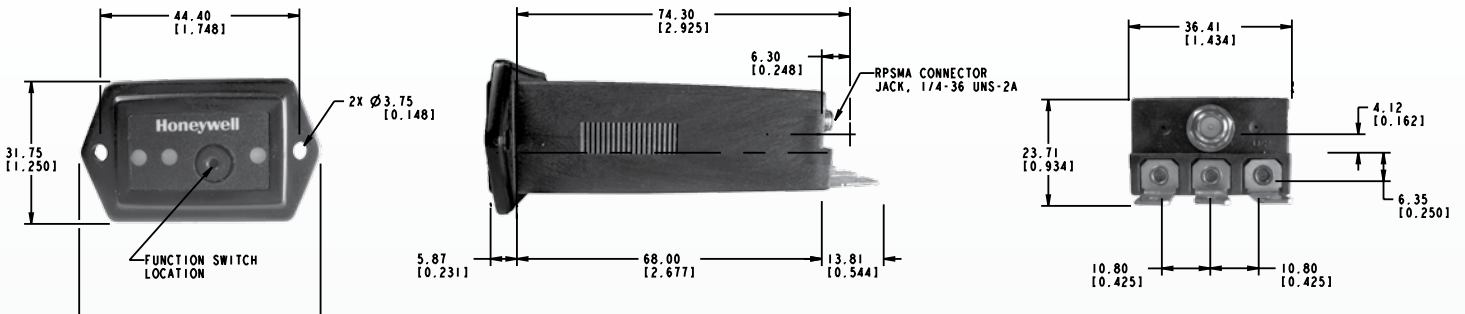
**WDRR Series**

Limitless™ wireless panel mount monitor	<b>Product type</b>	Limitless™ wireless din-rail receiver (PLC interface)
WPMM Series	<b>Series name</b>	WDRR Series
Global, license-free RF bands*	<b>Availability</b>	Global, license-free RF bands*
LCP, VECTRA E130i	<b>Housing material</b>	Flame retardant ABS
Snap-in panel or screw-mount design	<b>Housing type</b>	DIN-Rail or screw-mount design
WPAN 802.15.4, 2.4 GHz point to point	<b>Radio type</b>	WPAN 802.15.4, 2.4 GHz point-to-point
RP-SMA jack for direct mount or remote antenna options; omni-directional standard	<b>Antenna type</b>	RP-SMA jack for direct mount or remote antenna options; omni-directional standard
In excess of 305 m [1000 ft] line-of-sight communication between Limitless™ switches and monitor/receiver when using 2.2 dBi integral antenna	<b>Signal range</b>	In excess of 305 m [1000 ft] line-of-sight communication between Limitless™ switches and monitor/receiver when using 2.2 dBi integral antenna
Three LEDs: green, yellow, red Power indication: green Output indication: red Configuration/diagnostic: green, yellow, red Buzzer (output indic, config/diag) w/ silent option	<b>Indication</b>	Configuration LEDs: green, yellow, red 14 output/diagnostic LEDs: green, yellow, red Low battery & lost RF output LEDs: red, green RF signal strength LEDs: blue
10 Vdc to 30 Vdc	<b>Supply voltage</b>	10 Vdc to 28 Vdc
750 mA max.	<b>Supply current</b>	500 mA max.
NPN normally open current sinking; PNP normally open current sourcing; solid state relay	<b>Output type</b>	Selectable: NPN-type current sinking open collector or NPN-type “totem pole”; PNP-type current sourcing open collector or PNP-type “totem pole”
5 mA to 200 mA	<b>Load current</b>	10 mA max.
50 uA max.	<b>Leakage current</b>	100 uA max.
1.75 Vdc max. @ max. load @ 25 °C [77 °F]	<b>Voltage drop</b>	2.0 Vdc max. @ max. load @ 25 °C [77 °F]
3	<b>Terminal(s)</b>	18 usable
Quick connect, 0.25 in male blade	<b>Termination</b>	Cage-clamp screw terminal blocks
IP67	<b>Sealing</b>	IP20
Yes	<b>Reverse polarity protection</b>	Yes
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	<b>EMC</b>	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
IEC 60068-2-27; half sine, 10 g, 6 mS, 3 axis	<b>Shock</b>	IEC 60068-2-27; Half sine, 10 g, 6 mS, 3 axis
IEC 60068-2-6; 10 Hz to 500 Hz w/ 0,35 mm peak-to-peak, 58 Hz to 500 Hz- 5 g	<b>Vibration</b>	IEC 60068-2-6; 10-500Hz w/ 0,35 mm peak-to-peak, 58-500 Hz- 5 g
-40 °C to 85 °C [-40 °F to 185 °F]	<b>Operating temp.</b>	-20 °C to 70 °C [-4 °F to 158 °F]
FCC 15.247; IC RSS 210, ETSI, CE mark; ACMA, C-TICK; COFETEL; IDA; ANATEL; WPC; SRRRC; KCC	<b>Agency approvals and standards</b>	FCC 15.247; IC RSS 210, ETSI, CE mark; ACMA, C-TICK; COFETEL; IDA; ANATEL; WPC; SRRRC; KCC
31,87 mm H x 44,40 mm W x 74,30 mm D [1.25 in H x 1.748 in W x 2.925 in D] ref.	<b>Size</b>	88,9 mm H x 152,4 mm W x 38,1 mm D [3.5 in H x 6 in W x 1.5 in D] ref.

\*Some countries require specific communication certifications.  
Contact Honeywell for existing certification information.

# Limitless™ Monitor

## WPMM Wireless Panel-Mount Monitor Dimensions and Ordering Options



All dimensions for reference only.

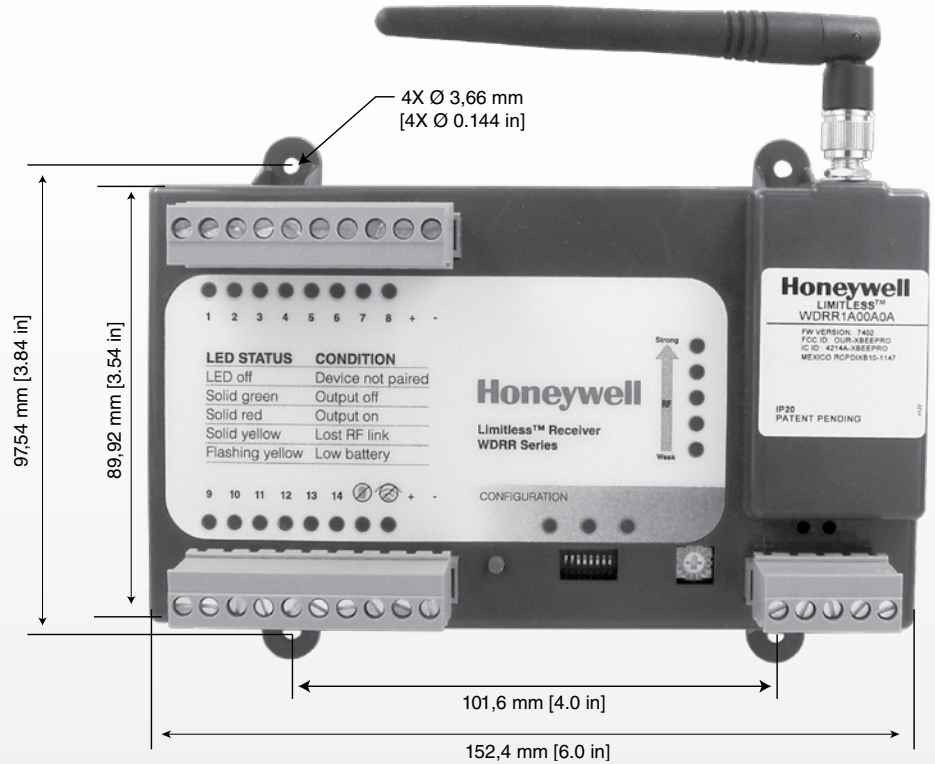
### WPMM NOMENCLATURE

WPMM	1	A	00	A	P01
Switch type	Gen Code	RF Code	Antenna type code	Country use code	Specials
WPMM Series Monitor	<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/NPN output
			<b>01</b> 2.2 dBi omni w/switch mount; straight design	<b>B</b> All other approved countries <sup>1, 2, 3</sup>	<b>P01</b> PNP output
			<b>02</b> 2.2 dBi omni w/switch mount; tilt/swivel	<sup>1</sup> Use with antenna type codes 00 - 03, 05, 10, 11 only; usage also allowed in Country Code A.  <sup>2</sup> Some countries require specific communication certifications. Contact Honeywell for existing certification information.  <sup>3</sup> If Limitless™ devices are used on machinery that may be shipped globally, use Country Code "B".	<b>S01</b> Solid state relay output
			<b>03</b> 3.0 dBi omni w/remote adhesive mount 9.8 ft cable		
			<b>04</b> 5.5 dBi omni w/remote mag. mount, tilt/swivel 5 ft cable		
			<b>05</b> 5.5 dBi omni w/remote mag. mount, tilt/swivel 10 ft cable		
			<b>06</b> 9.0 dBi omni w/remote mag. mount, tilt/swivel 5 ft cable		
			<b>07</b> 9.0 dBi omni w/remote mag. mount, tilt/swivel 10 ft cable		
			<b>08</b> 8.0 dBi omni w/remote bkt. mount, str. design 3 ft cable		
			<b>09</b> 8.0 dBi omni w/remote bkt. mount, str. design 11 ft cable		
			<b>10</b> 2.2 dBi omni w/remote mag. mount, tilt/swivel 10 ft cable		



# Limitless™ Receiver

WDRR Wireless Din-Rail Receiver  
Dimensions and Ordering Options



## WDRR NOMENCLATURE

WDRR	1	A	00	A	0	A
Switch type	GEN code	RF Code	Antenna type code	Country use code	Output code	Channel code
<b>WDRR</b> Series Din-Rail Receiver	<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	<b>0</b> NPN/PNP selectable	<b>A</b> 14 channels
			<b>01</b> 2.2 dBi omni w/switch mount; straight design	<b>B</b> All other approved countries <sup>1,2,3</sup>		
			<b>02</b> 2.2 dBi omni w/switch mount; tilt/swivel	<sup>1</sup> Use with antenna type codes 00 - 03, 05, 10, 11 only; usage allowed in Country Code A.		
			<b>03</b> 3.0 dBi omni w/remote adhesive mount 9.8 ft cable	<sup>2</sup> Some countries require specific communication certifications. Contact Honeywell for existing certification information.		
			<b>04</b> 5.5 dBi omni w/remote mag. mount, tilt/swivel 5 ft cable	<sup>3</sup> If Limitless™ devices are used on machinery that may be shipped globally, use Country Code "B".		
			<b>05</b> 5.5 dBi omni w/remote mag. mount, tilt/swivel 10 ft cable			
			<b>06</b> 9.0 dBi omni w/remote mag. mount, tilt/swivel 5 ft cable			
			<b>07</b> 9.0 dBi omni w/remote mag. mount, tilt/swivel 10 ft cable			
			<b>08</b> 8.0 dBi omni w/remote bkt. mount, str. design 3 ft cable			
			<b>09</b> 8.0 dBi omni w/remote bkt. mount, str. design 11 ft cable			
			<b>10</b> 2.2 dBi omni w/remote mag. mount, tilt/swivel 10 ft cable			

# Limitless™ Limit Switch Series

WLS Series

Operating Heads with Wobble Sticks



**LSZ1JGM**  
13.0 inch spring wire wobble



**LSZ1JGA**  
5.5 inch Delrin® rod wobble



**LSZ1JGN**  
5.5 inch cable wobble



Limitless™ switch actuators may be custom designed by Honeywell S&C's engineering team to ensure optimum actuation for specific applications.

# Limitless™ Series

## Accessories



Antenna  
Type Code  
"01"

**WAN01RSP**  
straight design,  
2.2 dBi gain,  
direct mount  
connector



Antenna  
Type Code  
"02"

**WAN02RSP**  
tilt & swivel design,  
2.2 dBi gain,  
direct mount  
connector



Antenna Type  
Code "03"

**WAN03RSP**  
flat design,  
3 dBi gain,  
adhesive mount



**WAN04RSP**  
tilt & swivel design,  
5.5 dBi gain,  
direct mount  
connector



Antenna Type  
Code "04"

**WAN05RSP &  
WAMM100RSP-005**  
T/S, 9 dBi gain,  
magnetic mount



**WAN06RNJ**  
straight design,  
8 dBi gain,  
bracket mount



Antenna  
Type Code  
"11"

**WAN07RSP**  
straight design,  
0 dBi gain, direct  
mount connector



**WAN09RSP**  
low-profile mobile antenna,  
3.0 dBi gain, magnetic mount



**WAN10RSP**  
straight mobile antenna,  
5.0 dBi gain,  
magnetic mount



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



**WPB1**  
WPMM mounting  
bracket



**WPR1**  
WPMM panel mount  
retainer



**WCA200 Series**  
200 series coax cable assembly  
available in a variety of lengths



**WAMM100RSP-005/010**  
100 series coax antenna mount  
available in 5 ft. and 10 ft. lengths

# Limitless™ Series

## WGLA Standard Listings

### Limitless™ WGLA Global Limit Switches for use in US/Canada/Mexico

#### Side rotary

WGLA	1A01	A	A1A	Limitless™ WGLA, 2.2 dBi straight antenna, momentary, standard lever with nylon roller
WGLA	1A01	A	A1B	Limitless™ WGLA, 2.2 dBi straight antenna, momentary, standard lever with steel roller
WGLA	1A01	A	A4J	Limitless™ WGLA, 2.2 dBi straight antenna, momentary, 200 mm aluminum adjustable rod actuator
WGLA	1A02	A	A1A	Limitless™ WGLA, 2.2 dBi tilt & swivel antenna, momentary, standard lever with nylon roller
WGLA	1A02	A	A1B	Limitless™ WGLA, 2.2 dBi tilt & swivel antenna, momentary, standard lever with steel roller
WGLA	1A02	A	A4J	Limitless™ WGLA, 2.2 dBi tilt & swivel antenna, momentary, 200 mm aluminum adjustable rod actuator
WGLA	1A04	A	A1A	Limitless™ WGLA, 5.5 dBi remote magnetic mount/t&s antenna with 5ft of cable, momentary, standard lever with nylon roller
WGLA	1A04	A	A1B	Limitless™ WGLA, 5.5 dBi remote magnetic mount/t&s antenna with 5ft of cable, momentary, standard lever with steel roller
WGLA	1A04	A	A4J	Limitless™ WGLA, 5.5 dBi remote magnetic mount/t&s antenna with 5ft of cable, momentary, 200 mm aluminum adj. rod

#### Top actuators

WGLA	1A01	A	B	Limitless™ WGLA, 2.2 dBi straight antenna, top pin plunger
WGLA	1A01	A	C	Limitless™ WGLA, 2.2 dBi straight antenna, top roller plunger
WGLA	1A01	A	D	Limitless™ WGLA, 2.2 dBi straight antenna, top roller lever
WGLA	1A02	A	B	Limitless™ WGLA, 2.2 dBi tilt & swivel antenna, top pin plunger
WGLA	1A02	A	C	Limitless™ WGLA, 2.2 dBi tilt & swivel antenna, top roller plunger
WGLA	1A02	A	D	Limitless™ WGLA, 2.2 dBi tilt & swivel antenna, top roller lever
WGLA	1A04	A	B	Limitless™ WGLA, 5.5 dBi remote magnetic mount/tilt & swivel antenna with 5 ft of cable, top pin plunger
WGLA	1A04	A	C	Limitless™ WGLA, 5.5 dBi remote magnetic mount/tilt & swivel antenna with 5 ft of cable, top roller plunger
WGLA	1A04	A	D	Limitless™ WGLA, 5.5 dBi remote magnetic mount/tilt & swivel antenna with 5 ft of cable, top roller lever

### Limitless™ WGLA Global Limit Switches for use in all other approved countries

#### Side rotary

WGLA	1A01	B	A1A	Limitless™ WGLA, 2.2 dBi straight antenna, momentary, standard lever with nylon roller
WGLA	1A01	B	A1B	Limitless™ WGLA, 2.2 dBi straight antenna, momentary, standard lever with steel roller
WGLA	1A01	B	A4J	Limitless™ WGLA, 2.2 dBi straight antenna, momentary, 200 mm aluminum adjustable rod actuator
WGLA	1A02	B	A1A	Limitless™ WGLA, 2.2 dBi tilt & swivel antenna, momentary, standard lever with nylon roller
WGLA	1A02	B	A1B	Limitless™ WGLA, 2.2 dBi tilt & swivel antenna, momentary, standard lever with steel roller
WGLA	1A02	B	A4J	Limitless™ WGLA, 2.2 dBi tilt & swivel antenna, momentary, 200 mm aluminum adjustable rod actuator
WGLA	1A04	B	A1A	Limitless™ WGLA, 5.5 dBi remote magnetic mount/t&s antenna with 5ft of cable, momentary, standard lever with nylon roller
WGLA	1A04	B	A1B	Limitless™ WGLA, 5.5 dBi remote magnetic mount/t&s antenna with 5ft of cable, momentary, standard lever with steel roller
WGLA	1A04	B	A4J	Limitless™ WGLA, 5.5 dBi remote magnetic mount/t&s antenna with 5ft of cable, momentary, 200 mm aluminum adj.

#### Top actuators

WGLA	1A01	B	B	Limitless™ WGLA, 2.2 dBi straight antenna, top pin plunger
WGLA	1A01	B	C	Limitless™ WGLA, 2.2 dBi straight antenna, top roller plunger
WGLA	1A01	B	D	Limitless™ WGLA, 2.2 dBi straight antenna, top roller lever
WGLA	1A02	B	B	Limitless™ WGLA, 2.2 dBi tilt & swivel antenna, top pin plunger
WGLA	1A02	B	C	Limitless™ WGLA, 2.2 dBi tilt & swivel antenna, top roller plunger
WGLA	1A02	B	D	Limitless™ WGLA, 2.2 dBi tilt & swivel antenna, top roller lever
WGLA	1A04	B	B	Limitless™ WGLA, 5.5 dBi remote magnetic mount/tilt & swivel antenna with 5 ft of cable, top pin plunger
WGLA	1A04	B	C	Limitless™ WGLA, 5.5 dBi remote magnetic mount/tilt & swivel antenna with 5 ft of cable, top roller plunger
WGLA	1A04	B	D	Limitless™ WGLA, 5.5 dBi remote magnetic mount/tilt & swivel antenna with 5 ft of cable, top roller lever

# Limitless™ Series

## WLS Standard Listings

### Limitless™ WLS Heavy-Duty Limit Switches for use in US/Canada/Mexico

#### Side rotary

WLS	1A00	A	A	Limitless™ heavy-duty limit switch, no antenna, momentary, no lever
WLS	1A01	A	A1A	Limitless™ heavy-duty limit switch, 2.2 dBi straight antenna, momentary, fixed 1.5 in lever with nylon roller
WLS	1A01	A	A1B	Limitless™ heavy-duty limit switch, 2.2 dBi straight antenna, momentary, fixed 1.5 in lever with steel roller
WLS	1A01	A	A2A	Limitless™ heavy-duty limit switch, 2.2 dBi straight antenna, momentary, adjustable 3.5 in lever with nylon roller
WLS	1A01	A	A2B	Limitless™ heavy-duty limit switch, 2.2 dBi straight antenna, momentary, adjustable 3.5 in lever with steel roller
WLS	1A02	A	A1A	Limitless™ heavy-duty limit switch, 2.2 dBi tilt/swivel antenna, momentary, fixed 1.5 in lever with nylon roller
WLS	1A02	A	A1B	Limitless™ heavy-duty limit switch, 2.2 dBi tilt/swivel antenna, momentary, fixed 1.5 in lever with steel roller
WLS	1A02	A	A2A	Limitless™ heavy-duty limit switch, 2.2 dBi tilt/swivel antenna, momentary, adjustable 3.5 in lever with nylon roller
WLS	1A02	A	A2B	Limitless™ heavy-duty limit switch, 2.2 dBi tilt/swivel antenna, momentary, adjustable 3.5 in lever with steel roller

#### Side rotary, maintained head

WLS	1A00	A	N	Limitless™ heavy-duty limit switch, no antenna, maintained, no lever
WLS	1A01	A	N	Limitless™ heavy-duty limit switch, 2.2 dBi straight antenna, maintained, no lever
WLS	1A02	A	N	Limitless™ heavy-duty limit switch, 2.2 dBi tilt/swivel antenna, maintained, no lever

#### Top actuators

WLS	1A00	A	C	Limitless™ heavy-duty limit switch, no antenna, top plunger
WLS	1A00	A	D	Limitless™ heavy-duty limit switch, no antenna, top roller plunger
WLS	1A01	A	C	Limitless™ heavy-duty limit switch, 2.2 dBi straight antenna, top plunger
WLS	1A01	A	D	Limitless™ heavy-duty limit switch, 2.2 dBi straight antenna, top roller plunger
WLS	1A02	A	C	Limitless™ heavy-duty limit switch, 2.2 dBi tilt/swivel antenna, top plunger
WLS	1A02	A	D	Limitless™ heavy-duty limit switch, 2.2 dBi tilt/swivel antenna, top roller plunger

### Limitless™ WLS Heavy-Duty Limit Switches for use in all other approved countries

#### Side rotary

WLS	1A00	B	A	Limitless™ heavy-duty limit switch, no antenna, momentary, no lever
WLS	1A01	B	A1A	Limitless™ heavy-duty limit switch, 2.2 dBi straight antenna, momentary, fixed 1.5 in lever with nylon roller
WLS	1A01	B	A1B	Limitless™ heavy-duty limit switch, 2.2 dBi straight antenna, momentary, fixed 1.5 in lever with steel roller
WLS	1A01	B	A2A	Limitless™ heavy-duty limit switch, 2.2 dBi straight antenna, momentary, adjustable 3.5 in lever with nylon roller
WLS	1A01	B	A2B	Limitless™ heavy-duty limit switch, 2.2 dBi straight antenna, momentary, adjustable 3.5 in lever with steel roller
WLS	1A02	B	A1A	Limitless™ heavy-duty limit switch, 2.2 dBi tilt/swivel antenna, momentary, fixed 1.5 in lever with nylon roller
WLS	1A02	B	A1B	Limitless™ heavy-duty limit switch, 2.2 dBi tilt/swivel antenna, momentary, fixed 1.5 in lever with steel roller
WLS	1A02	B	A2A	Limitless™ heavy-duty limit switch, 2.2 dBi tilt/swivel antenna, momentary, adjustable 3.5 in lever with nylon roller
WLS	1A02	B	A2B	Limitless™ heavy-duty limit switch, 2.2 dBi tilt/swivel antenna, momentary, adjustable 3.5 in lever with steel roller

#### Side rotary, maintained head

WLS	1A00	B	N	Limitless™ heavy-duty limit switch, no antenna, maintained, no lever
WLS	1A01	B	N	Limitless™ heavy-duty limit switch, 2.2 dBi straight antenna, maintained, no lever
WLS	1A02	B	N	Limitless™ heavy-duty limit switch, 2.2 dBi tilt/swivel antenna, maintained, no lever

#### Top actuators

WLS	1A00	B	C	Limitless™ heavy-duty limit switch, no antenna, top plunger
WLS	1A00	B	D	Limitless™ heavy-duty limit switch, no antenna, top roller plunger
WLS	1A01	B	C	Limitless™ heavy-duty limit switch, 2.2 dBi straight antenna, top plunger
WLS	1A01	B	D	Limitless™ heavy-duty limit switch, 2.2 dBi straight antenna, top roller plunger
WLS	1A02	B	C	Limitless™ heavy-duty limit switch, 2.2 dBi tilt/swivel antenna, top plunger
WLS	1A02	B	D	Limitless™ heavy-duty limit switch, 2.2 dBi tilt/swivel antenna, top roller plunger

# Limitless™ Series

## Receiver Listings

### Limitless™ WPMM Standard Listing

#### Part Number Description

#### Output: NPN normally open current sinking

WPMM	1A00	A		Limitless™ WPMM monitor with NPN output, no antenna, US/Canada/Mexico
WPMM	1A02	A		Limitless™ WPMM monitor with NPN output, 2.2 dBi omni antenna (tilt & swivel design), US/Canada/Mexico
WPMM	1A03	A		Limitless™ WPMM monitor w/ NPN output, 3.0 dBi omni antenna with remote adhesive mount. w/ 9.8 ft cable, US/Canada/Mexico
WPMM	1A04	A		Limitless™ WPMM monitor with NPN output, 5.5 dBi omni antenna (tilt & swivel design) with remote magnetic mounting with 5 ft cable, US/Canada/Mexico
WPMM	1A05	A		Limitless™ WPMM monitor with NPN output, 5.5 dBi omni antenna (tilt & swivel design) with remote magnetic mounting with 10 ft cable, US/Canada/Mexico
WPMM	1A00	B		Limitless™ WPMM monitor with NPN output, no antenna, for use in all other approved countries
WPMM	1A02	B		Limitless™ WPMM monitor with NPN output, 2.2 dBi omni antenna (tilt & swivel design), for use in all other approved countries
WPMM	1A03	B		Limitless™ WPMM monitor w/ NPN output, 3.0 dBi omni antenna w/ remote adhesive mounting with 9.8 ft cable, for use in all other approved countries
WPMM	1A04	B		Limitless™ WPMM monitor with NPN output, 5.5 dBi omni antenna (tilt & swivel design) with remote magnetic mounting with 5 ft cable, for use in all other approved countries
WPMM	1A05	B		Limitless™ WPMM monitor with NPN output, 5.5 dBi omni antenna (tilt & swivel design) with remote magnetic mounting with 10 ft cable, for use in all other approved countries

#### Output: PNP normally open current sourcing

WPMM	1A00	A	P01	Limitless™ WPMM monitor with PNP output, no antenna, US/Canada/Mexico
WPMM	1A00	B	P01	Limitless™ WPMM monitor with PNP output, no antenna, for use in all other approved countries

#### Output: Solid state relay

WPMM	1A02	A	S01	Limitless™ WPMM monitor with solid state relay, 2.2 dBi omni antenna (tilt & swivel design), US/Canada/Mexico
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### Limitless™ WDRR Standard Listings

#### Part Number Description

WDRR	1A00	A	0A	Limitless™ DIN-Rail receiver, no antenna, US/Canada/Mexico
WDRR	1A03	A	0A	Limitless™ DIN-Rail receiver, 3.0 dBi omni antenna with remote adhesive mounting with 9.8 ft cable, US/Canada/Mexico
WDRR	1A05	A	0A	Limitless™ DIN-Rail receiver, 5.5 dBi omni antenna (tilt/swivel design) with remote magnetic mounting/10 ft cable, US/Canada/Mexico
WDRR	1A00	B	0A	Limitless™ DIN-Rail receiver, no antenna, for use in all other approved countries
WDRR	1A03	B	0A	Limitless™ DIN-Rail receiver, 3.0 dBi omni antenna with remote adhesive mounting with 9.8 ft cable, for use in all other approved countries
WDRR	1A05	B	0A	Limitless™ DIN-Rail receiver, 5.5 dBi omni antenna (tilt/swivel design) with remote magnetic mounting/10 ft cable, for use in all other approved countries

# Limitless™ Series

## Standard Antenna Listings

### Limitless™ WCA 200 Series Cable Standard Listings

Part Number	Description
WCA200RNPRSP-002	Limitless™ Series wireless cable assembly wth 200 Series cable, 2 ft length, reverse polarity N plug to reverse polarity SMA plug, use only with WAN06RNJ antenna
WCA200RNPRSP-010	Limitless™ Series wireless cable assembly wth 200 Series cable, 10 ft length, reverse polarity N plug to reverse polarity SMA plug, use only with WAN06RNJ antenna
WCA200RNJRSP-002	Limitless™ Series wireless cable assembly wth 200 Series cable, 2 ft length, reverse polarity SMA jack to reverse polarity SMA plug
WCA200RNJRSP-005	Limitless™ Series wireless cable assembly wth 200 Series cable, 5 ft length, reverse polarity SMA jack to reverse polarity SMA plug
WCA200RNJRSP-010	Limitless™ Series wireless cable assembly wth 200 Series cable, 10 ft length, reverse polarity SMA jack to reverse polarity SMA plug
WCA200RNJRSP-015	Limitless™ Series wireless cable assembly wth 200 Series cable, 15 ft length, reverse polarity SMA jack to reverse polarity SMA plug
WCA200RNJRSP-020	Limitless™ Series wireless cable assembly wth 200 Series cable, 20 ft length, reverse polarity SMA jack to reverse polarity SMA plug

### Limitless™ Wireless Antenna Standard Listings

Part Number	Description
WAN01RSP	Limitless™ Series straight wireless antenna with 2.2 dBi gain, reverse polarity SMA plug, connector mount (RP-SMA)
WAN02RSP	Limitless™ Series tilt/swivel wireless antenna with 2.2 dBi gain, reverse polarity SMA plug, connector mount (RP-SMA)
WAN03RSP	Limitless™ Series flat wireless antenna with 3 dBi gain, reverse polarity SMA plug, adhesive mount with 3,05 m [10 ft] cable
WAN04RSP*	Limitless™ Series tilt/swivel wireless antenna with 5.5 dBi gain, reverse polarity SMA plug, connector mount (RP-SMA)
WAN05RSP*	Limitless™ Series tilt/swivel wireless antenna with 9 dBi gain, reverse polarity SMA plug, connector mount (RP-SMA)
WAN06RNJ*	Limitless™ Series straight wireless antenna with 8 dBi gain, reverse polarity N jack, bracket mount with 0,31 m [1 ft] cable
WAN07RSP	Limitless™ Series straight wireless antenna with 0 dBi gain, reverse polarity SMA plug, connector mount 0 dBi straight w/RP-SMA plug
WAN08RSP	Limitless™ Series right angle wireless antenna with 0 dBi gain, reverse polarity SMA plug, connector mount 0 dBi straight w/RP-SMA plug
WAN09RSP	Limitless™ Series low profile straight antenna with 3.0 dBi gain, reverse polarity SMA plug, mobile magnetic mount with 4,57 m [15 ft] cable
WAN10RSP	Limitless™ Series straight antenna with 5.0 dBi gain, reverse polarity SMA plug, mobile magnetic mount with 4,57 m [15 ft] cable
WAN11RSP*	Limitless™ Series low profile dome antenna with 4.0 dBi gain, reverse polarity SMA plug, mobile thru-hole screw mount with 3 m [9.8 ft] cable

\* not allowed for use with Country Code "B" Limitless™ products.



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