

# Wireless Panel-Mount Monitor

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## Limitless™ Monitor



### DESCRIPTION

The new Limitless™ product line combines the best of MICRO SWITCH™ limit switches with the latest commercial off-the-shelf wireless technology. The Wireless Panel Mount Monitor will provide a visual, audio and NPN output based on a

signal received from a Limitless™ switch. The Wireless Panel Mount Monitor will provide immediate indication of an actuator position change of the wireless limit switch.

### FEATURES

#### Wireless electrical design

- Radio (license-free and global): WPAN 802.15.4, 2.4 GHz, point-to-point
- FCC 15, IC, ACMA and ETSI approvals
- RoHS compliant
- EMI immunity
- Up to 304 m [1000 ft] line-of-sight communication range when used with a Limitless™ switch (sold separately)
- Reliable, flexible, and secure wireless transmission
- 10 Vdc to 30 Vdc supply with NPN Normally Open output
- Diagnostics options
- Can potentially monitor up to 16 wireless switches
- Field pairing function allows for rapid configuration (add or subtract switches)

#### 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
- Direct or remote mount antenna

### BENEFITS

- Ability to reconfigure and network multiple switches, or point-to-point with personalized addresses which allows for adding, subtracting or relocating Limitless™ switches easily
- Reduced installation/maintenance costs with no wiring to Limitless™ switches, conduit, strain relief, clips, connectors, connection boxes, etc.
- Snap-in panel or screw mount design allows flexibility in mounting locations
- LEDs/buzzer indicate Limitless™ switch actuation, low battery, RF signal loss, pairing function as well as diagnostic functions
- Communication security per the IEEE 802.15.4 standard (16-bit PAN (network) ID, 16-bit address and 128-bit security key)

### POTENTIAL APPLICATIONS

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

# Limitless™ Series

Description	Parameter
Product type	Limitless™ Panel Mount Monitor Series
Series name	WPMM Series
Availability	Global, license-free bands
Housing material	LCP, VECTRA E130i
Housing type	Snap-in panel or screw mount design
Radio type	WPAN 802.15.4, 2.4 GHz
Antenna type	Direct mount or remote antenna options; Omni directional
Signal range	Nominal 304 m* for International use (Europe and Australia due to signal restrictions); Nominal 1000 ft* for use in US and Canada *clear line of sight between Limitless™ switch and WPMM when using 2.2 dBi integral antenna
Supply voltage	10 Vdc to 30 Vdc
Supply current	750 mA
Output type	NPN current sinking; normally open
Load current	5 mA to 200 mA
Leakage current	50 uA max.
Voltage drop	1.75 Vdc max. @ max. load @ 25 °C [77 °F]
Terminal(s)	3
Termination	Quick connect, 0.25 in male blade
Sealing	IP67
Reverse polarity protection	Yes
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, 10 g, 6 mS, 3 axis
Vibration	IEC 60068-2-6; 10 Hz to 500 Hz w/ 0,35 mm peak-to-peak, 58 Hz to 500 Hz- 5g
Operating temperature	-40 °C to 85 °C [-40 °F to 185 °F]
Agency approvals and standards	FCC 15.247 Industry Canada RSS 210 ETSI, CE mark ACMA, C-Tick mark
UNSPSC code	20142601
UNSPSC commodity	20142601

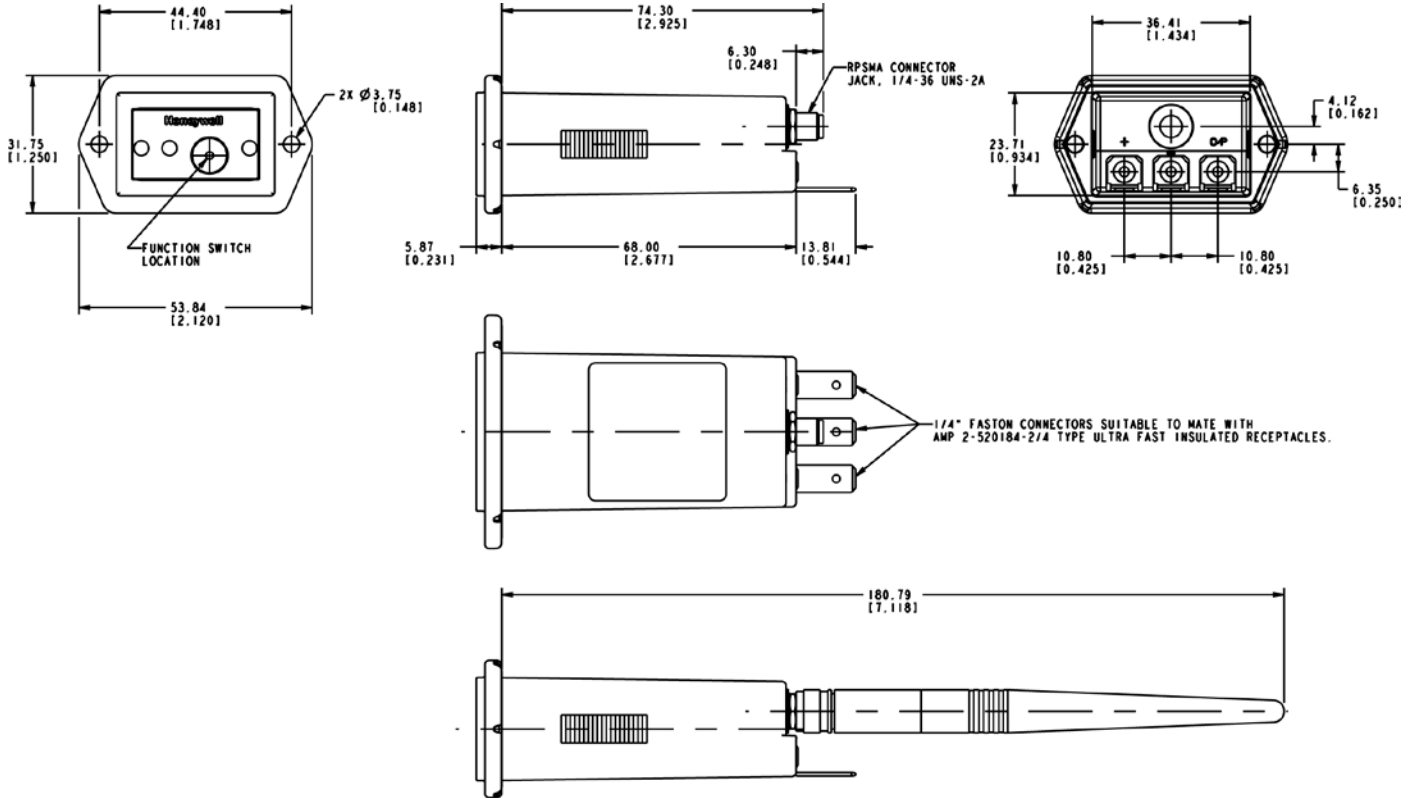
\* Actual range will vary depending on antenna, cables, and site topography.

## STANDARD LIMITLESS™ WPMM LISTINGS

Part Number	Description
WPMM1A02A	Limitless™ WPMM Series Monitor, 2.2 dBi omni antenna (tilt & swivel design), for use in US/Canada
WPMM1A03A	Limitless™ WPMM Series Monitor, 3.0 dBi omni antenna with remote adhesive mounting with 9.8 ft cable, for use in US/Canada
WPMM1A04A	Limitless™ WPMM Series Monitor, 5.5 dBi omni antenna (tilt & swivel design) with remote magnetic mounting with 5 ft cable, for use in US/Canada
WPMM1A05A	Limitless™ WPMM Series Monitor, 5.5 dBi omni antenna (tilt & swivel design) with remote magnetic mounting with 10 ft cable, for use in US/Canada

# Wireless Limit Switches

## LIMITLESS WPMM DIMENSIONS



WIRELESS MONITOR WITH INTEGRAL ANTENNA OPTION

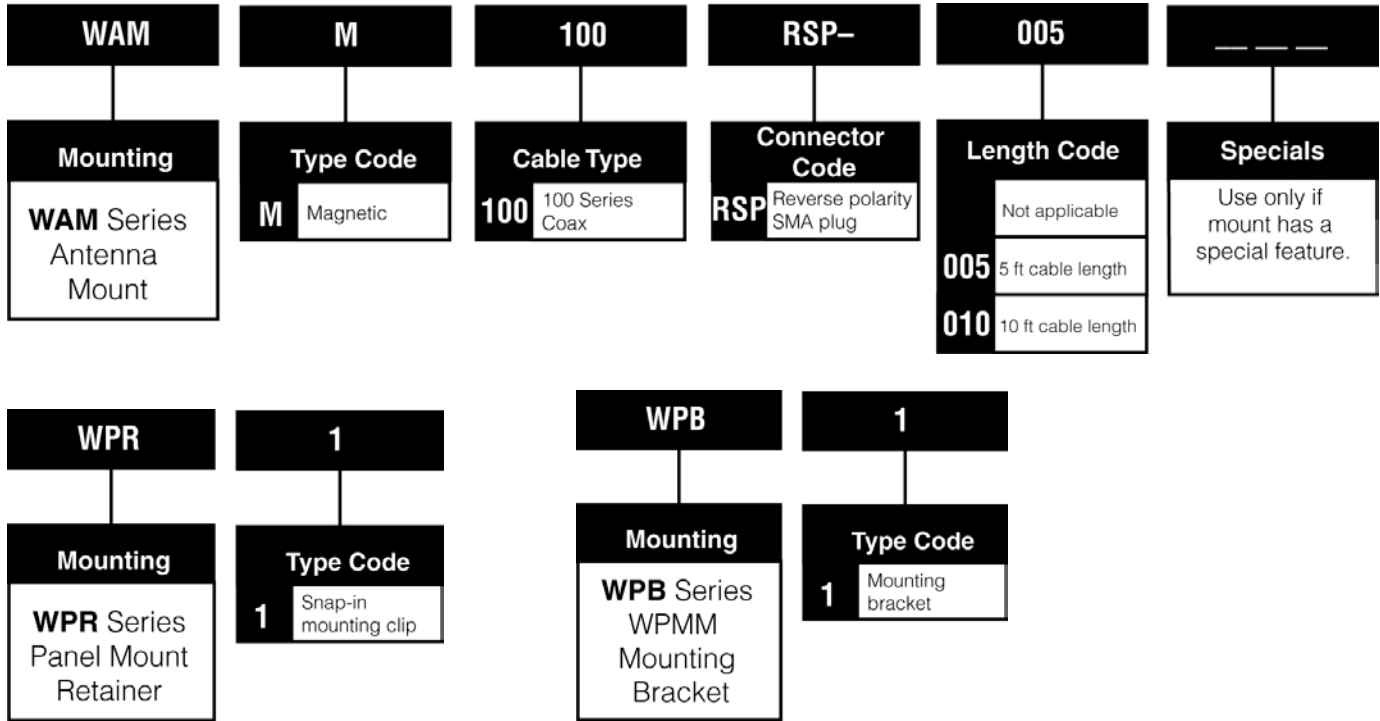
## WPMM MONITOR NOMENCLATURE

<b>WPMM</b>	<b>1</b>	<b>A</b>	<b>00</b>	<b>A</b>	<b>---</b>
<b>Monitor type</b>	<b>Software version</b>	<b>RF Code</b>	<b>Antenna type code</b>	<b>Country use code</b>	<b>Specials</b>
WPMM Series Monitor	1 Version 1	A 2.4 GHz; IEEE 802.15.4	<p><b>00</b> No antenna; RP-SMA connector jack</p> <p><b>01</b> 2.2 dBi omni with switch mount; straight design</p> <p><b>02</b> 2.2 dBi omni with switch mount; tilt and swivel design</p> <p><b>03</b> 3.0 dBi omni with remote adhesive mount/9.8 ft cable</p> <p><b>04</b> 5.5 dBi omni w/ remote mag. mount, tilt&amp;swivel/5 ft cable</p> <p><b>05</b> 5.5 dBi omni w/ remote mag. mount, tilt&amp;swivel/10ft cable</p> <p><b>06</b> 9.0 dBi omni w/ remote mag. mount, tilt&amp;swivel/5 ft cable</p> <p><b>07</b> 9.0 dBi omni w/ remote mag. mount, tilt&amp;swivel/10ft cable</p> <p><b>08</b> 8.0 dBi omni w/ remote bkt. mount, str. design/3 ft cable</p> <p><b>09</b> 8.0 dBi omni w/ remote bkt. mount, str. design/11 ft cable</p> <p><b>10</b> 2.2 dBi omni w/ remote mag. mount, tilt&amp;swivel/10 ft cable</p>	<p><b>A</b> US, Canada</p> <p><b>B</b> European Countries*</p> <p><b>C</b> Australia</p>	Use only if monitor has a special feature.

\*Antenna type codes 00-03, 05, 10; usage also allowed in country codes A & C.

# Limitless™ Series

## LIMITLESS™ MOUNTING OPTIONS



**WAMM100RSP-005/010 Magnetic Antenna Mount**



**WPR1 Panel Mount Retainer**

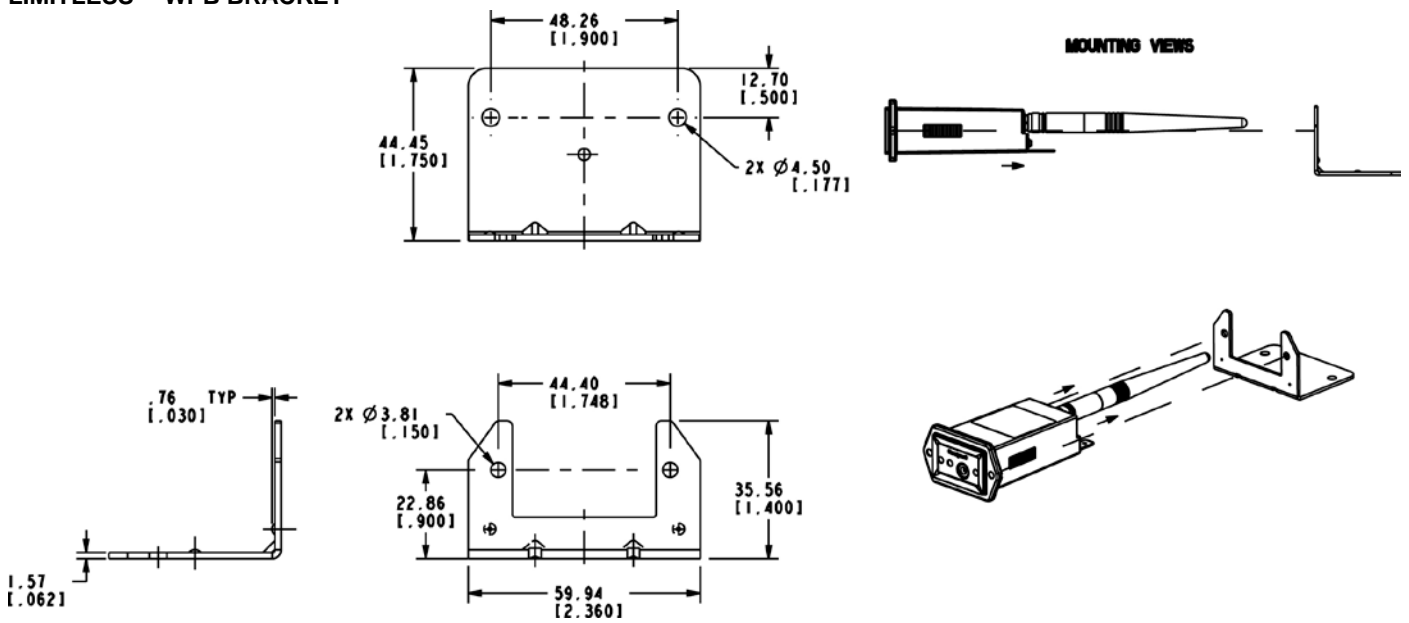


**WPB1 WPMM Mounting Bracket**

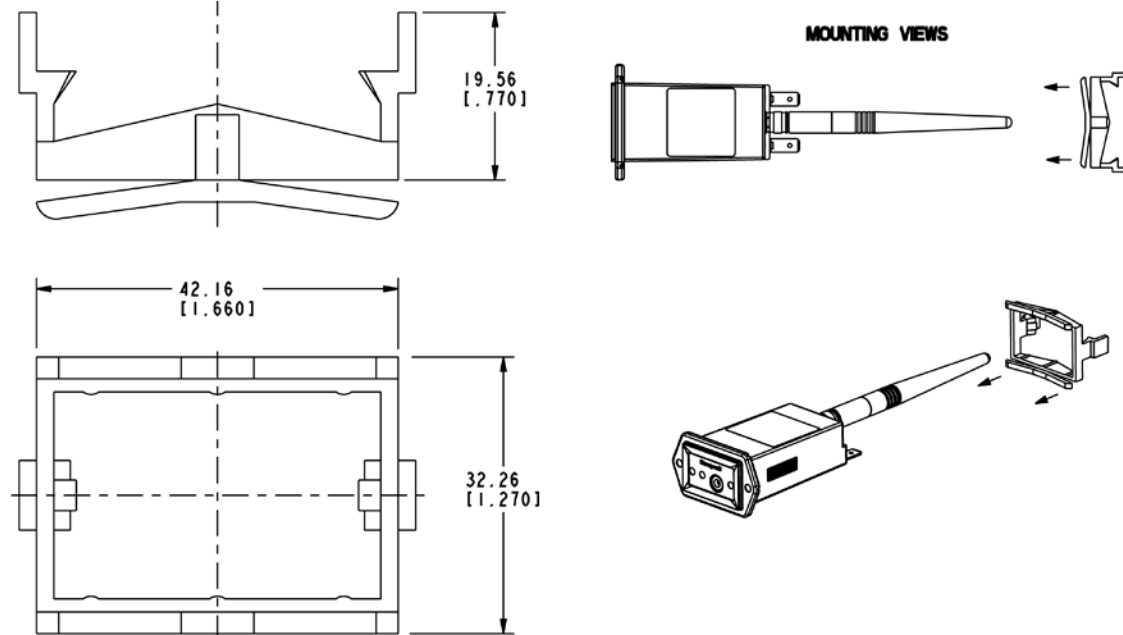


# Wireless Limit Switches

## LIMITLESS™ WPB BRACKET



## LIMITLESS™ WPR RETAINER



# Limitless™ Series

## LIMITLESS™ ANTENNA OPTIONS

WAN	01	RSP	— — —
<b>Antenna type</b>	<b>Antenna type code</b>	<b>Connector Code</b>	<b>Specials</b>
WAN Series Antenna	<b>01</b> 2.2 dBi omni; straight design <b>02</b> 2.2 dBi omni; tilt & swivel des. <b>03</b> 3.0 dBi omni with adhesive mount & 9.8 ft cable <b>04</b> 5.5 dBi omni;*** tilt & swivel des. <b>05</b> 9.0 dBi omni;*** tilt & swivel des. <b>06</b> 8.0 dBi omni w/ bracket, straight des. 1 ft cable	<b>RNJ</b> Reverse polarity N jack** <b>RSP</b> Reverse polarity SMA plug	Use only if antenna has a special feature.

\*\* Only used with 06 antenna type code  
 \*\*\* Limited outdoor exposure. Protect against direct rain, salt, snow, ice, etc.

## LIMITLESS™ ANTENNAS

WAN01RSP Straight Design Direct Mount Connector	WAN02RSP Tilt and Swivel Design, Direct Mount Antenna	WAN05RSP with WAMM100RSP-005 Tilt and Swivel Design, Magnetic Mount Antenna	WAN03RSP Flat Design, Adhesive Mount Antenna	WAN06RNJ Straight Design, Bracket Mount Antenna
				

# Wireless Limit Switches

## LIMITLESS™ ANTENNA CABLE OPTIONS

WCA	200	RNP	RSP-	010	— — —
<b>Cable type</b>	<b>Cable Type</b>	<b>Connector Code</b>	<b>Connector Code</b>	<b>Length Code</b>	<b>Specials</b>
WCA Series Cable	200 200 Series Coax	RNP Reverse polarity N plug	RSP Reverse polarity SMA plug	Not applicable 002 2 ft cable length 010 10 ft cable length	Use only if cable has a special feature.

## LIMITLESS™ CABLE ACCESSORIES

### WCA200RNP-RSP-002/010 Cable Assembly



# Limitless™ Series

## **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.**

## **WARNING**

Honeywell does not recommend using devices for critical control applications where there is, or may be, a single point of failure or where single points of failure may result in an unsafe condition. It is up to the end-user to weigh the risks and benefits to determine if the products are appropriate for the application based on security, safety and performance. Additionally, it is up to the end-user to ensure that the control strategy results in a safe operating condition if any crucial segment of the control solution fails.

**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 web site, 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.

## **SALES AND SERVICE**

Honeywell serves its customers through a worldwide network of sales offices, representatives and distributors. For application assistance, current specifications, pricing or name of the nearest Authorized Distributor, contact your local sales office or:

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