## Honeywell



Limitless ${ }^{\text {TM }}$ Wireless Hazardous Area Limit Switches WBX Series


Datasheet

## Limitless ${ }^{\text {M }}$ WBX Series <br> Wireless Hazardous Area Limit Switch

Honeywell's Limitless ${ }^{\text {TM }}$ WBX Series combines the best of Honeywell's MICRO SWITCH ${ }^{\text {TM }}$ Heavy Duty limit switches with a point-to-point (P2P) network. It has a variety of remote or built-in antenna options. Wireless-enabled limit switches can be used for position sensing and presence/absence detection for an endless number of applications.

The WBX 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, and operators.

Customers with a global footprint can utilize local Honeywell experts for application and solution support.

## What makes our switches better?

- Enables control in remote parts of application/machinery/ manufacturing plants, where wiring is not possible or feasible
- Ability to reconfigure and network multiple interfaces, or point-to-point with personalized addresses which allows for adding, subtracting, or relocating Limitless ${ }^{\top M}$ inputs easily
- Can reduce installation/maintenance costs with no wiring to Limitless ${ }^{\top \mathrm{M}}$ switches, conduit, strain relief, clips, connectors, junction boxes, etc.
- Wireless operation and signal transmission eliminates the need to physically send maintenance engineers into the field thus reducing installation and operating costs
- Provides an independent layer of protection for equipment, by giving an immediate indication that a remote mechanical device is not positioned or moving correctly
- Batteries are inexpensive, readily available worldwide, and easy to replace. No re-provisioning is required after a battery replacement
- Batteries are readily available and easy to replace


WIRELESS DESIGN<br>Radio (license-free and global) WPAN 802.15.4, 2.4 GHz, point-to-point (P2P) provides reliable, flexible, and secure wireless transmission. Up to $\mathbf{3 0 5} \mathbf{~ m}$ [1000 ft] line-of-sight communication range when used with a Limitless ${ }^{\text {TM }}$ WPMM Series wireless monitor, WDRR Series receiver module, or WMPR receiver module (sold separately).<br>The use of AES 128 bit encryption ensures that no unregistered node can successfully insert erroneous signals into a network or decode signals from a network, making the network secure from both eavesdropping and sabotage.

## Abilty to install in applications where not previously possible

## REMOTE CONTROL AND MONITORING

License-free RF wireless protocol standards (IEEE 802.15.4) allow for remote control and monitoring of processes and equipment.

## WIRELESS SWITCHING IN CLASSIFIED ATMOSPHERES

Designed to be used where other wireless products can not. Hazardous location approvals allow it to be used in a wide range of classified atmospheres, allowing for greater flexibility, making the Limitless ${ }^{\text {M }}$ WBX product application adaptable.

## A cost-effective solution

## WELL-SUITED FOR TOUGH ENVIRONMENTS

IP67 (self certified), NEMA 4 sealed metal enclosure, with direct or remote mount antenna options, allows for use in most harsh environments. Powder-coated aluminum housing enhances durability and resistance to corrosion.

## RECONFIGURABLE

Able to reconfigure multiple WBX Series switches easily allows for adding, subtracting, or relocating of Limitless ${ }^{\text {M }}$ WBX Series switches. Eliminates issues with wire connection integrity on moving equipment.

## REDUCES COSTS

Can reduce installation and maintenance costs because there are no wires, conduit, strain relief, clips, connectors, connection boxes, etc.

## OFF-THE-SHELF BATTERIES

Batteries are available from electrical supply houses and distributors. They are readily available worldwide, thereby eliminating the need for specialized batteries.

## GLOBAL USE

Designed for global availability, the WBX Series is suitable for use in most customer applications, simplifying the design-in process, eliminating tooling costs, and reducing manufacturing labor costs.

## Potential Applications



## INDUSTRIAL

- Agriculture machines
- Door position
- Grain diverters or flaps
- Hose attachment verification
- Material handling
- Paint robotics
- Pipeline pigs
- Pump stroke count
- Remote or temporary equipment
- Safety shower alarming
- Valve position


## TRANSPORTATION

- Agricultural equipment


## PRODUCT NOMENCLATURE



## Limitless ${ }^{\text {TM }}$ Wireless Hazardous Area Limit Switches

Table 1. Specifications

| Characteristic | Parameter |
| :---: | :---: |
| Series name | WBX Series |
| Product type | Limitless ${ }^{\text {TM }}$ Hazardous Area Limit Switches |
| Availability | global, license-free bands |
| Actuator | side rotary, top plunger, wobble stick |
| Lever type | many rotary lever options available |
| Housing material | powder-coated die-cast aluminum body |
| Radio/communication protocol | IEEE 802.15.4, 2.4 GHz radio; WPAN 802.15.4 |
| Data rate | 250 kbps |
| Operating frequency | ISM 2.4 GHz |
| Module transmit power | country use code A: 14 dBm max. country use code B: 8 dBm max. |
| Receive sensitivity (typ.) | -98 dBm |
| Periodic update interval (seconds) | field programmable interval: $1,5,10,30$, or 60 second intervals |
| Antenna type | direct or remote mount antenna options; omni directional; straight or elbow |
| Signal range (max.)* | nominal 305 m [1000 ft] clear line of sight between the WBX switch and monitor/receiver when using 2.0 dBi integral antenna |
| Battery | 3.6 Vdc Lithium Thionyl Chloride; AA size, quantity: 2 ; see battery details on page 6. |
| Battery life | one year at five-second update interval @ $25{ }^{\circ} \mathrm{C}$ [ $\left.77{ }^{\circ} \mathrm{F}\right]$ |
| Sealing | NEMA 1, 3, 4, 13; IP67 (self-certified) |
| EMC | latest applicable standards: EN 300 328, V1.8.1; EN 61326-1 (2012); EN 301 489-1, V1.9.2; EN 301 489-17, V2.2.1 |
| Shock | IEC 60068-2-27; half sine, $50 \mathrm{~g}, 6 \mathrm{mS}$ |
| Vibration | IEC 60068-2-6: 10 Hz to 58 Hz w/0,35 mm peak-to-peak, 58 Hz to $500 \mathrm{~Hz}, 10 \mathrm{~g}$ |
| Operating temperature | $-40^{\circ} \mathrm{C}$ to $70^{\circ} \mathrm{C}$ [-40 ${ }^{\circ} \mathrm{F}$ to $\left.158{ }^{\circ} \mathrm{F}\right]$ |
| Communication agency approvals and standards | FCC 15.247 and 15.209 <br> Industry Canada RSS 210 Gen Issue 8 <br> ETSI, CE mark, ACMA, C-tick mark |
|  | Standards: UL913 8th edition; CAN/CSA-C22.2 No. 157-92 (R2012) <br> UL 60079-0 edition 6; UL 60079-11 edition 6 <br> CSA C22.2 No. 60079-11 : 14 edition 2; CSA C22.2 No. 60079-0 : 11 edition 2 |
| cULus standards and certifications | Class I, Div 1, Groups A, B, C, D T4 Class II, Div 1, Groups E, F, G <br> Class I, Zone 1 AEx ia IIC T4 Ga Class I, Zone 0 AEx ia IIC T4 Ga <br> Class I, Zone 1 Ex ia IIC T4 Ga Class I, Zone 0 Ex ia IIC T4 Ga <br> Class II, Zone 21 AEx ia IIIC T135 ${ }^{\circ} \mathrm{C} \mathrm{Da}$ Class II, Zone $20 \mathrm{AEx} \mathrm{ia} \mathrm{IIIC} \mathrm{T135}{ }^{\circ} \mathrm{C} \mathrm{Da}$ <br>  Tambient $-40^{\circ} \mathrm{C}$ to $70^{\circ} \mathrm{C}$ |
| ATEX certification | Standards: EN 60079-0 : 2012+ A11 : 2013 <br> EN 60079-11 : 2012; EN 60079-26 : 2007 |
|  | Zone 1 Ex ia IIC T4 Ga Zone 0 Ex ia IIC T4 Ga <br> Zone 21 Ex ia IIIC T135  |
| IEC Ex certification | Standards: IEC 60079-0 edition 6.0; IEC 60079-11 edition 6.0; IEC 60079-26 edition 2.0 |
|  | Zone 1 Ex ia IIC T4 Ga Zone 0 Ex ia IIC T4 Ga <br> Zone 21 Ex ia IIIC $7135^{\circ} \mathrm{C} \mathrm{Da}$ Zone 20 Ex ia IIIC T135 ${ }^{\circ} \mathrm{C} \mathrm{Da}$ |

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## WBX Series: Point-to-Point Network

Table 2. Battery Specifications*

| Characteristic | Technical Data (typical values @ $25^{\circ} \mathrm{C}$ for batteries stored) |
| :---: | :---: |
| Honeywell battery part number | WBT7 |
| Battery size (each cell) | $\varnothing 14,5 \mathrm{~mm} \times 50,5 \mathrm{~mm} \mathrm{~L}$ [Ø $0.57 \mathrm{in} \times 1.99 \mathrm{in} \mathrm{L}]$ |
| Battery type | Lithium Thionyl Chloride |
| Nominal capacity @ 2 mA , up to 2 V | 2.4 Ah |
| Rated voltage | 3.6 V |
| Max. recommended continuous current | 200 mA |
| Max. pulse current capability | 400 mA |
| Weight | 17.6 g [0.62 oz] per cell |
| Lithium metal content | 0.7 g per cell (approx.) |
| Volume | 8 cc per cell |
| Operating temperature | $-55^{\circ} \mathrm{C}$ to $85{ }^{\circ} \mathrm{C}\left[-67{ }^{\circ} \mathrm{F}\right.$ to $\left.185{ }^{\circ} \mathrm{F}\right]$ |
| Storage temperature (recommended) | $30^{\circ} \mathrm{C}\left[86{ }^{\circ} \mathrm{F}\right]$ |
| Suggested alternate sources of battery cell supply | Xeno Energy (part number XL-060F) Bipower (part number ER14505H) Tadiran (part number TL-5903/S) |

## EXAMPLE POINT-TO-POINT SYSTEM DIAGRAM

Figure 1. WBX Limitless ${ }^{\text {TM }}$ Point-to-Point System Diagram


## Limitless ${ }^{\text {TM }}$ Wireless Hazardous Area Limit Switches

## MOUNTING AND REFERENCE DIMENSIONS

Figure 2. Limitless ${ }^{\text {TM }}$ WBX Series Side Rotary Dimensions


## Operating Head Code "A"

Straight Antenna

## Operating Head Code "A" $90^{\circ}$ Antenna

## MECHANICAL OPERATING SPECIFICATIONS

for Side Rotary Actuators
Table 3. Operating Specifications (Mechanical)*

| Characteristic |  |
| :--- | :---: |
| Pretravel | $17.5^{\circ} \mathrm{max}$. |
| Overtravel | $60^{\circ} \mathrm{min}$. |
| Differential travel | $7^{\circ} \mathrm{max}$. |
| Total travel | $85^{\circ}$ ref |
| Operating torque | $0,452 \mathrm{Nm}[4$ in-lb] max. |
| Full travel torque | $0,678 \mathrm{Nm}[6 \mathrm{in}-\mathrm{lb}] \max$. |

* Operating point given in relation to lever mounting shaft


## WBX Series: Point-to-Point Network

Figure 3. Limitless ${ }^{\text {TM }}$ WBX Series Pin Plunger Dimensions



Operating Head Code " $C$ " $90^{\circ}$ Antenna

## MECHANICAL OPERATING SPECIFICATIONS

for Pin Plunger Actuators
Table 4. Operating Specifications (Mechanical)*

| Characteristic | Operating Head Code "C" Top Plunger Plain |
| :--- | :---: |
| Pretravel | $1,78 \mathrm{~mm}[0.07 \mathrm{in} \mathrm{max]}$. |
| Overtravel | $4,83 \mathrm{~mm}[0.19 \mathrm{in} \mathrm{min]}$. |
| Differential travel | $0,51 \mathrm{~mm}[0.02 \mathrm{in} \mathrm{max]}$. |
| Operating force | $20,02 \mathrm{~N}[4.5 \mathrm{lb}$ max.] |
| Operating point | $57,94 \mathrm{~mm} \pm 0,51 \mathrm{~mm}[2.281 \mathrm{in} \pm 0.02 \mathrm{in}]$ |
| Full overtravel force | $40 \mathrm{~N}[9 \mathrm{lb}$ max.] |

* Operating point given in relation to top mounting hole



## Limitless ${ }^{\text {TM }}$ Wireless Hazardous Area Limit Switches

Figure 4. Limitless ${ }^{\text {TM }}$ WBX Series Wobble Dimensions


Operating Head Code "J" Straight Antenna

Operating Head Code "J" $90^{\circ}$ Antenna

## MECHANICAL OPERATING SPECIFICATIONS

for Wobble Stick Actuators
Table 5. Operating Specifications (Mechanical)*

| Characteristic | Operating Head Code "J" Wobble Stick |
| :--- | :---: |
| Pretravel | $25,4 \mathrm{~mm}[1.0 \mathrm{in}]$ approx. radius |
| Operating force | $283 \mathrm{~g}[10.0 \mathrm{oz}]$ max. |

## WBX Series: Point-to-Point Network

Table 6. WBX Series Available Levers
Note: In hazardous locations, non-sparking actuators are required.


## Limitless ${ }^{\text {TM }}$ Wireless Hazardous Area Limit Switches

Table 7. WBX Series Lever Order Guide


|  | Catalog Listing | Material | Roller Dia. mm [in] | Roller Width mm [in] | $\begin{array}{\|l\|} \hline \text { Roller } \\ \text { Mounting } \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Offset - $\mathbf{3 8 , 1}[1.5]$ in radius |  |  |  |  |  |
|  | LSZ55 | Rollerless | n/a | n/a | n/a |
|  | LSZ55A | Nylon | 19 [0.75] | 6,35 [0.25] | Back |
|  | LSZ55C | Nylon | 19 [0.75] | 6,35 [0.25] | Front |
|  | LSZ55E | Nylon | 19 [0.75] | 12,7 [0.50] | Front |
|  | LSZ55K | Nylon | 38,1 [1.5] | 6,35 [0.25] | Front |
| Short fixed-1.3 in radius |  |  |  |  |  |
|  | LSZ59A | Nylon | 19 [0.75] | 6,35 [0.25] | Front |
|  | LSZ59C | Nylon | 19 [0.75] | 6,35 [0.25] | Back |
| Rubber roller levers |  |  |  |  |  |
|  | $\begin{aligned} & \text { LSZ51Y } \\ & 38,11.5 \text { radius } \\ & \text { (standard) } \end{aligned}$ | Rubber | 50 [2.0] | 12,7 [0.5] | front |
|  | $\begin{aligned} & \text { LSZ55Y } \\ & 38,11.5 \text { 1adus } \\ & \text { (offset) } \end{aligned}$ | Rubber | 50 [2.0] | 12,7[0.5] | front |
|  | LSZ52Y 38,1 to $89[1.5$ to 0.5 ] Jadus (adjutable) | Rubber | 50 [2.0] | 12,7 [0.5] | front |

* May require orientation of switch and lever to enable gravity to help restore switch to free position.


## WBX Series: Point-to-Point Network

Table 8. Antenna Listings/Order Code Specifications
Antennas can be ordered with the Limitless ${ }^{\text {TM }}$ Wireless switches by inserting the Antenna Type Code into the part number as shown in the nomenclature. Also, switches can be ordered without antennas, by using the "00" Antenna Type Code in the part number. Antennas may also be ordered separately using the Part Numbers below.

Table 8. Antenna Options - Country Code A

| Ant. type code |  | Part number | Replacement antenna mount or cable | Antenna design | Ant. gain (max.) | Connector/ mounting | Dimensions | Antenna material | Cable materia/type | Mount material |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 00 |  | WAN03RSP | - | flat | 3.0 dBi | RP-SMA plug/adhesive mount | $\begin{aligned} & 115 \mathrm{~mm} L \times 22,1 \mathrm{~mm} W \times \\ & 4,57 \mathrm{~mm} \mathrm{D}[4.53 \mathrm{in} L \times \\ & 0.87 \mathrm{in} W \times 0.18 \mathrm{in} \mathrm{D]} 3 \mathrm{~m} \\ & {[9.8 \mathrm{ft} \text { cable }} \end{aligned}$ | UV stable ABS | UV stable PVC/ RG-174 coax | - |
| 00 |  | WAN04RSP | WAMM100RSP-005 base with $1,52 \mathrm{~m}[5 \mathrm{ft}]$ of cable | $\begin{gathered} \text { tilt/ } \\ \text { swivel } \end{gathered}$ | 5.5 dBi | RP-SMA plug/direct mount | $\begin{gathered} \emptyset 12,7 \mathrm{~mm} \times 208,28 \mathrm{~mm} \mathrm{~L} \\ {[\emptyset 0.50 \mathrm{in} \times 8.20 \mathrm{in} \mathrm{L]}} \end{gathered}$ | UV stable molded polyurethane | UV stable PVC/ RG-174 coax | UV stable black ABS |
| 00 |  | WAN04RSP | WAMM100RSP-010 base with $3,05 \mathrm{~m}$ [10 $\mathrm{ft}]$ of cable | $\begin{gathered} \text { tilt/ } \\ \text { swivel } \end{gathered}$ | 5.5 dBi | RP-SMA plug/direct mount | $\begin{gathered} \varnothing 12,7 \mathrm{~mm} \times 208,28 \mathrm{~mm} \mathrm{~L} \\ {[\emptyset 0.50 \mathrm{in} \times 8.20 \mathrm{in} \mathrm{~L}]} \end{gathered}$ | UV stable molded polyurethane | UV stable PVC/ RG-174 coax | UV stable black ABS |
| 00 |  | WAN05RSP | WAMM100RSP-005 base with $1,52 \mathrm{~m}[5 \mathrm{ft}]$ of cable | $\begin{aligned} & \text { tilt/ } \\ & \text { swivel } \end{aligned}$ | 9.0 dBi | RP-SMA plug/direct mount | $\begin{gathered} \varnothing 12,7 \mathrm{~mm} \times 384,05 \mathrm{~mm} \mathrm{~L} \\ {[\emptyset 0.50 \mathrm{in} \times 15.12 \mathrm{in} \mathrm{L]}} \end{gathered}$ | UV stable molded polyurethane | UV stable PVC/ RG-174 coax | UV stable black ABS |
| 00 |  | WAN05RSP | WAMM100RSP-010 base with $3,05 \mathrm{~m}[10$ $\mathrm{ft]}$ of cable | $\begin{aligned} & \text { tilt/ } \\ & \text { swivel } \end{aligned}$ | 9.0 dBi | RP-SMA plug/direct mount | $\begin{gathered} \emptyset 12,7 \mathrm{~mm} \times 384,05 \mathrm{~mm} \mathrm{~L} \\ {[\varnothing 0.50 \mathrm{in} \times 15.12 \mathrm{in} \mathrm{L]}} \end{gathered}$ | UV stable molded polyurethane | UV stable PVC/ RG-174 coax | $\begin{aligned} & \text { UV stable } \\ & \text { black } \\ & \text { ABS } \end{aligned}$ |
| 00 |  | WAN06RNJ | WCA200RN- <br> PRSP-002 coax cable assembly $0,682 \mathrm{~m}$ [2 ft] | straight | 8.0 dBi | RP-N jack/ bracket | $\begin{gathered} \emptyset 33,5 \mathrm{~mm} \times 427,9 \mathrm{~mm} \mathrm{~L} \\ {[\emptyset 1.32 \mathrm{in} \times 16.85 \mathrm{in} \mathrm{~L}]} \end{gathered}$ | UV stable fiberglass | UV stable PVC/ RG-316 coax, UV stable Polyethylene/200 Series coax | $\begin{aligned} & 300 \text { SE- } \\ & \text { ries SST } \\ & \text { aluminum } \\ & \text { alloy } \end{aligned}$ |
| 00 | $\approx$ | WAN06RNJ | WCA200RN-PRSP-010 coax cable assembly $3,05 \mathrm{~m}$ [10 ft] | straight | 8.0 dBi | RP-N jack/ bracket | $\begin{gathered} \text { I } 33,5 \mathrm{~mm} \times 427,9 \mathrm{~mm} \mathrm{~L} \\ {[\emptyset 1.32 \mathrm{in} \times 16.85 \mathrm{in} \mathrm{L]}} \end{gathered}$ | UV stable fiberglass | UV stable PVC/ RG-316 coax, UV stable Polyethylene/200 Series coax | $\begin{aligned} & 300 \text { SE- } \\ & \text { ries SST } \\ & \text { aluminum } \\ & \text { alloy } \end{aligned}$ |
| 00 |  | WAN08RSP | - | $90^{\circ}$ | 0 dBi | RP-SMA plug/direct mount | $\begin{aligned} & \varnothing 8,0 \mathrm{~mm} \times 29 \mathrm{~mm} \mathrm{~L} \\ & {[\varnothing 0.34 \mathrm{in} \times 1.14 \mathrm{in} \mathrm{~L}]} \end{aligned}$ | UV stable | - | - |
| 00 |  | WAN09RSP | - | $\begin{gathered} \text { low } \\ \text { profile } \\ \text { mobile } \end{gathered}$ | 3.0 dBi | RP-SMA plug/magnetic | $\begin{gathered} \emptyset 76,2 \mathrm{~mm} \times 115 \mathrm{~mm} \mathrm{~L} \\ {[\emptyset 3.0 \mathrm{in} \times 4.54 \mathrm{in} \mathrm{L]}} \\ 4,57 \mathrm{~m}[15 \mathrm{ft}] \text { cable } \end{gathered}$ | UV stable ABS plastic | UV stable black PVC | Nickel- <br> plated <br> steel |
| 00 |  | WAN10RSP | - | straight | 5.0 dBi | RP-SMA plug/magnetic | $\begin{gathered} 076,2 \mathrm{~mm} \times 230,1 \mathrm{~mm} \mathrm{~L} \\ {[\varnothing 3.0 \mathrm{in} \times 9.06 \mathrm{in} \mathrm{L]}} \\ 4,57 \mathrm{~m}[15 \mathrm{ft} \text { cable } \end{gathered}$ | Nickel-plated steel | UV stable black PVC | Nickel- <br> plated <br> steel |
| 00 |  | WAN11RSP | - | low profile mobile | 4.0 dBi | RP-SMA plug/thruhole screw | $\begin{aligned} & \emptyset 39 \mathrm{~mm} \times 42,4 \mathrm{~mm} \mathrm{~L} \\ & {[\emptyset 1.54 \mathrm{in} \times 1.67 \mathrm{in} \mathrm{~L}]} \end{aligned}$ | UV stable black PVC | UV stable black PVC | Nickel- <br> plated <br> steel |
| 12 |  | WAN12RSP | - | straight | 2.0 dBi | RP-SMA plug/direct mount | $\begin{gathered} \varnothing 10 \mathrm{~mm} \times 79,5 \mathrm{~mm} \mathrm{~L} \\ {[\varnothing 0.39 \mathrm{in} . \times 3.13 \mathrm{in} . \mathrm{L}]} \end{gathered}$ | UV stable ABS plastic | - | - |

## Limitless ${ }^{\text {™ }}$ Wireless Hazardous Area Limit Switches

Table 9. Antenna Options - Country Code B

| Ant. type code |  | Part number | Replacement antenna mount or cable | Antenna design | Ant. gain (max.) | Connector/ mounting | Dimensions | Antenna material | Cable material/ type | Mount material |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 00 |  | WAN03RSP | - | flat | 3.0 dBi | RP-SMA plug/adhesive mount | $\begin{gathered} 115 \mathrm{~mm} \mathrm{~L} \times 22,1 \mathrm{~mm} \mathrm{~W} x \\ 4,57 \mathrm{~mm} D[4.53 \mathrm{in} \mathrm{Lx} \\ 0.87 \mathrm{in} W \times 0.18 \text { in D] } 3 \mathrm{~m} \\ {[9.8 \mathrm{ft}] \text { cable }} \end{gathered}$ | UV stable ABS | UV stable PVC/ RG-174 coax | - |
| 00 |  | WAN04RSP | WAMM100RSP-005 base with $1,52 \mathrm{~m}$ [5 ft] of cable | tilt/ swivel | 5.5 dBi | RP-SMA plug/direct mount | $\begin{gathered} \varnothing 12,7 \mathrm{~mm} \times 208,28 \mathrm{~mm} \mathrm{~L} \\ {[\emptyset 0.50 \mathrm{in} \times 8.20 \mathrm{in} \mathrm{L]}} \end{gathered}$ | UV stable molded polyurethane | UV stable PVC/ RG-174 coax | UV stable black ABS |
| 00 |  | WAN04RSP | WAMM100RSP-010 base with $3,05 \mathrm{~m}[10$ ft ] of cable | tilt/ swivel | 5.5 dBi | RP-SMA plug/direct mount | $\begin{gathered} \varnothing 12,7 \mathrm{~mm} \times 208,28 \mathrm{~mm} \mathrm{~L} \\ {[\emptyset 0.50 \mathrm{in} \times 8.20 \mathrm{in} \mathrm{L]}} \end{gathered}$ | UV stable molded polyurethane | UV stable PVC/ RG-174 coax | UV stable black ABS |
| 00 |  | WAN08RSP | - | $90^{\circ}$ | 0 dBi | RP-SMA plug/direct mount | $\begin{gathered} \varnothing 8,0 \mathrm{~mm} \times 29 \mathrm{~mm} \mathrm{~L} \\ {[00.34 \mathrm{in} \times 1.14 \mathrm{in} \mathrm{L]}} \end{gathered}$ | UV stable | - | - |
| 00 |  | WAN09RSP | - |  | 3.0 dBi | RP-SMA <br> plug/magnetic | $\begin{gathered} \emptyset 76,2 \mathrm{~mm} \times 115 \mathrm{~mm} \mathrm{~L} \\ {[\emptyset 3.0 \mathrm{in} \times 4.54 \mathrm{in} \mathrm{L]}} \\ 4,57 \mathrm{~m}[15 \mathrm{tt}] \text { cable } \end{gathered}$ | UV stable ABS plastic | UV stable black PVC | Nickelplated steel |
| 00 |  | WAN10RSP | - | straight | 5.0 dBi | RP-SMA <br> plug/magnetic | $\begin{gathered} 076,2 \mathrm{~mm} \times 230,1 \mathrm{~mm} \mathrm{~L} \\ {[03.0 \mathrm{in} \times 9.06 \mathrm{in} \mathrm{L]}} \\ 4,57 \mathrm{~m}[15 \mathrm{ft}] \text { cable } \end{gathered}$ | Nickel-plated steel | UV stable black PVC | Nickelplated steel |
| 00 |  | WAN11RSP | - |  | 4.0 dBi | RP-SMA plug/thruhole screw | $\begin{aligned} & 039 \mathrm{~mm} \times 42,4 \mathrm{~mm} \mathrm{~L} \\ & {[\varnothing 1.54 \mathrm{in} \times 1.67 \mathrm{inL}]} \end{aligned}$ | UV stable black PVC | UV stable black PVC | Nickelplated steel |
| 12 |  | WAN12RSP | - | straight | 2.0 dBi | RP-SMA plug/direct mount | $\begin{aligned} & 010 \mathrm{~mm} \times 79,5 \mathrm{~mm} \mathrm{~L} \\ & {[00.39 \mathrm{in} . \times 3.13 \mathrm{in} . \mathrm{L}]} \end{aligned}$ | UV stable ABS plastic | - | - |

## WBX Series: Point-to-Point Network

## ACCESSORIES

Table 10. Replacement Parts

| Part Number | Description |
| :--- | :--- | :--- |
| WAN12RSP | $2.4 \mathrm{GHz}, 2.0 \mathrm{dBi}$ RP-SMA WLAN antenna |
| WAN20RAD | Replacement WBX radome |

Table 11. Cable and Coax Accessories
Limitless ${ }^{\text {TM }}$ Series wireless cable assembly with 200 Series cable, 2 ft length,
reverse polarity N plug to reverse polarity SMA plug, use only with WANO6RNJ antenna

Table 12. Base Accessories
Magnetic antenna base with $1,52 \mathrm{~m}[5 \mathrm{ft}]$ of cable
Magnetic antenna base with 3,05 m [10 ft ] of cable
WPM100RSP-005
WPBM Wireless panel mount reciever mounting bracket

## Limitless ${ }^{\text {TM }}$ Wireless Hazardous Area Limit Switches

Table 13. Catalog Listings
This Honeywell datasheet supports the following Limitless ${ }^{\text {TM }}$ WBX Series Catalog Listings

|  | Part number | Description |
| :---: | :---: | :---: |
|  | WBX1A00ABA | Limitless ${ }^{\text {TM }}$ WBX Series Hazardous Area Limit Switch, RP-SMA antenna jack, side rotary momentary, IEEE 802.15.4 radio specification |
|  | WBX1A12ABA | Limitless ${ }^{\text {TM }}$ WBX Series Hazardous Area Limit Switch, 2.0 dBi omni w/switch mount; straight design, side rotary momentary, IEEE 802.15.4 radio specification |
|  | WBX1A00ABA3 | Limitless ${ }^{\text {TM }}$ WBX Series Hazardous Area Limit Switch, RP-SMA antenna jack, side rotary momentary to right, IEEE 802.15.4 radio specification |
|  | WBX1A12ABA3 | Limitless ${ }^{\top M}$ WBX Series Hazardous Area Limit Switch, 2.0 dBi omni w/switch mount; straight design, side rotary momentary to right, IEEE 802.15.4 radio specification |
|  | WBX1A00ABA4 | Limitless ${ }^{\text {TM }}$ WBX Series Hazardous Area Limit Switch, RP-SMA antenna jack, side rotary momentary to left, IEEE 802.15.4 radio specification |
|  | WBX1A12ABA4 | Limitless ${ }^{\text {™ }}$ WBX Series Hazardous Area Limit Switch, 2.0 dBi omni w/switch mount; straight design, side rotary momentary to left, IEEE 802.15 .4 radio specification |
|  | WBX1A00ABC | Limitless ${ }^{\text {TM }}$ WBX Series Hazardous Area Limit Switch, RP-SMA antenna jack, top pin plunger, IEEE 802.15.4 radio specification |
|  | WBX1A12ABC | Limitless ${ }^{\top M}$ WBX Series Hazardous Area Limit Switch, 2.0 dBi omni w/switch mount; straight design, top pin plunger, IEEE 802.15.4 radio specification |
|  | WBX1A00ABJ7A | Limitless ${ }^{\text {TM }}$ WBX Series Hazardous Area Limit Switch, RP-SMA antenna jack, wobble stick, IEEE 802.15.4 radio specification |
|  | WBX1A12ABJ7A | Limitless ${ }^{\text {M }}$ WBX Series Hazardous Area Limit Switch, 2.0 dBi omni w/switch mount; straight design, wobble stick, IEEE 802.15.4 radio specification |
|  | WBX1A14ABA | Limitless ${ }^{\text {TM }}$ WBX Series Hazardous Area Limit Switch, 2.0 dBi omni w/switch mount; right angle design, side rotary momentary, IEEE 802.15.4 radio specification |
|  | WBX1A14ABC | Limitless ${ }^{\text {™ }}$ WBX Series Hazardous Area Limit Switch, 2.0 dBi omni w/switch mount; right angle design, pin plunger, IEEE 802.15.4 radio specification |

## ADDITIONAL INFORMATION

The following associated literature is available on the Honeywell web site at sensing.honeywell.com:

- Product installation and technical manual (32307000)
- Product range guide
- Product nomenclature tree
- Limitless ${ }^{\text {TM }}$ product brochure
- Product application-specific information
- Application flyer: Increase employee safety with layers of protection: Limitless ${ }^{\top M}$ safety shower and eye wash alarm solutions
- Application note: Limitless ${ }^{\text {TM }}$ wireless hazardous location switch for grain handling
- Application note: Limitless ${ }^{\text {TM }}$ wireless hazardous location switch for valve position detection
- White paper: Wireless switches offer unlimited benefits


## A WARNING <br> 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.

## A 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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[^0]:    * Actual range will vary depending upon antennas, cables, and site topography.

