



Wireless Global Limit Switch (EN 50041)

Limitless™ Switch

DESCRIPTION

The new Limitless™ product line combines the best of MICRO SWITCH™ global limit switches with the latest commercial off-the-shelf wireless technology. Wireless-enabled limit switches can now 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 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
- RoHS Compliant
- EMI Immunity
- Up to 304 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

- EN50041 metal enclosure
- IP67; NEMA 1,4,12,13
- Full complement of operating heads and levers
- Modular construction of components
- Design for ease of installation

BENEFITS

- Enables presence/absence detection in remote parts of application / machinery, where wiring is an issue or not feasible
- 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 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

POTENTIAL APPLICATIONS

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

Limitless™ Series

| Description | Parameter |
|--------------------------------|---|
| Series name | WGLA Series |
| Product type | Limitless™ Global Limit Switches |
| Availability | Global, license-free bands |
| Operating Characteristics | Reference wireless global limit switch specifications (WGLA Series) |
| Actuator | Side rotary, top plunger, top roller, top roller lever |
| Lever type | Rotary lever included w/side rotary– other lever options available |
| Housing material | Powder coated zinc die-cast |
| Housing type | EN 50041 |
| Radio | WPAN 802.15.4; 2.4GHz |
| Antenna type | Direct or remote mount 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 monitor/receiver when using 2.2 dBi integral antenna |
| Battery | 3.6 Vdc Lithium Thionyl Chloride; 2/3 AA size (Est. life >1yr) Manufactured by Uniwell, part number DEV-10-0009 |
| Sealing | IP67; NEMA 1, 4, 12, 13 |
| 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; 10-500Hz w/ 0,35 mm peak-to-peak, 58-500 Hz- 5g |
| Operating temperature | -40 °C to 85 °C [-40 °F to 185 °F] (side rotary) -25 °C to 85 °C [-13 °F to 185 °F] (all other housing styles) |
| Agency approvals and standards | FCC 15.247 Industry Canada RSS 210 ETSI, CE mark ACMA, C-Tick mark |
| UNSPSC code | 20142601 |
| UNSPSC commodity | 20142601 |
| Sealed | Industrial |

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

Wireless Limit Switches

NOMENCLATURE TREE (Not all configurations are immediately available.)

| | | | | | | | | | |
|-------------------------|-------------------------|--------------------------------|---|---|---|--|--|---|---|
| WGLA | 1 | A | 00 | A | A | 1 | A- | 3 | --- |
| Switch type | Software version | RF Code | Antenna type code | Country use code | Head code | Lever code | Roller code mm [in] | Modification code | Specials |
| WGLA Series Wireless | 1 Version 1 | A 2.4 GHz; IEEE 802.15.4 | 00 No antenna; RP-SMA connector jack 01 2.2 dBi omni w/ switch mount; straight design 02 2.2 dBi omni w/ switch mount; tilt and swivel design 03 3.0 dBi omni with remote adhesive mount/9.8 ft cable 04 5.5 dBi omni w/ remote mag. mount, tilt&swivel/5 ft cable 05 5.5 dBi omni w/ remote mag. mount, tilt&swivel/10ft cable 06 9.0 dBi omni w/ remote mag. mount, tilt&swivel/5 ft cable 07 9.0 dBi omni w/ remote mag. mount, tilt&swivel/10ft cable 08 9.0 dBi omni w/ remote bkt. mount, str. design/3 ft cable 09 8.0 dBi omni w/ remote bkt. mount, str. design/11 ft cable 10 2.2 dBi omni w/ remote mag. mount, tilt&swivel/10 ft cable | A US, Canada B European Countries* C Australia | A Side rotary, momentary B Top pin plunger C Top roller plunger D Top roller lever | Not applicable 1 Std. fixed length 2 Adjustable roller 3 Yoke roller 4 Adjustable rod 5 Offset | Not applicable A 19 x 6.35 [0.75 x 0.25] nylon B 19 x 6.35 [0.75 x 0.25] steel D 38.1 x 6.35 [1.5 x 0.25] nylon J 200 mm aluminum adjustable rod K 140 mm aluminum adjustable rod N 318 mm stainless steel adjustable rod W 43.0 x 12.7 [1.5 x 0.5] rubber Y 50.8 x 12.7 [2.0 x 0.5] rubber T 19 x 8.76 [0.75 x 0.345] stainless steel | Not applicable 3 Head assembled with actuator to right side 4 Head assembled with actuator to left side 5 Head assembled with actuator to mounting surface 6 Roller perpendicular to mounting surface | Use only if switch has a special feature. |

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

Monitor Nomenclature

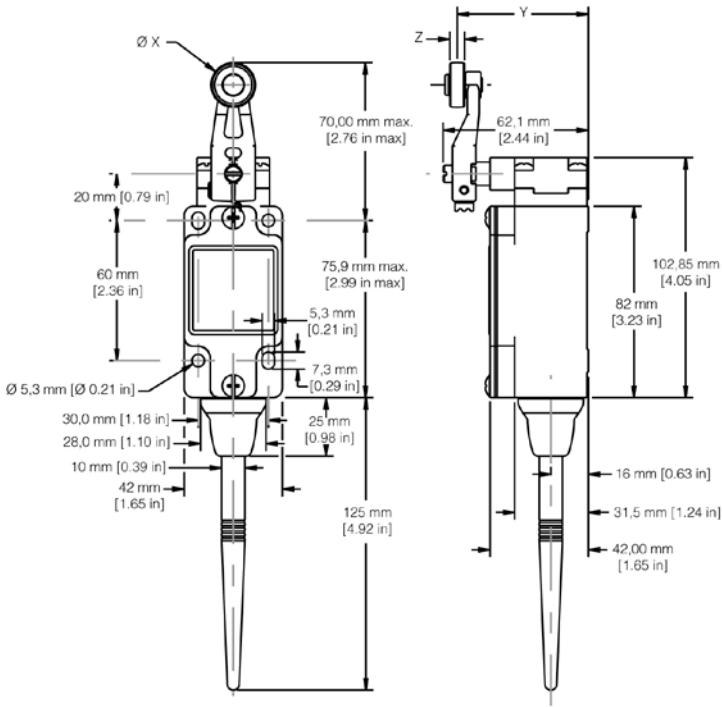
| | | | | | |
|------------------------|-------------------------|--------------------------------|---|---|--|
| WPMM | 1 | A | 00 | A | --- |
| Monitor type | Software version | RF Code | Antenna type code | Country use code | Specials |
| WPMM Series Monitor | 1 Version 1 | A 2.4 GHz; IEEE 802.15.4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

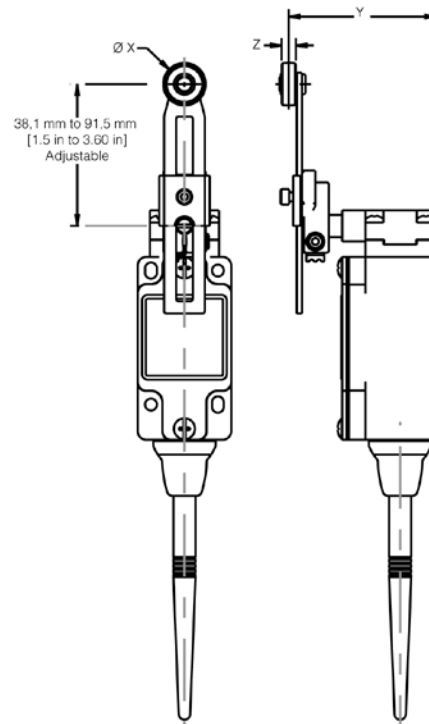
DIMENSIONS

Side Rotary Head with GLZ51 Series Lever



| 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] |

Side Rotary Head with GLZ52 Series Lever

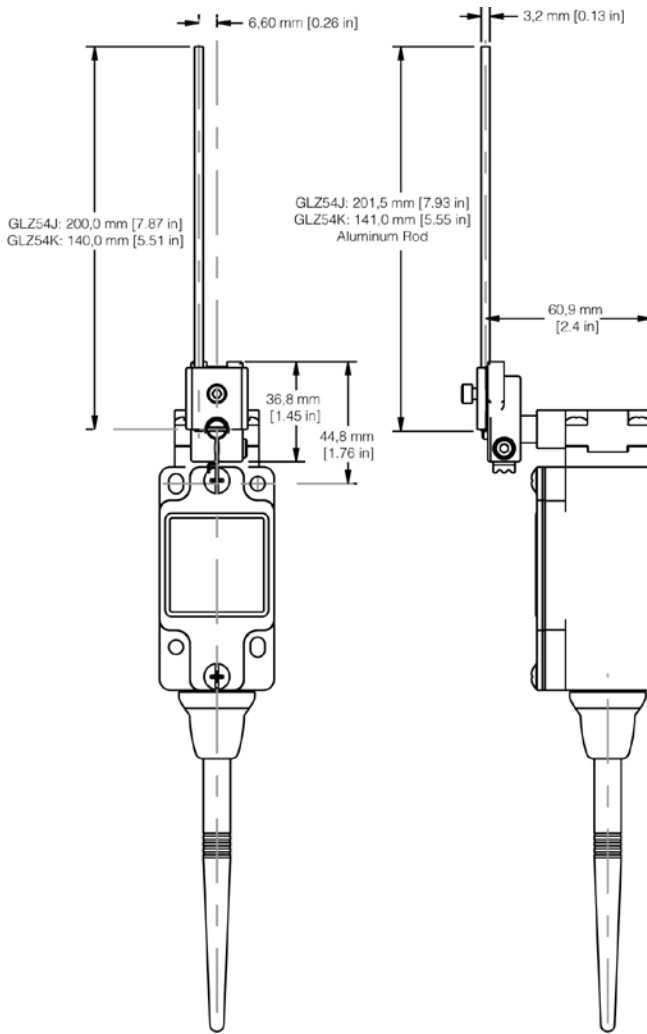


| Lever | Roller Material | X Dim | Y Dim | Z Dim |
|--------|-----------------|-------------------|-------------------|-------------------|
| GLZ52A | Nylon | 19,1 mm [0.75 in] | 65,9 mm [2.59 in] | 6,4 mm [0.25 in] |
| GLZ52B | Steel | 19,1 mm [0.75 in] | 65,9 mm [2.59 in] | 6,4 mm [0.25 in] |
| GLZ52D | Nylon | 38,1 mm [1.5 in] | 65,9 mm [2.59 in] | 6,4 mm [0.25 in] |
| GLZ52E | Nylon | 19,1 mm [0.75 in] | 79,4 mm [3.13 in] | 33,1 mm [1.30 in] |
| GLZ52W | Rubber | 40,0 mm [1.57 in] | 71,5 mm [2.81 in] | 12,7 mm [0.5 in] |
| GLZ52Y | Rubber | 50,0 mm [1.97 in] | 68,8 mm [2.71 in] | 10,0 mm [0.39 in] |

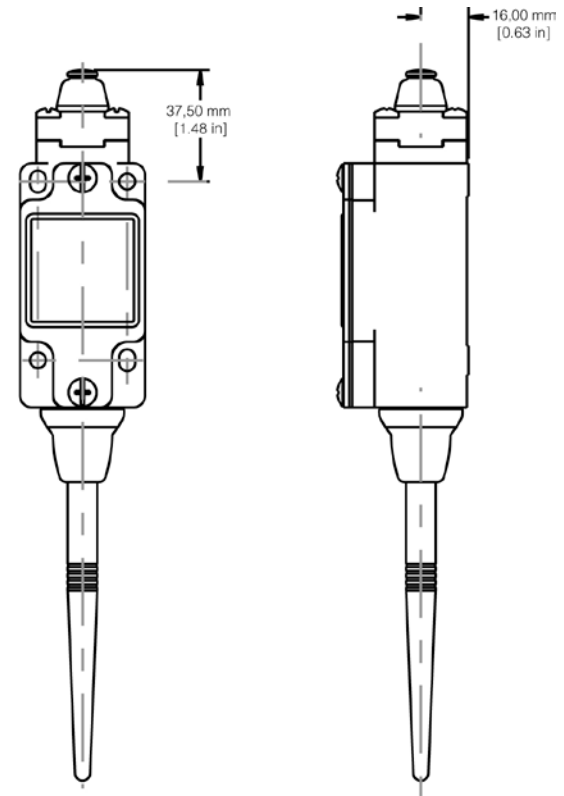
Wireless Limit Switches

DIMENSIONS

Side Rotary Head with GLZ54 Series Lever



Top Pin Plunger Head



Limitless™ Series

STANDARD WGLA LISTINGS

| Part Number | Description |
|--------------|---|
| WGLA1A01AA1A | Limitless™ Series WGLA Global Limit Switch, 2.2 dBi omni straight antenna, use in US/Canada, side rotary – momentary, standard lever with 19 mm x 6,35 mm [0.75 in x 0.25 in] nylon roller |
| WGLA1A01AA1B | Limitless™ Series WGLA Global Limit Switch, 2.2 dBi omni straight antenna, use in US/Canada, side rotary – momentary, standard lever with 19 mm x 6,35 mm [0.75 in x 0.25 in] steel roller |
| WGLA1A01AA4J | Limitless™ Series WGLA Global Limit Switch, 2.2 dBi omni straight antenna, use in US/Canada, side rotary – momentary, 200 mm aluminum adjustable rod actuator |
| WGLA1A01AB | Limitless™ Series WGLA Global Limit Switch, 2.2 dBi omni straight antenna, use in US/Canada, top pin plunger |
| WGLA1A01AC | Limitless™ Series WGLA Global Limit Switch, 2.2 dBi omni straight antenna, use in US/Canada, top roller plunger |
| WGLA1A01AD | Limitless™ Series WGLA Global Limit Switch, 2.2 dBi omni straight antenna, use in US/Canada, top roller lever |
| WGLA1A02AA1A | Limitless™ Series WGLA Global Limit Switch, 2.2 dBi omni tilt & swivel antenna, use in US/Canada, side rotary – momentary, standard lever with 19 mm x 6,35 mm [0.75 in x 0.25 in] nylon roller |
| WGLA1A02AA1B | Limitless™ Series WGLA Global Limit Switch, 2.2 dBi omni tilt & swivel antenna, use in US/Canada, side rotary – momentary, standard lever with 19 mm x 6,35 mm [0.75 in x 0.25 in] steel roller |
| WGLA1A02AA4J | Limitless™ Series WGLA Global Limit Switch, 2.2 dBi omni tilt & swivel antenna, use in US/Canada, side rotary – momentary, 200 mm aluminum adjustable rod actuator |
| WGLA1A02AB | Limitless™ Series WGLA Global Limit Switch, 2.2 dBi omni tilt & swivel antenna, use in US/Canada, top pin plunger |
| WGLA1A02AC | Limitless™ Series WGLA Global Limit Switch, 2.2 dBi omni tilt & swivel antenna, use in US/Canada, top roller plunger |
| WGLA1A02AD | Limitless™ Series WGLA Global Limit Switch, 2.2 dBi omni tilt & swivel antenna, use in US/Canada, top roller lever |
| WGLA1A04AA1A | Limitless™ Series WGLA Global Limit Switch, 5.5 dBi omni remote magnetic mount/tilt & swivel antenna with 5ft of cable, use in US/Canada, side rotary – momentary, standard lever with 19 mm x 6,35 mm [0.75 in x 0.25 in] nylon roller |
| WGLA1A04AA1B | Limitless™ Series WGLA Global Limit Switch, 5.5 dBi omni remote magnetic mount/tilt & swivel antenna with 5ft of cable, use in US/Canada, side rotary – momentary, standard lever with 19 mm x 6,35 mm [0.75 in x 0.25 in] steel roller |
| WGLA1A04AA4J | Limitless™ Series WGLA Global Limit Switch, 5.5 dBi omni remote magnetic mount/tilt & swivel antenna with 5ft of cable, use in US/Canada, side rotary – momentary, 200 mm aluminum adjustable rod actuator |
| WGLA1A04AB | Limitless™ Series WGLA Global Limit Switch, 5.5 dBi omni remote magnetic mount/tilt & swivel antenna with 5ft of cable, use in US/Canada, top pin plunger |
| WGLA1A04AC | Limitless™ Series WGLA Global Limit Switch, 5.5 dBi omni remote magnetic mount/tilt & swivel antenna with 5ft of cable, use in US/Canada, top roller plunger |
| WGLA1A04AD | Limitless™ Series WGLA Global Limit Switch, 5.5 dBi omni remote magnetic mount/tilt & swivel antenna with 5ft of cable, use in US/Canada, top roller lever |

Wireless Limit Switches

ACCESSORIES NOMENCLATURE

Antenna Nomenclature

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

** 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 |
|---|---|--|--|---|
|  |  |  |  |  |

Limitless™ Series

Cable Assembly Nomenclature



Limitless™ Cable Accessories

WCA200RNPRSP-002/010 Cable Assembly



Antenna Mounting Nomenclature



Limitless™ Panel Mount Accessories

WAMM100RSP-005/010 Magnetic Antenna Mount



Wireless Limit Switches

STANDARD ACCESSORIES

| Part Number | Description |
|------------------|--|
| WAN03RSP | Flat wireless antenna with 3 dBi gain, reverse polarity SMA plug, adhesive mount with 10 ft of cable |
| WAN06RNJ | Straight wireless antenna with 8 dBi gain, reverse polarity N jack, bracket mount with 1 ft of cable |
| WAN01RSP | Straight wireless antenna with 2.2 dBi gain, reverse polarity SMA plug, connector mount (RP-SMA) |
| WAN02RSP | Tilt/swivel wireless antenna with 2.2 dBi gain, reverse polarity SMA plug, connector mount (RP-SMA) |
| WAN04RSP | Tilt/swivel wireless antenna with 5.5 dBi gain, reverse polarity SMA plug, connector mount (RP-SMA) |
| WAN05RSP | Tilt/swivel wireless antenna with 9 dBi gain, reverse polarity SMA plug, connector mount (RP-SMA) |
| WCA200RNPRSP-002 | 200 Series coax cable assembly, reverse polarity N plug, reverse polarity SMA plug, 2 ft of cable |
| WCA200RNPRSP-010 | 200 Series coax cable assembly, reverse polarity N plug, reverse polarity SMA plug, 10 ft of cable |
| WAMM100RSP-005 | Magnetic antenna mounting, 100 Series coax cable, reverse polarity SMA plug with 5 ft of cable |
| WAMM100RSP-010 | Magnetic antenna mounting, 100 Series coax cable, reverse polarity SMA plug with 10 ft of cable |

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.

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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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Honeywell

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JONHON

«JONHON» (основан в 1970 г.)

Разъемы специального, военного и аэрокосмического назначения:

(Применяются в военной, авиационной, аэрокосмической, морской, железнодорожной, горно- и нефтедобывающей отраслях промышленности)

«FORSTAR» (основан в 1998 г.)

ВЧ соединители, коаксиальные кабели, кабельные сборки и микроволновые компоненты:

(Применяются в телекоммуникациях гражданского и специального назначения, в средствах связи, РЛС, а так же военной, авиационной и аэрокосмической отраслях промышленности).



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