New Product Introduction: Limitless™ WGLA Series Global Limit Switch and WPMM Monitor

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Limitless™ Series WGLA and WPMM Series

WGLA Series

WPMM Series

Limitless™ Series WGLA Series

- Introduction – Overview
  - Limitless™ Series 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 to position sensing and presence/absence detection
  - This series is especially beneficial for remote monitoring applications where wiring or wire maintenance is not physically possible or economically feasible
  - Limitless™ solutions should prove to be cost effective when compared with traditional, wired limit switch solutions
    - Based on installation costs, on-going maintenance, and wiring integrity

Limitless™ Series WGLA Series

- Background

  - Designed remote monitoring applications where wiring or wire maintenance is not physically possible or economically feasible

  - Combines greater flexibility with proven harsh-duty packaging that results in increased efficiencies and improved safety for machine and equipment OEMs and operators

  - Up to 304 m [1000 ft] communication range when used with WPMM wireless monitor

  - EN 50041 housing (WGLA Series)

  - IP67; NEMA 1, 4, 12, 13

  - Full complement of operating heads and levers

Limitless™ Series WPMM Monitor

- Background
  - Designed remote monitoring applications where wiring or wire maintenance is not physically possible or economically feasible
  - Combines greater flexibility with proven harsh-duty packaging that results in increased efficiencies and improved safety for machine and equipment OEMs and operators
  - Reliable, flexible, and secure wireless transmission
  - 10 Vdc to 30 Vdc supply with NPN Normally Open output
  - Diagnostics options
  - IP67
  - Potentially can monitor multiple switches
  - Panel-mount enclosure
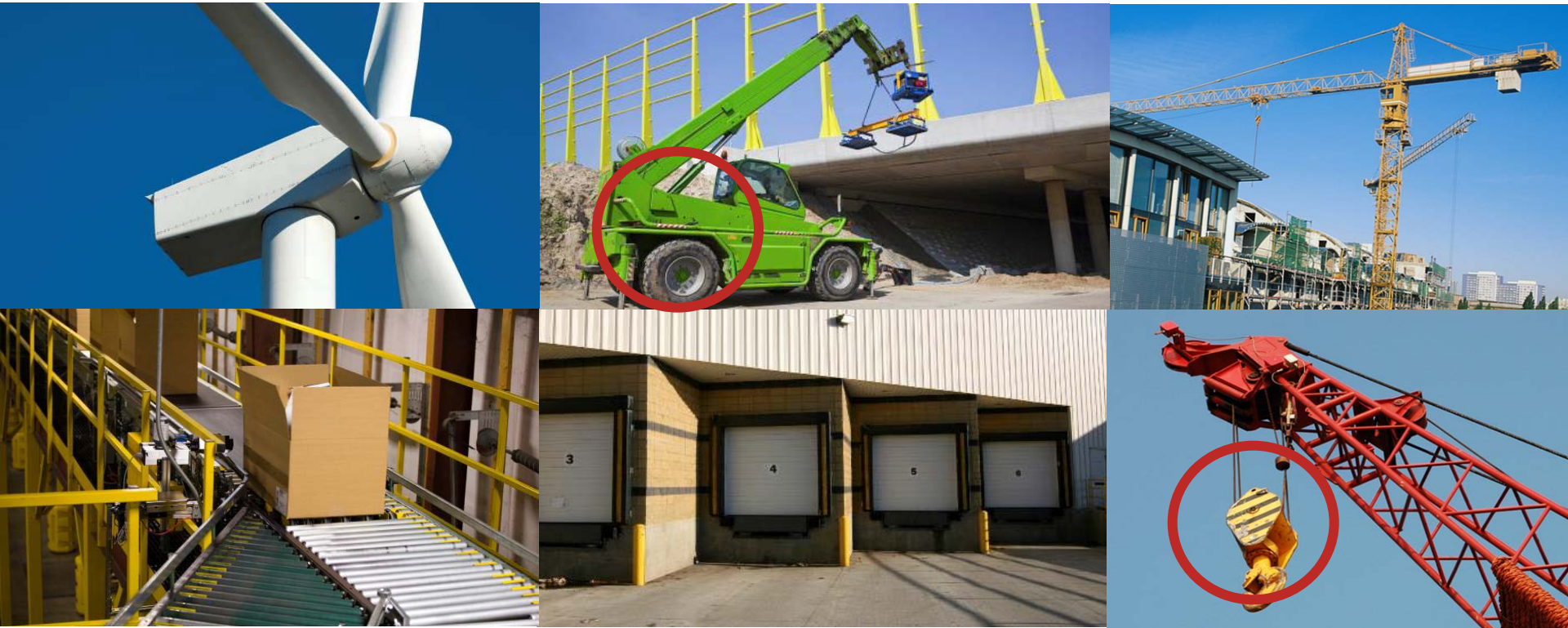   - Snap-in or screw mount

Limitless™ Series WGLA and WPMM Series

- Potential Applications – Industrial
  - Valve position
  - Crane boom/jib/skew position
  - Lifts
  - Material handling
  - Presses, conveyors
  - Construction/Ag machines
  - Remote or temporary equipment
  - Moveable machinery
  - Grain diverters or flaps
  - Door position
  - Hose attachment verification
  - Specialty machines

Limitless™ WGLA Series Switches and WPMM Series Monitor

Limitless™ Series WGLA and WPMM Series

Industrial, Transportation, Process, and Power Applications

Limitless™ WGLA Series Switches and WPMM Series Monitor

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Limitless™ Series WGLA and WPMM Series

- Features and Benefits
  - Enables presence/absence detection in remote parts of applications or machinery where wiring is an issue or not feasible
  - Integration of existing wireless technology with proven reliability of Honeywell's MICRO SWITCH limit switch series
  - Ability to reconfigure
    - Allows adding, subtracting, or relocating or Limitless™ switches
  - Output options
    - Panel mount monitor (visual, audible, NPN)
    - DIN-Rail mount receiver (visual, NPN/PNP, relay) *June release*
  - 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

Limitless™ Series WGLA and WPMM Series

- Competitive Differentiators
  - Functionality
    - Meets existing wireless protocol standards and mounting configurations
    - Maintains ability to add more I/O devices as needed
  - Installed cost
    - Reduces costs of wiring, installation, and maintenance for all devices and equipment
  - Flexibility
    - Can be quickly reconfigured, expanded, or relocated
    - Ability to sense position where previously not possible or feasible
    - Provides increased productivity (uptime), reduced component complexity, and reduced need for human exposure to danger
  - Honeywell
    - An extension of Honeywell's vast energy-driven experience and resources

Limitless™ WGLA Series Switches and WPMM Series Monitor

How the Limitless™ Series Provides Value to Customers

For (customer)	**ROLE**: Mobile equipment, Material Handling, OEM Machines, etc….. **POTENTIAL APPLICATIONS**: Any existing applications, as well as new applications where tethered devices are not economical, feasible, or where traditional wiring and connection integrity issues reduce reliability. Or where added safety and functionality can be realized though the elimination of wires
… that need (problem to be solved)	Ability to wirelessly monitor and signal presence, absence or position
… Honeywell's	Limitless™ Wireless Switch Portfolio

… provides

CUSTOMER BENEFITS

Existing Applications

- **Ability to remotely monitor processes/equipment**
- **Increased productivity (Up-time)**
- **Reduced installation/maintenance costs**
- **Retro-fit – Commissioning options**
- **Reduced component complexity**
- **Reduced human intervention = Safety**
- **Reduced troubleshooting complexity**

New Applications

- **Ability to monitor remote processes/equipment**
- **Reduce need for human exposure to danger**
- **Facilitate temporary or configurable sensing grids or barriers**

Functionality

Installed Cost

Flexibility

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HOW HONEYWELL DELIVERS

Competitive differentiation

- **Wireless connectivity**
  - Existing wireless protocol standards
  - Exiting mounting configurations
  - Ability to add additional I/O as needed

- **Reliability & Quality**
  - + Fifty Years of harsh duty packaging experience

- **Broad & deep array of product options**
  - Modularity provides options for housing, indication actuator styles, mounting types, radios, etc.

- **Global agency approvals**
  UL, CSA, CE, ATEX, IECX, FCC, SIL, CCC

- **Honeywell**
  - **Broad limit switch portfolio with existing configurations**
  - Switch and Sensor application experience
  - Understanding of switch/sensing technology
  - Understanding of interconnectability with existing systems

Limitless™ Series WGLA and WPMM Series

- **Training and Customer Visits**
  - Available from:
    - Director of Strategic Marketing: <u>Todd Hanson</u>, +1 763.954.4382
    - Applications Engineer: <u>Greg Aaby</u>, +1 815.235.5533

Limitless™ Series WGLA and WPMM Series

- Samples
  - Available to order on iCOM
  - See listings on next slides
- Demo Case available
- Product Availability
  - Now

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Limitless™ Series WGLA Series

- ## How to Order

Available through iCOM now. In stock for immediate delivery	
Listing	**Description**
WGLA1A01AA1A	Limitless™ Series WGLA Global Limit Switch, 2.1 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 rollers
WGLA1A01AA1B	Limitless™ Series WGLA Global Limit Switch, 2.1 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 rollers
WGLA1A01AA4J	Limitless™ Series WGLA Global Limit Switch, 2.1 dBi omni straight antenna, use in US/Canada, side rotary – momentary, 200 mm aluminum adjustable rod actuator
WGLA1A01AB	Limitless™ Series WGLA Global Limit Switch, 2.1 dBi omni straight antenna, use in US/Canada, top pin plunger
WGLA1A01AC	Limitless™ Series WGLA Global Limit Switch, 2.1 dBi omni straight antenna, use in US/Canada, top roller plunger
WGLA1A01AD	Limitless™ Series WGLA Global Limit Switch, 2.1 dBi omni straight antenna, use in US/Canada, top roller lever
WGLA1A02AA1A	Limitless™ Series WGLA Global Limit Switch, 2.1 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 rollers
WGLA1A02AA1B	Limitless™ Series WGLA Global Limit Switch, 2.1 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 rollers
WGLA1A02AA4J	Limitless™ Series WGLA Global Limit Switch, 2.1 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, 2.1 dBi omni tilt & swivel antenna, use in US/Canada, top pin plunger
WGLA1A02AC	Limitless™ Series WGLA Global Limit Switch, 2.1 dBi omni tilt & swivel antenna, use in US/Canada, top roller plunger
WGLA1A02AD	Limitless™ Series WGLA Global Limit Switch, 2.1 dBi omni tilt & swivel antenna, use in US/Canada, top roller lever

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Limitless™ Series WGLA Series

- ## How to Order

Available through iCOM now. In stock for immediate delivery	
Listing	**Description**
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 rollers
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 rollers
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

Limitless™ Series WPMM Series

- ## How to Order

Available through iCOM now. In stock for immediate delivery	
Listing	**Description**
WPMM1A02A	Limitless™ WPMM Series Monitor, 2.4 GHz, 2.1 dBi omni antenna (tilt & swivel design), for use in US/Canada
WPMM1A03A	Limitless™ WPMM Series Monitor, 2.4 GHz, 3.0 dBi omni antenna with remote adhesive mounting with 9.8 ft cable, for use in US/Canada
WPMM1A04A	Limitless™ WPMM Series Monitor, 2.4 GHz, 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, 2.4 GHz, 5.5 dBi omni antenna (tilt & swivel design) with remote magnetic mounting with 10 ft cable, for use in US/Canada

Limitless™ Series WGLA and WPMM Accessories

- ## How to Order

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 2.1 dBi gain, reverse polarity SMA plug, connector mount (RP-SMA)
WAN02RSP	Tilt/swivel wireless antenna with 2.1 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

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Limitless™ Series WGLA and WPMM Series

- For more information
  - [Application Note](#)
  - [Installation Technical Manual – WGLA Series](#)
  - [Installation Technical Manual – WPMM Series](#)
  - [Limitless Microsite](#)
  - [Line Guide](#)
  - [Quick Start Guide – WGLA Series](#)
  - [Quick Start Guide – WPMM Series](#)
  - [Product Data Sheet – WGLA Series](#)
  - [Product Data Sheet – WPMM Series](#)
  - [White Paper](#)

Limitless™ WGLA Series Switches and WPMM Series Monitor

Warnings

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Warnings

⚠ 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.

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.

⚠ WARNING

MISUSE OF DOCUMENTATION

- The information presented in this document is for reference only. DO NOT USE this document as product installation information.
- 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.