

# Wireless Pushbutton Switches

A2W



- A wireless call button without a battery
- Confirm reception with LED

# Innovative Switch That Connects People and Machines Wirelessly

Manufacturing sites continue to require more versatile and flexible production systems due to frequent changeover of low volume production.

OMRON wireless switches offer:

- Production lines without layout restrictions
- Simple addition to existing facilities
- Installation on moving parts





## Omron's unique technologies change manufacturing

Self-generated power created by button operation. A design **WITHOUT BATTERIES** eliminates the need for maintenance.

Even in environments with noise or poor visibility, the pushbutton **LED INDICATOR** provides reception confirmation.

922.5MHz frequency band reduces interference, achieving highly reliable **WIRELESS COMMUNICATION**.

# A Reliable Wireless Switch

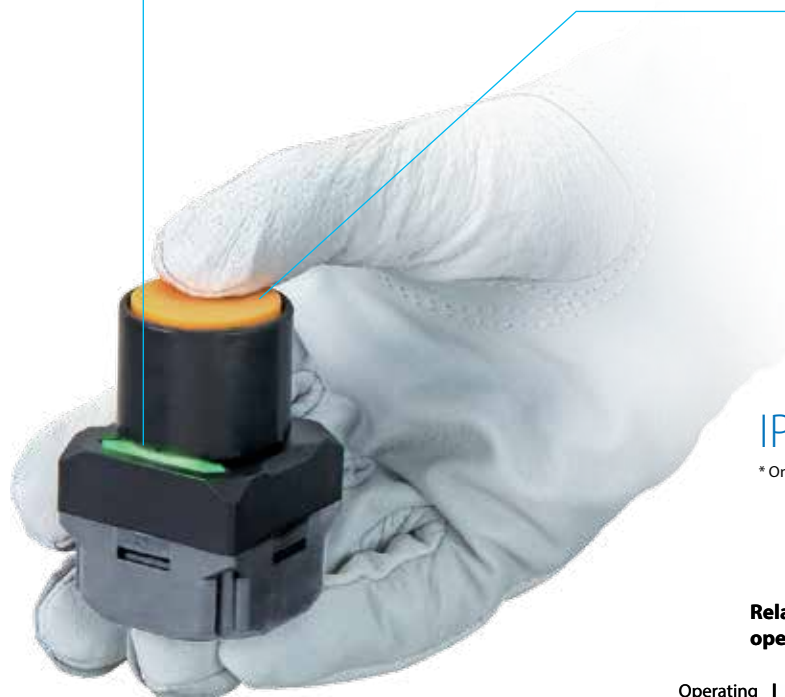
Patent pending

## Reception Confirmation LED

**Successful reception is confirmed by LED.**

Detailed wireless communication status can be monitored.

Reception confirmation LED	Status
Green	Reception success (received field strength "Strong")
Yellow	Reception success (received field strength "Weak")
Red	Reception failure
Not Lit	Pushbutton fault (no signal transmission from Pushbutton)



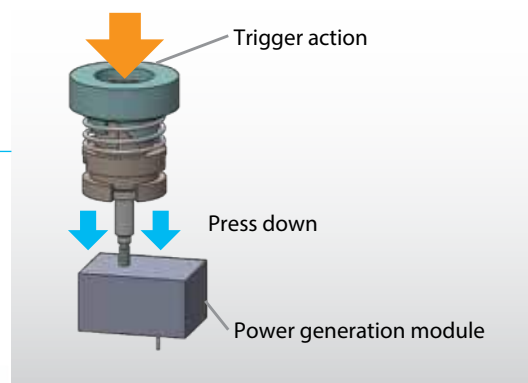
Tactile feedback even with gloves on

Patent pending

## No batteries required due to Self-generating Power

**Actuation force power eliminates battery management.**

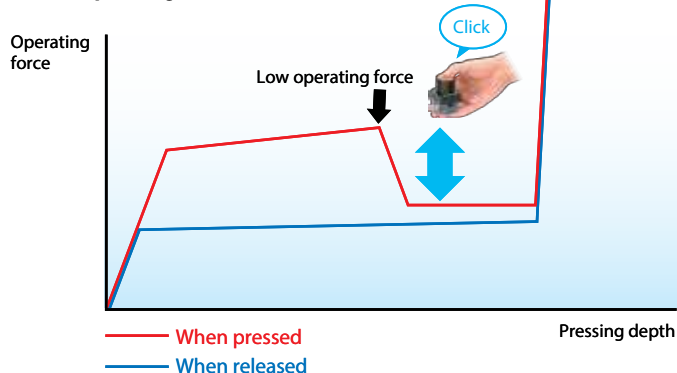
Trigger action operation drives the power generation module and generates stable electricity.



## IP65 Protection

\* Only for the main unit of pushbutton and optional antenna.

**Relationship between pressing depth and operating force**





## Highly reliable communications

**922.5MHz frequency band is less susceptible to interference than GHz frequencies**

### High propagation

Sub-GHz band (922.5 MHz)



Radio waves diffract around obstacles.

Quasi-microwave band (1 GHz to 3 GHz)



Radio waves are blocked by obstacles.

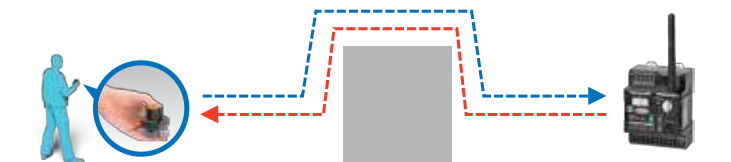
### Long-range transmission

**Transmission distance: approx. 100 m without obstacles**

\* Also without influence of noise

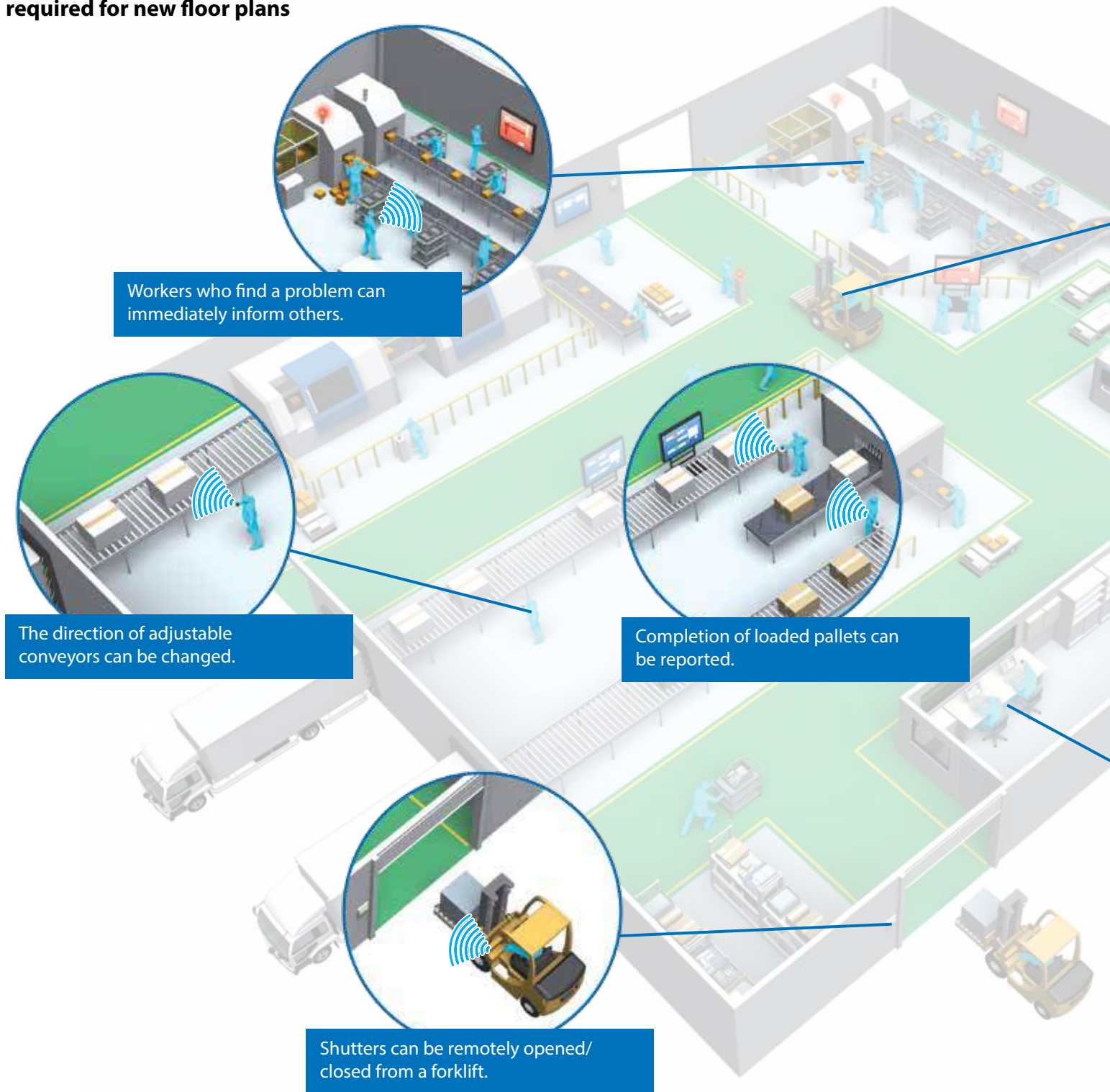


**Transmission distance: approx. 30 to 50 m even with obstacles**



# A wide range of applications are available with wireless communication

**Wireless communication eliminates issues caused by disconnection, time and expenses required for new floor plans**



Workers who find a problem can immediately inform others.

The direction of adjustable conveyors can be changed.

Completion of loaded pallets can be reported.

Shutters can be remotely opened/closed from a forklift.



A forklift can alert others in the area to allow a safe path.



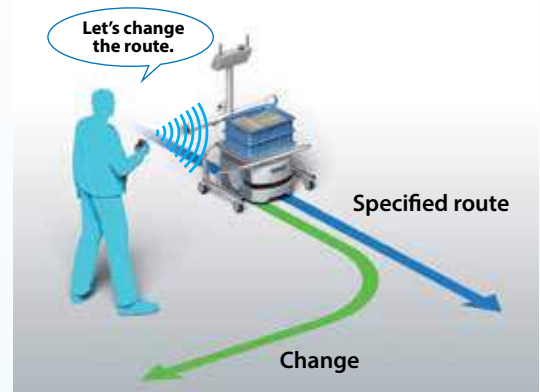
Floor plans can be changed without considering wiring.



Automated guided vehicles can be remotely activated/guided.

Unprecedented usage methods can create more value

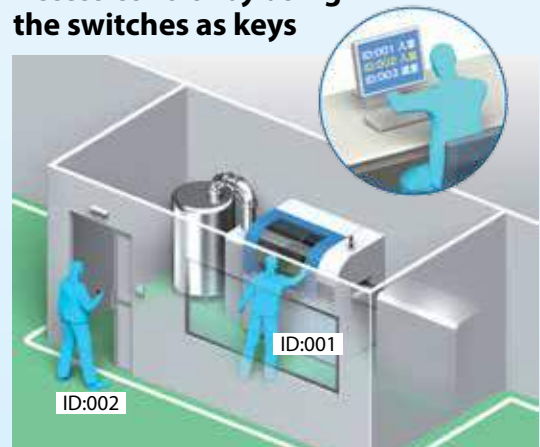
**Route change of an automatic conveying robot**



**Transmission of simple information, such as a failure count**












**Access control by using the switches as keys**



Note: Cannot be used for emergency stop.

## Main Specifications

### [Pushbutton]

Button type	Mushroom, Full guard					
Button color	Green 	Yellow 	White 	Blue 	Black 	Red 
Flange color	Yellow 	Black 	Red 			
Degree of protection	IP65					

### [Receiver]

Rated voltage	24 VDC
Allowable voltage range	21.6 to 26.4 VDC
Output circuit shared voltage	30 VDC max.
Maximum load current	50 mA per point
Output logic	One-shot (500 ms)
Number of connected pushbuttons	8 max.
Accessories	Extension antenna (cable length 2.5 m), Pushbutton strap

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