

# Battery-less Pendant Transmitter

Technical spec sheet



No Battery



433 MHz FSK RF



80 m Outdoor Range



Super Capacitor



NFC Tag



Eco-Friendly

## Highlights

- **No maintenance**

Self-powered operation: no batteries to replace or recharge. Always ready for use.

- **Kinetic energy harvesting**

Rebound-type kinetic switch converts the button press into electrical energy.

- **Energy buffer**

Integrated super capacitor stores harvested energy and supports multiple presses in a short time.

- **Reliable nurse-call signaling**

FSK transmission at 433 MHz with pilot signal and compact packet for robust decoding.

- **Eco-friendly design**

Reduces hazardous, disposable electronic waste and service visits.

- **No configuration required**

Ready to deploy. Does not require configuration or programming.

## Key Specifications

<b>RF band</b>	433 MHz ISM
<b>Modulation</b>	FSK
<b>Data rate</b>	4 kb/s
<b>Packet</b>	20-bit including unique ID, input status and pilot signal
<b>Operating temperature</b>	-20°C to +55°C
<b>Control distance</b>	80 m (outdoor), 30 m (indoor)
<b>Lifetime</b>	>800,000 actuations
<b>Power</b>	Self-powered (no battery) + super capacitor energy buffer
<b>Dimensions</b>	L21 mm x W51.6 mm x H18.5 mm
<b>Weight</b>	27 g
<b>NFC</b>	26-bit tag, 13.56 MHz



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## Self-Powered Operation

Kinetic energy harvesting • No batteries • Follow sequence below

Tip: For best performance, press firmly and avoid covering the pendant with metal objects that can reduce RF range.

### 1 Press to activate



- Rebound-type kinetic switch generates energy from a button press.
- No standby power - the device remains dormant until pressed.

### 2 Harvest micro-energy



- Mechanical energy is converted to an electrical pulse.
- The pulse powers the radio electronics for the transmission burst.

### 3 Store and buffer



- Super capacitor stores harvested energy.
- Enables multiple press actions in a short time window.

### 4 Transmit RF packet



- FSK transmission at 433 MHz for robust performance.
- 20-bit packet includes unique ID, input status and pilot signal.

### 5 Receiver triggers nurse call



- Receiver decodes the pilot + packet and reports the event to the Nurse Call System.
- No battery replacement cycles - maintenance is limited to normal cleaning and periodic functional tests.
- Verify coverage in your environment: typical 80 m outdoor / 30 m indoor (site dependent).