Battery-less Pull Cord Transmitter

Technical spec sheet

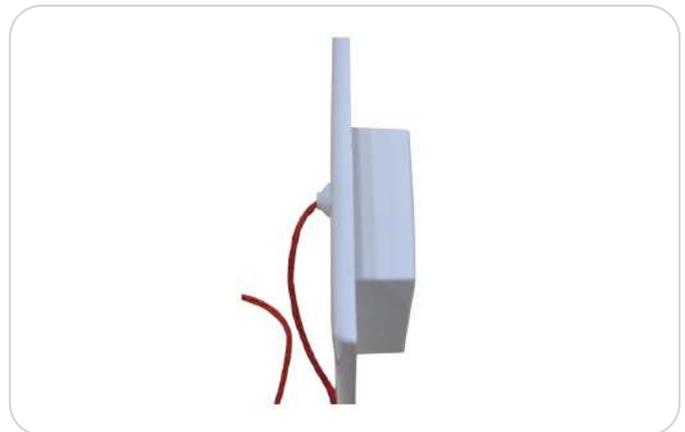| Self-powered	433 MHz FSK RF	No battery	Single-gang panel	800k+ cycles	Maintenance-free

Highlights

- **No maintenance operation**
  Self-powered kinetic energy switch eliminates battery replacement and charging.

- **Reliable alarm activation**
  Rebound-type mechanism generates energy on each pull and transmits instantly.

- **Eco-friendly design**
  Reduces hazardous disposable battery waste and service visits.

- **No configuration required**
  Pre-programmed unique identity - install, connect to receiver, and use.

- **Long mechanical lifetime**
  Rated for more than 800,000 activations (profile dependent).

Key Specifications

Power	Self-powered (no battery)
RF band	433 MHz ISM
Modulation	FSK
Data rate	4 kb/s
Packet	20-bit (unique ID + input status + pilot)
Control distance	30 m (indoor, typical)
Operating temp.	-20 C to +55 C
Lifetime	>800,000 activations
Form factor	Standard single-gang wall panel
Weight	127 g

Controlledcare • Battery-less Pull Cord Transmitter
Designed for nurse call system integration (UL 2560 evaluation pathway)

Specifications subject to improve

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Self-Powered Operation

Kinetic energy harvesting • No batteries • Follow steps below

Tip: Mount to a standard single-gang wall box. Pull the cord to confirm alarm delivery at the receiver or nurse call console.

1 Activate the pull cord
- Pull action triggers the rebound-type kinetic switch.

2 Energy harvesting module
- Harvested micro-energy powers the transmitter electronics.

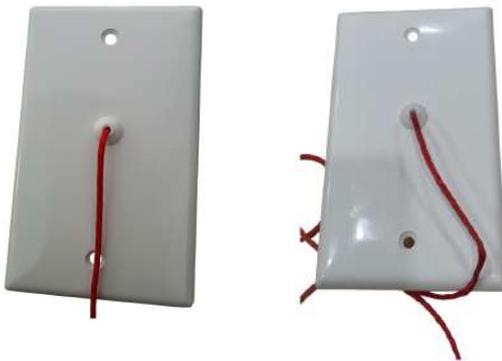**3 Super capacitor buffering**
- Super capacitor buffers energy for rapid repeat pulls.

4 RF alarm transmission
- Transmits 20-bit packet over 433 MHz FSK at 4 kb/s.

5 Install and test
- Mount to a standard single-gang wall box (North American standard).
- Route and secure the pull cord; ensure free travel with no sharp bends.
- Maintenance-free operation: no batteries, no recharging, no periodic service.
- Pull the cord and confirm alarm reception by the system receiver/decoder.