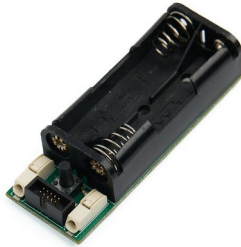




Digiseal Wire Seal

Reusable cryptographic wire seal with instant tamper detection



The Digiseal Wire Seal replaces traditional one-use seals with a smart, reusable, cryptographically secured device. When the wire is cut or the casing is opened, an alarm event is recorded immediately in the device and synced to the cloud when connectivity is available. Authorised openings are logged against the specific digital key used — so there are no false alarms and a complete audit trail of every access. Battery life exceeds two years on two AAA cells.

Technical Specifications

PCB Dimensions	67.5 × 25.0 mm
Casing Dimensions	Customisable per customer; standard prototype ~35 × 60 × 20 mm
Power Supply	2 × AAA batteries (not included); battery life 2+ years
Connectivity	Bluetooth 5.1 / ANT / 2.4 GHz
BLE Range	6–12 m indoors; up to 50 m outdoors
Wire Length	5–500 cm; replaceable on-site without factory return
Tamper Detection	Wire-cut and cover-open events logged instantly
Encryption	ECC secp256r1 hardware-bound keys; AES-256 CBC communication
IP Rating	Determined by customer-selected enclosure; IP65, IP67, IP68 and explosion-proof options available
Operating Temp.	–40 °C to +85 °C
Electrical Consumption	Sleep ~5–10 µA; BLE advertising avg ~20–50 µA; BLE active ~3–4 mA; 2+ years on 2× AAA
Extensions	NB-IoT Gateway for cloud connectivity and real-time alarms
Certifications	Available on request; additional certifications at customer cost



Key Features

- Reusable — only the wire needs replacement after a wire-cut
- Authorised-key-aware alarm logic — no false alarms on valid openings
- Complete offline operation — BLE only, no SIM or internet required
- NFC tag support for fast field identification of large seal deployments
- Time-limited and scheduled key sharing via QR code or cloud
- Extend to cloud monitoring with optional NB-IoT Gateway
- Casing, wire type and length fully customisable

Applications

- Gas and electricity metering equipment
- Money transport cases and cash-in-transit
- Document boxes and evidence containers
- Recycling and waste management infrastructure
- Self-storage unit sealing and logistics containers