PERIMETER · ELECTRONIC RAZOR-WIRE CONCERTINA

# D-Concertina

L3 Layer · The perimeter line

Standard razor-wire concertina turned into a detection line: strain-gauge sensors report the exact zone of a cut or climb.



## KEY BENEFITS

01 **Barrier and sensor in one**
The coil still stops and delays the intruder; the sensors add an exact alarm zone.

02 **Any coil, new or existing**
Retrofit two sensing wires inside the concertina you have, or install a complete new line.

03 **Built for exposed sites**
Anti-corrosion treatment to MIL T 152, –25 °C to +72 °C, 10-year sensor warranty.

## HOW IT WORKS

01 **Coil on sensor posts**
Razor-wire concertina of any diameter mounts on arms or posts with strain-gauge sensors.

02 **Sensing wires**
Two wires run inside the coil and connect to the sensors.

03 **Detection**
A cut, climb or push of 15 kg and above changes the tension and raises the alarm.

## SPECIFICATIONS

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| **Concertina** | Standard razor-wire concertina of any diameter (open design) |
| **Configurations** | Retrofit: 2 sensing wires inside an existing coil · New: coil and system supplied |
| **Concertina sensor** | 120 × 37 × 42 mm |
| **Fence length** | No fixed limit (practical limitation) |
| **Fence height** | According to customer specification |
| **Length of system zone** | Not exceeding 100 m |
| **Unit dimensions** | 250 × 55 × 25 mm, 200 g |
| **Processing unit** | Up to 32 sensors |
| **Deflection force** | 15 kg and above activates the alarm |
| **Dry contact** | N.O. & N.C. 1 A @ 48 VDC |
| **Power supply** | 12 mA @ 48 VDC |
| **Communication output** | RS232 |
| **Operating temperature** | +72 °C to –25 °C |
| **Storage temperature** | +80 °C to –32 °C |
| **Humidity** | 95 % |
| **Corrosion** | All parts treated to MIL T 152 |

04 **Control centre**
The alarm and its exact zone reach a local, remote or central control centre.

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|---|---|
| **Lightning & electronic transients** | MIL STD 9094 |
| **EMI & RFI** | MIL STD 461, 462 |
| **False alarm rate (catalogue)** | Less than 1 per km per 3 months |
| **MTBF sensor** | 4.7 × 10⁸ hours |
| **MTTR** | 30 minutes |
| **Warranty** | 10 years on the sensors |

## TENDER SPECIFICATION TEXT

### 1. GENERAL

The system shall be D-Concertina by D-FENCE Electronic Fencing and Security Systems Ltd. (ISO 9001:2015 certified quality management), or an approved equivalent that meets every requirement in this section.

### 2. FUNCTION

Standard razor-wire concertina turned into a detection line: strain-gauge sensors report the exact zone of a cut or climb.

### 3. THE SYSTEM SHALL PROVIDE

- **Barrier and detection:** A coil that is very hard to penetrate, with the exact alarm point shown in the control centre.
- **Retrofit option:** Sensors on sensor posts, with two wires stretched inside the existing concertina.
- **New-fence option:** Supply and installation of both the open-design concertina and the electronic system.
- **Flexible management:** Locally, remotely, from a central control centre or a monitoring centre.
- **Walls and fences:** On wall crowns, at the foot of a wall, or on chain-link and welded-mesh fences.

### 4. TECHNICAL REQUIREMENTS

- **Concertina:** Standard razor-wire concertina of any diameter (open design)
- **Configurations:** Retrofit: 2 sensing wires inside an existing coil · New: coil and system supplied
- **Concertina sensor:** 120 × 37 × 42 mm
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- **Humidity:** 95 %
- **Corrosion:** All parts treated to MIL T 152
- **Lightning & electronic transients:** MIL STD 9094
- **EMI & RFI:** MIL STD 461, 462
- **False alarm rate (catalogue):** Less than 1 per km per 3 months
- **MTBF sensor:** 4.7 × 10⁸ hours
- **MTTR:** 30 minutes
- **Warranty:** 10 years on the sensors

### 5. DETECTION SEQUENCE

1. **Coil on sensor posts:** Razor-wire concertina of any diameter mounts on arms or posts with strain-gauge sensors.

2. **Sensing wires:** Two wires run inside the coil and connect to the sensors.
3. **Detection:** A cut, climb or push of 15 kg and above changes the tension and raises the alarm.
4. **Control centre:** The alarm and its exact zone reach a local, remote or central control centre.

## 6. SUBMITTALS

Before installation, the contractor shall submit the manufacturer's datasheet, the installation instructions and the zone layout for approval.