



Identification



Mapping



Traceability

Underground networks

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FIELD DATA  
SOLUTIONS  
FOR UNDERGROUND  
UTILITIES

## ➤ SOLUTIONS SUITED TO ALL MARKETS



Gas



Drinking water



Telecom



Sewage and industry



Energy



Geothermal energy



Rain water



Urban heating

Solutions for owners and underground network operators to provide a detailed description of their infrastructures.



## IDENTIFICATION

ELIOT markers incorporate a passive NFC compatible RFID tag that complies with international standard ISO 15693. Enclosed in a rigid sealed and resilient polymer casing, it can be fitted to all types of pipes (cast iron, PE, steel, concrete, PVC).

With a service life of over 60 years, it is efficient regardless of soil type, magnetic and electric environment.

### T150

The T150, flagship of the ELIOT range, is compatible with all pipe diameters.



- **Pipe type**  
Cast iron, PE, steel, cement, PVC of all sizes
- **Dimensions:** 285 x 95 x 35 mm
- **Maximum depth:** 1.5 m
- **Number of tag writes:** 100,000
- **Weight:** 250 g
- **Packaging:** Per box of 10 units
- **Attached by :** adhesive or securing straps.
- **Sealing:** IP68

### T250

T250 markers are compatible with any type of pipe and soil and can be installed up to depths of 2.50m. It is attached to the top of the pipe, on the 1st backfill level.



- **Pipe type** Cast iron, PE, steel, cement, PVC
- **pipe ND:**  
125-225
- **Dimensions:** 330 x 330 x 32 mm
- **Number of tag writes:** 100,000
- **Maximum depth:** 2.5 m
- **Weight:** 660 gr
- **Packaging:**  
Per box of 10 units
- **Attachment type:** with adhesive tape and/or wire clamps, or on backfill.
- **Sealing:** IP68

### T150 J

The T150J marker, the ultimate multi-purpose product, can be installed on both pipes or tapping tees with its patented clamp system.



- **Pipe type:** cast iron, PE, steel, cement, PVC
- **pipe ND:**  
25-160
- **Dimensions:** 118 x 108 x 34 mm
- **Clamp:** 70 x 94 mm
- **Tag + clamp:** 120 mm in height
- **Number of tag writes:** 100,000
- **Maximum depth:** 1.5 m
- **Weight:** 242 gr
- **Packaging:**  
Per box of 10 units
- **Attachment type:** With adhesive tape and/or Eliot clamp
- **Sealing:** IP68

### ELIOT warning mesh

Developed by Interma, the warning mesh is a multi-purpose product that combines mesh marking, ELIOT identification and geolocation functions.



- **Application type:** Drinking water supply, gas, electricity, telecom, sewage utilities
- **Integrated every** 3, 6, 9 or 12 m
- **Maximum depth:** 1.5 m
- **Number of tag writes:** 100,000
- **Installation:** buried 20-30cm above the Utility not more than 1.5m below ground level
- **Available width:** 20 and 30 cm
- **Sealing:** IP68

## ELIOT application

This tool is essential for use with ELIOT markers, the ELIOT mobile application uses the PDA's NFC (Near Field Communication) technology for:

- Marker encoding
- Marker data reading
- Bar code or QR code reading to integrate associated equipment details into the marker
- Taking photos of the facility

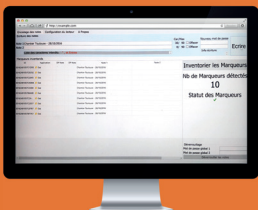


The ELIOT mobile application is integrated to all ELIOT rugged smartphones.

## N-CODE encoding station

Enables simultaneous marker data transfer per box (10 markers programmed concurrently with installation date and location, marker installation company, site location, etc.).

N-Code encoding station provides flexibility for encoding large quantities of markers.



## MAPPING

### ELIOT detector

Provides accurate identification, programming and georeferencing of all underground utilities fitted with ELIOT RFID markers. Simple to use and paired via Bluetooth with differential GPS system.



- Simultaneous identification of all types of networks fitted out with RFID markers
- Instantaneous location along 3 X, Y, Z axes with accuracy of +/- 10 cm (pursuant to standard NF S70 003 for class A as-built drawings)
- Enters and reads data in RFID markers
- Embedded database with a storage capacity of up to 3000 points
- Data transfer of point readings by USB key or Bluetooth

### Multiple Devices for Online Viewing

ELIOT offers an on-line viewing interface of data saved and stored in ELIOT markers. This web interface can be applied to several backgrounds and provides permanent access to all the data of your underground network.

- Data feedback from ELIOT markers in the Cloud
- Secure data storage
- Secure and real-time access via a web interface: mobile and desktop version
- User-friendly interface
- Progressive network Map for work in process
- Marker GPS coordinates
- Viewing of the facility's snapshots prior to backfilling
- Access to google street view (360° view of the surface environment)
- Project site works editions for monitoring evaluation and invoicing



## TRACEABILITY

Code traçabilité 40 digits  
ISO 12176-4

Code de traçabilité N°1

Composant: Tube en barre droite  
Diamètre: 88,2 mm  
Série: 15  
Fabricant: S148-LP  
N° Lot: 80209073  
Code matériel: 020  
État matériel: Matériau vierge  
Dépoussiérage: F100  
N° Lot Matière: 40220895  
MFB: 15 + 1078 + 20  
Quantité: 6  
Inventaire: 06

ENTRÉE au VCEliot

ELIOT provides flexible network data protection and recovery solutions.

- Bar code and QR code reading via the ELIOT application: 3 dedicated spaces per marker
- Data transfer (geolocation, specifications, photos, associated product details) on ELIOT servers
- Secure and sustainable data storage
- Simplified recovery of your information and GIS system data

## ➤ TECHNICAL SPECIFICATIONS

### Markers

Transponder type	Passive
Communication protocol	ISO 15693 – NFC compatible
Read/Write	100,000 cycles
Degree of protection	IP68
Max. burial depth	2m50
Operating temperature	-20°C +80°C
Service life	Over 60 years

### Detectors

Detector size (without antenna)	82 x 31 x 13 cm
Detector weight	3.2 Kg
Battery life	
100%	2h
70%	3h
50%	4h
30%	4h30
10%	6h
Detector colour	Orange, RAL 2011 (Pantone 158C)
Detector degree of protection	IP54
Antenna degree of protection	IP67
Operating temperature	-5°C +35°C
Storage temperature	-25°C +60°C

## ➤ LIST OF DISTRIBUTORS

### France

- **PENET**
- **POINT P**
- **PUM**
- **CHRISTAUD**
- **MTP**
- **DMTP**
- **SAMSE**
- **France DETECTION SERVICE**

### Belgium

**EMMER SERVICES**  
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**CGH-TCI**  
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