

TRANSIENT ELECTROMAGNETIC INSTRUMENT (GEOTECH)

Urban Engineering Investigation

The GT-30 is mainly applied in urban engineering investigation, ultra-shallow investigation of urban road voids, pipelines, etc., and has strong anti-interference ability. As well as dam seepage, ant holes and cavities, etc.

Main Applications:

1. Engineering Inspection

- (1) Detect the geological diseases such as caverns, fractures, karst and weak layers in the subgrade of highways, airport runways, urban roads and railway and highway tunnels.
- (2) Detect leakage, voids, ants and other safety hazards on the foundation and body of DAMS such as reservoirs, barrage DAMS and tailings DAMS.

2. Engineering Investigation

- (1) Detecting shallow karst and evaluating karst scale, morphology and water content.
- (2) Determine the scale, occurrence and water content of the shallow fracture zone.
- (3) The three-dimensional characteristics of shallow goaf, such as distribution range, burial depth and occurrence state, are detected.
- (4) Permafrost exploration, permafrost thickness, buried depth and other occurrence characteristics.

3. Metal Prospecting

- (1) Quickly evaluate the prospect of mineral rights of metal ore, and explore the scope and occurrence of metal ore bodies.

4. Other

- (1) In archaeological research, the distribution range and burial depth of ancient tombs are detected.
- (2) The exploration of metal artifacts in ancient tombs in archaeological research.

Receiver Technical Specifications :

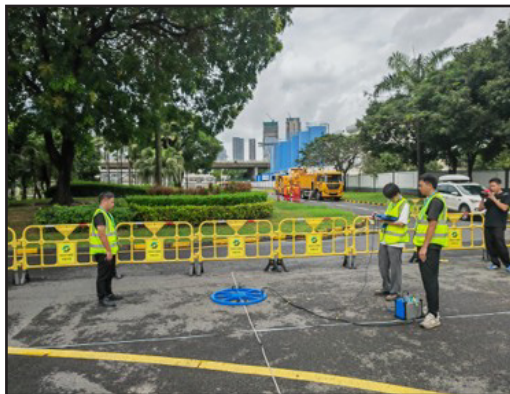
Alternate Model Number	GT-30
A/D Converter	32Bit
Dynamic Range	160dB
Sampling Rate	1μs, 4μs, 16μs
Number of Acquisition Channels	2
Background Noise	1μV
Voltage Measurement Range	-200V-200V
Voltage Measurement Resolution	≤300nV
Measurement Accuracy	0.1%
Input Gain Range	1/80-8000
Minimum Sampling Interval	4μs
Noise Suppression	>100dB
Passband	0-500kHz
Superposition Times	1-65535 Times
Computer System	PC104 Industrial Control Computer, 8.4 "Color LCD Screen (Full Windows Operation Interface)
Data Storage	2GB (Expandable)
Storage Capacity	≥30000
Data transmission	USB2.0
Power Supply	The Built-in Battery Can Ensure Operation For More Than 8 Hours And Can Be Externally Connected To 9-18VDC
Size	403mm × 330mm × 178mm (Length × Width × Height)
Weight	10kg
Working Temperature	-10°C-50°C

Transmitter Technical Specifications :

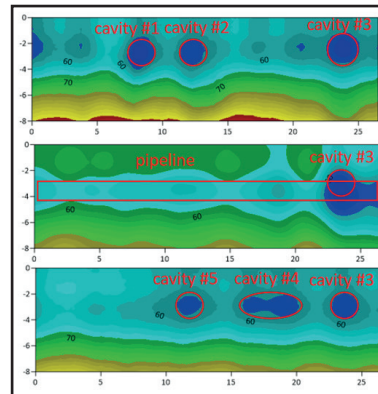
Transmission voltage (V)	36-57
Sending current intensity (A)	25, 50, 100, 200
Current pulse width (ms)	10, 20, 40
Transmitting waveform	A Bipolar Square Wave With a Duty Cycle of 1:1
Maximum transmission power (KW)	12
Synchronization mode	Cable Synchronization
Turn-off time	It Varies With The Magnitude of The Power Supply Current And The Sending Coil, Ranging From 0.5 to 300µs
Size	312mm × 274mm × 136mm (Length × Width × Height)
Weight	2kg
Working temperature	-10°C-50°C

Coil Model :

Specification	Detection Depth
Coplanar equivalent antimagnetic flux	150m



GT-30 Pipeline Detection Construction Site Image



Pipe Burial Depth : 3~5m