

POISK 610

UNIVERSAL CABLE LOCATOR

POISK 610 Universal Cable Locator is designed to detect underground communications with conductive sheaths or metal cores. It operates at fixed frequencies with transmitters MK510, MK310, E-100 and supports user-defined frequencies from 250 Hz to 38 kHz using third-party transmitters. It enables position, direction, depth, and signal current detection, localization of breaks, short circuits, intersections, branching points, and sheath damage (with optional DE-02 sensor), and indoor wiring search (DI-01 sensor). It also supports cable core selection (DE-01 sensor), bundle identification (K-100 pliers), and tracing with coordinate memory (GLONASS/GPS). In passive mode, it detects industrial frequency currents (50 Hz), electrochemical protection signals (100 Hz, 300 Hz), and wideband signals (50 Hz–38 kHz) with spectrum display.



KeyFeatures

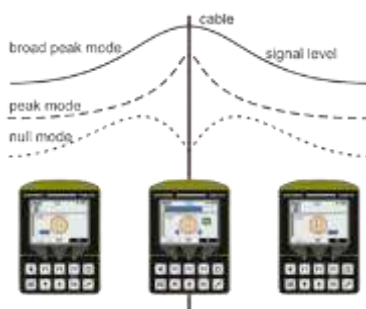
- Multi-mode detection: Locate underground cables, breaks, and short circuits.
- Accurate positioning: Determines position, direction, depth, and signal current.
- Passive & Active Modes: Works with and without a transmitter.
- Comprehensive connectivity: Compatible with MK510, MK310, E-100, and third-party transmitters (250 Hz–38 kHz).
- Advanced sensors: DI-01 for room wiring, DE-01 for cable cores, DE-02 for sheath damage, K-100 for cable selection.
- GLONASS/GPS: Saves coordinates for tracking.



Technical Specifications

- Operating Frequencies: 250 Hz – 38 kHz (active mode), 50 Hz – 38 kHz (passive mode).
- Depth Measurement: Up to 10 meters.
- Power Supply: Built-in LiFePo batteries, 12 hours operation.
- Device Protection: IP54 (Dust & Water-resistant).
- Weight: 1.9 kg.

Antenna Modes



- Broad Peak Mode: Detects cable position using maximum signal level, ideal for deep or complex environments but less precise. Best for initial routing.
- Peak Mode: Provides the most accurate cable location with minimal field distortion. Used for precise positioning.
- Null Mode: Identifies the cable by minimum signal strength when the receiver is vertical. Best for final verification but sensitive to field distortion.

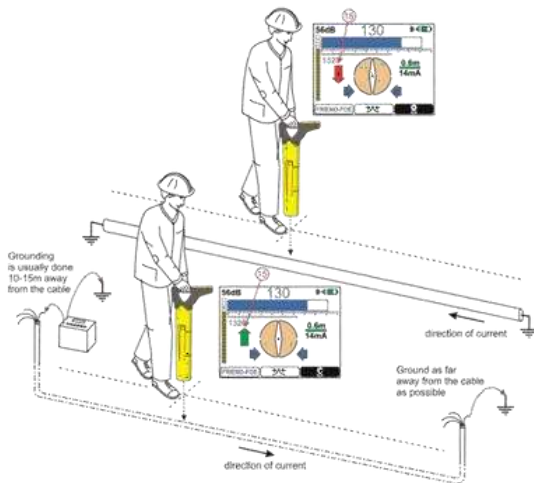
Modes of Operation & Detection Capabilities

The POISK 610 Universal Cable Locator operates in both Active and Passive modes, allowing for precise detection of underground utilities, cable faults, and insulation damage.

Active Mode (With Transmitter)

In Active Mode, the POISK 610 works with transmitters (MK510, MK310, E-100) or third-party sources (250 Hz – 38 kHz) to send a signal along underground utilities. This enables:

- ☐ Accurate Tracing – Pinpoints the exact location of cables, pipes, and conduits.
- ☐ Intersection & Branching Point Detection – Identifies where multiple utilities cross.
- ☐ Sheath Damage Localization – Detects faults and weak points in cable insulation.
- ☐ Adjustable Settings – Operators can fine-tune frequency, power level, and signal strength for best performance.



2. Cable Selection (Using K-100 Induction Clamps) (Accurately selects a single cable from a bundle.)

Uses K-100 induction clamps to identify the correct cable among multiple wires. Works by detecting signal intensity in the selected cable. Reduces false readings caused by adjacent power lines.



Passive Mode (Without Transmitter)

In Passive Mode, POISK 610 detects naturally occurring signals without needing an external transmitter. This allows users to:

- ☐ Identify industrial frequency currents (50 Hz) – Detects active power lines.
- ☐ Detect electrochemical protection signals (100 Hz, 300 Hz) – Used in gas and oil pipelines.
- ☐ Perform wideband detection (50 Hz – 38 kHz) – Captures multiple signals from various underground structures.

1. "Friend-Foe" Mode (Prevents tracing errors by distinguishing the correct cable from interference.)

Identifies the direction of the current in the correct cable.

Green Arrow (✓) → Signals flowing in the correct direction.

Red Arrow (+) → Return current in neighboring cables.

Helps avoid confusion when multiple cables are present.

☐ Illustration Idea: Show a receiver screen displaying arrows indicating correct vs. incorrect cables.

3. Insulation Damage Detection (Using DE-02 Sensor) (Pinpoints breaks and damage in cable sheaths.)

Detects insulation faults by analyzing signal loss and variations.

Works in dual-frequency non-contact mode. Helps prevent electrical hazards by detecting weak insulation points.



POISK 610 – Built for Accuracy, Designed for Professionals

Enhance Your Cable Detection with Smart Features

- ◆ **Dual-Mode Operation:** Works in both Active & Passive modes to trace underground utilities with precision.
- ◆ **Advanced Fault Detection:** Locates breaks, short circuits, sheath damage, and insulation faults.
- ◆ **Multiple Detection Modes:** Peak, Null, Broad Peak, and "Friend-Foe" for error-free identification.
- ◆ **Customizable Frequency Range:** Operates from 50 Hz – 38 kHz for diverse applications.
- ◆ **Durability & Battery Life:** IP54-rated, 12-hour battery operation for tough field conditions.

TRANSMITTER SPECIFICATIONS 510



Working frequencies range of the Signal current source (preset)	26 250 Hz $\pm$ 3Hz 6562,5 $\pm$ 2 Hz 2187,5 $\pm$ 1 Hz 273,5 $\pm$ 0,5 Hz
User definable frequencies range	250-35000 Hz
Power output (not less), watt at the resistance of loading 50-500 Ohm: In frequencies range 250 - 10 000 Hz In frequencies range 10 - 20 kHz In frequencies range 20 - 30 kHz	 10 $\pm$ 1 Hz 5 $\pm$ 0,5 Hz 3 $\pm$ 0,5 Hz
Range of the automatic coordination with resistance of loading	1 - 500 Ohm
Time of continuous work from the built in accumulator ³	3 h
Time of charging of the built in storage battery (no more)	6 h
Power supply: Alternating current (AC) From the built in accumulator	AC:220 B $\pm$ 20%,50 Hz, 12 V, 4,5 A/h
Dimensions	233x102x176 mm
Weight of the device (including the storage battery, without the bag)	3,2 kg
Operating Temperature	-20° C to +55° C
Ingress Protection Rating	IP51

Expand Functionality with Optional Accessories

- ◆ DI-01 Sensor – Detects hidden room wiring.
- ◆ DE-01 Sensor – Identifies cable cores in bundles.
- ◆ DE-02 Sensor – Pinpoints insulation damage.
- ◆ K-100 Clamp – Selects cables in a bundle.

Industry Applications

□ Telecommunications – Traces fiber optic & communication cables.

Construction & Excavation – Prevents accidental utility damage.

)Power & Energy – Detects underground power lines.

□ Oil & Gas Pipelines – Identifies buried pipelines & electrochemical signals.

† Municipal Services – Locates underground water, sewage, and utility lines.

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