Next Generation Multi-Sensor Water Leak Detection Technology

Automatically Locate and Measure Leaks in Pressurized & Gravity Water Mains.

Electro Scan’s Proprietary 4-in-1 Probe Includes:
- Low Voltage Conductivity
- High Definition CCTV
- Pressure Sensor
- Acoustic Hydrophone

Low Voltage Conductivity Leak Detection is Here!
The water industry’s first reliable & repeatable tool to locate & measure water leaks in pressurized water distribution & transmission mains.

Automatically finds leaking cracks, pinholes, bad joints, & defective service connections, and calculates their GPM.

Exclusively Available as a Service From Electro Scan Inc.
Pipe Specifications Especially Designed For Advanced Pipe Materials.

- **Operating Temperature Range**: -5°C to 45°C (23°F to 113°F).
- **Operating Pressure Range**: 0-90 PSI.
- **Location Accuracy**: 0.4 inches (1cm).
- **Conveyance Type**: Pressurized or gravity mains.
- **Insertion Tube Launch**: Fire Hydrants, Air Valves, Gate Valves, Flow Meters, Hot Taps, Pressure Fittings.
- **Required Flow**: 1 ft (305mm) per second (fps).
- **Transport**: Parachute.
- **Pipe Materials**: Asbestos Cement (AC), Cement-Mortar Lined and Coated Steel Pipe (CMLS), Cured In-Place Pipe (CIPP), Fiberglass Reinforced Pipe (FRP), High-Density Polyethylene Pipe (HDPE), Prestressed Concrete Cylinder Pipe (PCCP), Polyethylene Pipe (PE), Polyvinyl Chloride (PVC), and Reinforced Concrete Pipe (RCP).

Multi-Sensor Probe Find Leaks Not Detected by Acoustic, Electro Magnetic, Helium Tracers or CCTV.

- **Probe Length**: 6.25 inches (158.75mm).
- **Rigid Length**: 10 inches (254mm).
- **Cable**: Neutral buoyant.
- **Cable Type**: Fiber optic and copper.
- **Single Point Access Range**: 1,000ft (305m) range or 2,000ft (610m) range from since point of access.

Low Voltage Conductivity Next Generation Defect Location & Measurement (GPM or LPS).

- **Voltage**: 11 volts, AC, RMS.
- **Current (max)**: 40 mA.
- **Electrical Array**: Focused tri-electrode array.
- **Defect Flow Calculation**: Gallons per minute (gpm) or Liters per second (lps).
- **ASTM F2550-13**: Yes. Able to automatically locate all cracks, fissures, broken joints, leaking service connections, by measuring the change in electrical current able to pass through the wall of a pipe.

High Definition CCTV In-Pipe Navigation for Documenting Location of Low Voltage Defects.

- **Resolution**: 1920 x 1080, 30 fps, H.264 compressed stream.
- **Minimum Illumination**: 6 Lux at F2.8.
- **Output Compressed Video Formats**: Digital (AVI and .MP4); High-sensitivity complementary metal-oxide-semiconductor (CMOS) image sensor combined with an advanced image processor superior video and still image quality.
- **Focus**: Fixed position, autofocus, auto white balance, and image stabilization.
- **Focal Length**: 5.3mm.
- **Video Streams**: Two simultaneous video streams, including a high quality stream for archiving and a low quality stream for live viewing on mobile devices, each with independently configurable resolution & bit rate streaming that can be output to specific network addresses.
- **Text Overlay**: Built-in overlay generators allow up to 160 text characters to be positioned anywhere in the video frame.
- **Snapshot**: Capture and store hi-res jpg 4096 x 3096.
- **Lighting**: 8 LEDs, 4500 Lumens.

Pressure Sensor In-Pipe PSI to Help Calculate Defect Flow Rate at Specific Leak Locations.

- **Type**: Media compatible piezoresistive silicon pressure sensor.
- **Digital Output**: 24-bit ΔΣ ADC pressure sensor.
- **Temperature Monitoring**: Integrated for accurate pressure calculation compensation.

Acoustic Hydrophone Legacy Method to Assess Metallic Fittings & Benchmark to New Standards.

- **Frequency Range**: 1Hz to 170 kHz, omnidirectional.

“Electro Scan’s 4-in-1 probe represents a new breed of precision-based instrumentation designed specifically for the water industry. By coupling legacy acoustic technology with our next generation low voltage conductivity technology, water utilities and consulting engineers can immediately find & measure leaks that would not have been detected or correctly measured.”

Chuck Hansen, Chairman, Electro Scan Inc.
Former Founder & CEO, Hansen Information Technologies Inc.