



METERS



AMR/AMI



CONTROL

**integrated metering technologies**

A world leader in the field of water measurement solutions and services, the Arad Group specializes in designing, developing and manufacturing high quality meters, automatic meter reading (AMR) and advanced metering infrastructure (AMI) systems and advanced MDM systems and technologies.

Arad's patented solutions and products are specifically designed to meet the needs of utilities, waterworks companies and agriculture and are aimed at reducing water waste, improving overall water metering management capabilities and offering a better operational effectiveness.

Arad offers its clients a fully integrated source for complete water metering management and control systems. The company's solutions, which set new standards for accuracy, performance and reliability, offer the following advantages:

- Improving a utility's financial, operational and customer care performance
- Exact measurement
- Automated and remote water reading
- Real-time information availability
- Precise control and management

Arad has a proven reputation for quality and precision in measuring, reading, collecting, transmitting and managing data from water metering to interacting with most billing systems, offering its clients the world's most advanced water AMR and AMI solutions.

Established in 1941, the Arad Group is comprised of five specialized divisions operating on four different continents and serving utility and water companies in more than sixty countries.

**Divisions include:**



Publicly traded on the Tel Aviv Stock Exchange (TASE) since 2004, Arad leverages Israel's world-renowned technological skills, proven expertise in managing scarce water resources with Arad's vast experience and professionalism.

With annual revenues exceeding \$160 million, Arad has shown double-digit growth in each of last ten years from the sale of water measurement systems. Millions of its water meters are installed worldwide and the company has already sold more than three million smart meters, turning it into a world leader in advanced measuring solutions.

In order to maintain its leading position, the Arad Group is committed to investing a large proportion of its revenues in R&D each year, and to ensuring that its customers benefit from the most advanced solutions available in the market.



## Utilities

### Residential/ Bulk Meters



The ARAD Group offers a wide variety of high quality residential meters, with one of the broadest and most advanced selections of bulk meters available on the market today. Combined with its cutting edge DIALOG 3G AMR/AMI and control systems, the ARAD Group leads the market in providing professionally integrated metering solutions.

## Agriculture



The ARAD Group offers world leading products and solutions in the agricultural market for a wide range of irrigation applications, such as: water meters, hydrometers, fertilizer meters and automatic metering valves.



## Ultrasonic Meters

A revolutionary, precise and ultra reliable ultrasonic bulk water meter with no moving parts and exceptional levels of accuracy.

### Available Sizes

DN50-DN300 (2"-12") with cast iron body

DN40 and DN50 (1½"-2") with polymer body

DN50- DN200 (2"-8") with stainless steel body



- Excellent long-term stability and reliability
- Rugged mechanical design - Submersible (IP68)
- Bi-directional - including bi-directional outputs (digital and analog)
- Flexible data formats including flow directions, flow rates and volumes
- AMR and cellular networks ready with alerts and statistic features
- Multiline LCD
- Programmable Display (units and outputs resolution)
- EMI / RFI Protection

## CONCENTRIC

Super sensitive positive displacement meters for drinking water (WRAS, ACS and AWQC approved), developed for the UK market (Concentric) and other markets (In line).

- Very sensitive - starting flow 1 l/h
- Very high ratio R between Q3/Q1 = 315 (optional 400)
- MID 2004/22/EC (based on OIML R49 EN 14154 and ISO 4064:2005), WRAS
- Output options: Dialog 3G, Optical Encoder (OE), regular EV and ER



# sonata

Ultrasonic Residential Water Meter

The Sonata is an advanced and highly accurate ultrasonic water meter and data end-point for residential applications. With no moving parts, the Sonata's robust design ensures reliable and long lasting precision. Its technology enables the measurement of even the lowest flow rates, making it the best solution for addressing NRW. The Sonata is fully IoT compatible - ready to meet the challenges of tomorrow's smart water networks.

tuning into the future



## allegro™ & harmony™

### New Generation Advanced Metering Infrastructure (AMI) System

**Allegro** - Arad's new, innovative two-way Advanced Metering Infrastructure (AMI) system, which allows utilities and water corporations to remotely control water meters in real time.

**Harmony** - Arad's new Meter Data Management software (MDM).

Together, the two:

- Support two-way communication with a big number of end units spread across a wide geographic area
- Can support water meters, gas meters, electric meters, sensors etc.
- Improve utilities' operational efficiency, resulting in improved customer service, higher revenues, and enhanced management capability
- Transforms massive amount of data into meaningful information that can be put to work – to save water and labor costs, optimize compliance and security, and assure good customer service
- Can integrate in the same software different infrastructure of GIS layers (pipes, pumps, valves, etc)



## AMR/AMI & Meter Data Management

The DIALOG 3G is an advanced wireless AMR/AMI system combined with powerful control and management software tools. The system is based on cutting edge technologies developed from unique patents and vast experience in the field.

The DIALOG 3G is a recognized market leader whose system has been installed at utilities in hundreds of cities around the world. The system provides a diverse solution suited to the unique needs of Utilities, with our R&D teams continually working to provide new solutions for this fast developing market.

### [Wireless Meter Data Transmission]

Based on unique patents, the DIALOG 3G offers a wide array of wireless transmitting meters for a variety of residential and bulk applications.



Dialog3Gregister



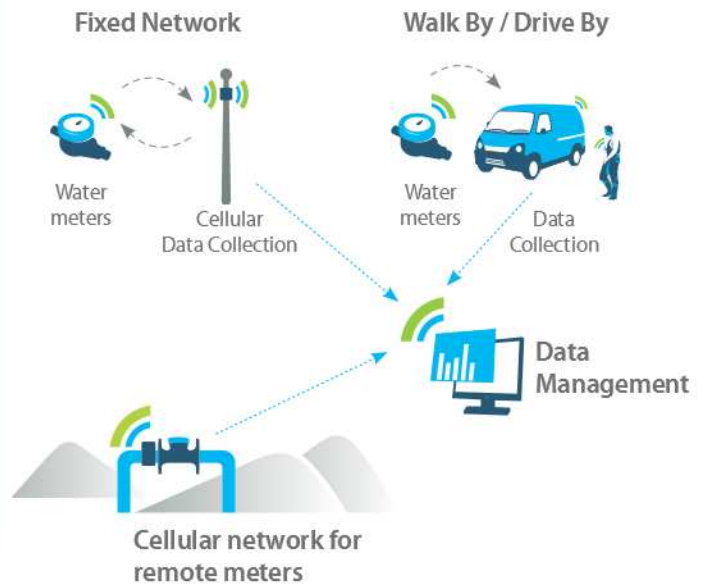
Universal Unit



Dialog3Gcellular

### [Data collection alignment]

DIALOG 3G offers diverse options for automated and semi automated data collection. The system's elements are designed to provide 100% reliable data collection, system performance and routine maintenance. The DIALOG 3G's modularity also provides straightforward solutions for a large range of applications.



### [Control & Management]

#### Dialog3GCITYMIND

Arad Group offers powerful Web-based meter data management solutions to help utilities and water companies supervise, manage and control their metering networks.

The CityMind solution, which is based on Arad's innovative remote automatic meter reading (AMR) system Dialog 3G, provides a varied collection of reports and statistical analyses. The system offers real-time location specific alerts on breaches, leaks and suspected theft and interfaces seamlessly with automated software systems.

Arad's solution is based on a special algorithm, written in cooperation with IBM water management professionals, to ensure the most accurate, reliable and comprehensive data mining.

#### CityMind's key benefits:

- The most advanced water meter reading management
- Real-time detection of alert situations
- Availability of numerous reports and statistics
- Operational effectiveness
- Accurate and reliable algorithms



## [Control & Management]

### Dialog360 CityMind - GIS Module

Arad's advanced geographic information system (GIS) module is specifically designed to improve overall water management capabilities. The innovative mapping software platform provides utilities and water companies with full geographical data, allowing them to capture, store, analyze and manage their entire water system in a visual and friendly manner.

Arad's GIS Module has the following advantages:

- Supports all data layer formats (ESRI, AutoDesk, ArcGIS etc.)
- Google based architecture
- Pressure management and valves control
- Detailed geographical based reports



## ARAD'S Personal Digital Solutions

### [Web Application]

Arad's web-based application allows consumers get extensive real time information about their water consumption. The application, which can be integrated into the utility's web site or a dedicated portal, sends alerts and predictions, allowing customers to better conserve water.

The system offers the following benefits:

- Full transparency
- Consumption forecast
- Leak and "away from home" alerts
- Smart messaging system with customer support
- SMS and Email notifications



### [App for smartphones]

The newly developed smartphone application allows consumers to track their water consumption wherever they are.

The app, which is available in iPhone and Android versions, offers the following advantages:

- Detailed consumption graphs
- Leak alerts
- Real time notifications
- Consumption forecast



# Beta Valve

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