

# BAYLAN

## WATER METERS

İZMİR/TURKEY

Prepaid  
Water Meter  
Systems



# Electronic Water Meters Technologies

## Electronic Meter Technologies

### Prepaid Meters

### AMR Meters

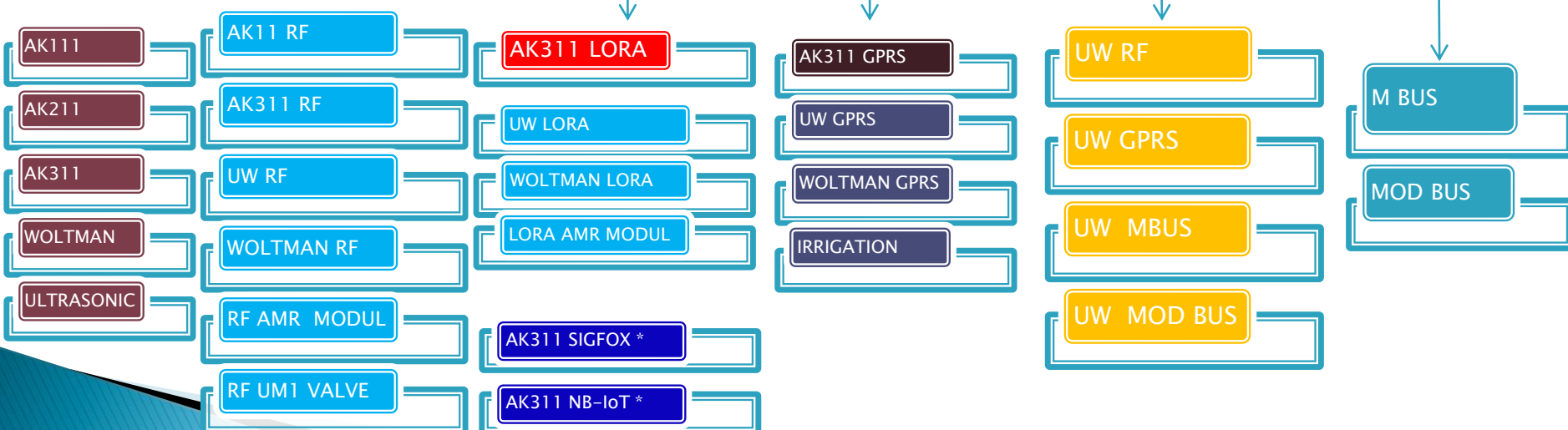
### Ultrasonic Meters

#### RF Solutions

#### IoT

#### GPRS Solutions

#### Wired Solutions

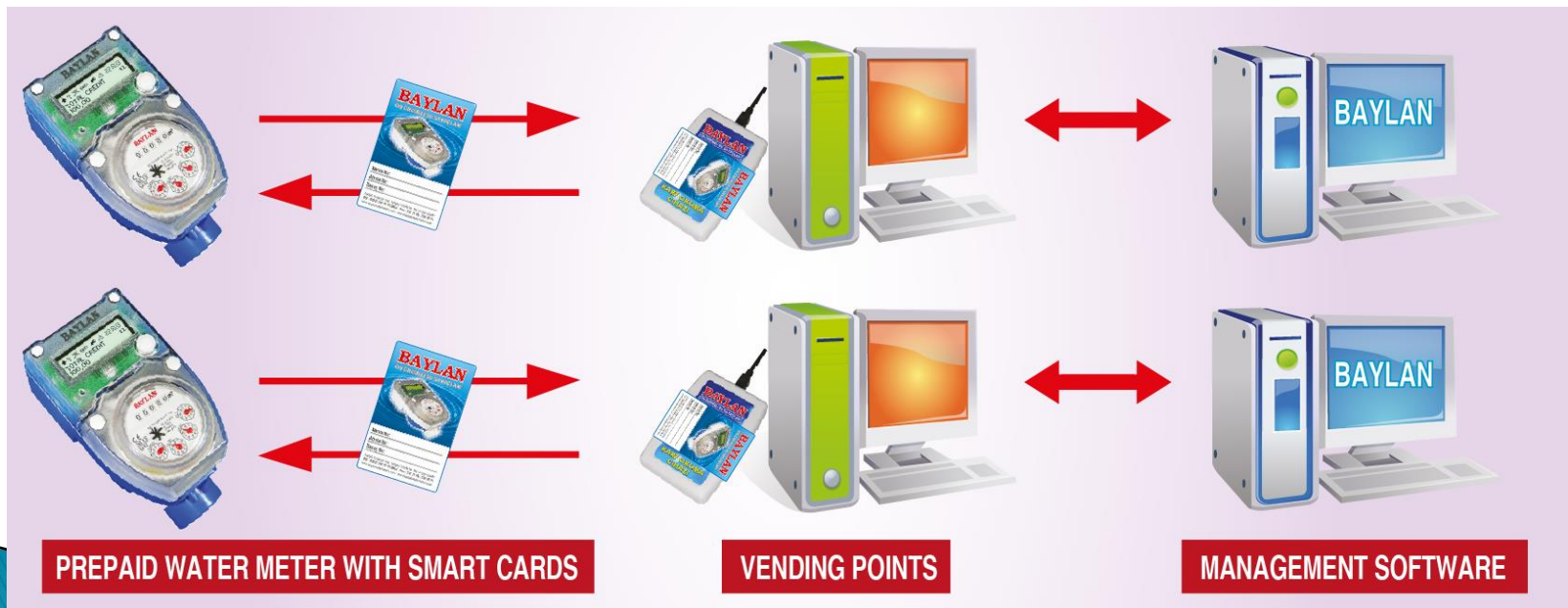


\*At design stage



# Prepaid Water Meter System

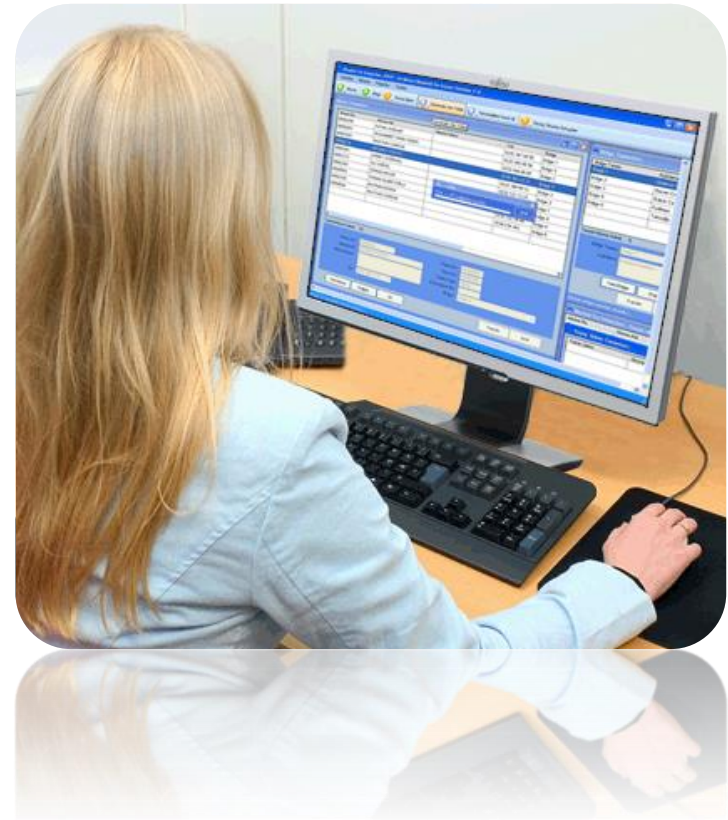
- 1- Credit Sales Control Center (Management Software)
- 2- Credit Loading Offices (Credit Sales Points)
- 3- Prepaid Water Meter



# Prepaid Water Meter System

## Credit Sales Control Center (Management Software)

- Utilities can control credit sales offices in this center. Consumer data (consumption, dept etc.) can easily watch by this software.



# Prepaid Water Meter System

## Credit Loading Offices (Credit Sales Points)

- Consumers load credits to their smart cards in this loading offices. System can identify the Consumer according to the number in the smart card. The smart card has own password so the system knows who are the Consumer and starts to billing process.



# Prepaid Water Meter System

- The system is based on the principle that the water consumptions are calculated, and consumers are charged accordingly in advance
- Consumers can load credits to their smart cards in the credit sales offices. Then Consumers load credits to their prepaid water meters via the smart cards.





# Prepaid Water Meter System

- The water meter cuts off the water by closing its valve when the credit ends, but when the consumer re-loads the spare credit in smart card to the water meter, the valve will re-open.
- Spare credits function allow consumers to use water until they re-load the smart card.



# Why Prepaid Water Meter System?

- Consumers can easily watch their water consumption and their remaining credit,
- Consumers can consume water as much as loaded credit,
- Utilities will have charged in advance opportunity,



# Why Prepaid Water Meter System?



- Consumers are able to load extra credits from credit loading points, so called (Kiosks) outside working hours.


# Login





Login to System - Service: Ready - Ver.Uygulama yüklenemedi


User name


Password


Themes  EN

 FR

 HU

 PT

 TR





# Consumer Operations

Baylan Su Sayaçları - Abone İstemci Yönetimi

SYSTEM CONSUMER OPERATIONS PREPAID CREDIT SALE OPERATIONS WORK ORDERS DEFINITIONS OPERATIONS REPORTING CONSUMER OPERATIONS

Close + Create New Consumer Edit Consumer Consumer Contract Define Card Card Contents Details Remand Card Delete Card Contents Debt Operations Activate Consumer Deactivate Consumer

Consumer No Meter No Name Last Name Status Search Search By Card Reading Quick Search

0 0 Enter first name Enter last name Active Consumers

Drag a column header and drop it here to group by that column

Consumer I	Name	Last Name	Meter No	Meter Type	Registration D	Fathers nar	Social Security	Mobile Phone	Card Serial	Tariff Name
0	ALEKSIC SINISA PIZZ	ALESSANDRO	8575	AK-311	01/01/0001 0:00					Kibris-Lefko-KONUT
0	RADOVIC	STEFAN	7853	AK-311	01/01/0001 0:00					Kibris-Lefko-KONUT
0	Perovic	Danka	10466	AK-311	01/01/0001 0:00					Kibris-Lefko-KONUT
0	KOVACEVIC	BOSILJKA	6724	AK-311	01/01/0001 0:00					Kibris-Lefko-KONUT
0	STANKOVIC	MILORAD	9446	AK-311	01/01/0001 0:00					Kibris-Lefko-KONUT
0	KULJACA	RAJKO	9323	AK-311	01/01/0001 0:00					Kibris-Lefko-KONUT
0	JOKSIC	SLOBODANKA	6677	AK-311	01/01/0001 0:00					Kibris-Lefko-KONUT
0	Kapisoda	Snezana	7799	AK-311	01/01/0001 0:00					Kibris-Lefko-KONUT
0	Petranovic	Blazo	6725	AK-311	01/01/0001 0:00					Kibris-Lefko-KONUT
0	POPOVIC	RADE	8519	AK-311	01/01/0001 0:00					Kibris-Lefko-KONUT
0	A&K doo	Podgorica	4088	AK-311	01/01/0001 0:00					Kibris-Lefko-KONUT
0	Davidovic	Darko	4973726	AK-311	01/01/0001 0:00					Kibris-Lefko-KONUT
0	BANICEVIC	DEJAN	7631	AK-311	01/01/0001 0:00					Kibris-Lefko-KONUT
0	VUKOJICIC	SAVO	228422	AK-311	01/01/0001 0:00					Kibris-Lefko-KONUT
0	JEREMIC	JOVAN	7362	AK-311	01/01/0001 0:00					Kibris-Lefko-KONUT
0	MRVALJEVIC	DRAGAN	16773	AK-311	01/01/0001 0:00					Kibris-Lefko-KONUT
0	RADJENOVIC	RISTO	9442	AK-311	01/01/0001 0:00					Kibris-Lefko-KONUT
0	KNEZEVIC	TAMARA	7495	AK-311	01/01/0001 0:00					Kibris-Lefko-KONUT
0	VUKSANOVIC	NENAD	11795	AK-311	01/01/0001 0:00					Kibris-Lefko-KONUT
0	MARKOVIC	DJORDJE	7539	AK-311	01/01/0001 0:00					Kibris-Lefko-KONUT
0	MICA PROMET DOO	BRUNO	10000	AK-311	01/01/0001 0:00					Kibris-Lefko-KONUT

3000

Consumer Operations

Page: 1 Total: 1

Number of records to show : 1820

# Collection List Report

Close

Select Report

- Consumer List
- Calculation List
- Collection List
- Last Credit Load Date List
- Cancel Collection List
- Tariff List

Date Info

All  
 Today  
 specific Date  15  
 Date Range  
 Start Date  15  
 End Date  15

Consumer Information

All  Selection  
 Consumer No   
 Meter No

User

All  Selection  
 User

Prepare Report

Export to Excel

Excel Reporting

CreateDate	Receipt No	Consumer No	m3	Water Price	VAT	Maintenance	Cleaning
10/27/2015 8:08:10 AM	90815	1422	23.81	47.62	2.38	0.00	0.00
10/27/2015 8:09:19 AM	90816	4152	16.67	33.33	1.67	0.00	0.00
10/27/2015 8:17:28 AM	90817	2861	17.47	34.93	1.9	3.00	6.00
10/27/2015 8:19:23 AM	90818	3420	17.47	34.93	1.9	3.00	6.00
10/27/2015 8:22:19 AM	90819	2112	25.19	50.39	5.64	6.00	12.00
10/27/2015 8:27:06 AM	90820	3467	2.40	4.80	0.69	9.00	18.00
10/27/2015 8:40:53 AM	90821	1228	12.60	25.19	2.82	3.00	6.00
10/27/2015 8:46:05 AM	90822	1078	184.13	368.27	18.56	3.00	6.00
10/27/2015 9:00:27 AM	90823	4461	15.00	30.00	3.48	6.00	12.00
10/27/2015 9:17:23 AM	90824	4062	10.00	20.00	1.15	3.00	6.00
10/27/2015 9:32:43 AM	90825	1254	20.65	41.30	2.36	6.00	12.00
10/27/2015 9:39:19 AM	90826	192	15.89	31.77	1.89	6.00	12.00
10/27/2015 9:43:46 AM	90827	1935	10.19	20.39	2.31	3.00	6.00
10/27/2015 9:47:17 AM	90828	4513	15.09	30.17	1.66	3.00	6.00
10/27/2015 9:52:16 AM	90829	1750	15.90	31.81	2.34	15.00	0.00
10/27/2015 9:58:24 AM	90830	3650	10.89	21.78	2.91	12.00	24.00
10/27/2015 10:02:22 AM	90831	5178	15.00	30.00	3.48	6.00	12.00
10/27/2015 10:09:52 AM	90832	5356	12.60	25.19	2.82	3.00	6.00
10/27/2015 10:23:14 AM	90833	2814	26.99	53.98	2.85	3.00	6.00
10/27/2015 10:25:49 AM	90834	1043	23.81	47.62	2.38	0.00	0.00
10/27/2015 10:38:15 AM	90835	3239	23.81	47.62	2.38	0.00	0.00
10/27/2015 10:43:36 AM	90836	5072	23.81	47.62	2.38	0.00	0.00
10/27/2015 10:45:47 AM	90837	5045	234.61	469.22	23.61	3.00	0.00
10/27/2015 10:54:52 AM	90838	3138	29.77	59.53	6.46	3.00	6.00
		Consumer NoTotal : 138345	m3Total : 1276.72	Water PriceTotal : 2553.37		MaintenanceTotal : 273.00	CleaningTotal : 480.00

# Consumer List Report

-Select Report-

Consumer List

Calculation List

Collection List

Last Credit Load Date List

Cancel Collection List

Tariff List

-Date Info-

All

Today

specific Date

Select a date 15

Date Range

Start Date

Select a date 15

End Date

Select a date 15

-Consumer Information-

All

Selection

Consumer No 0

Meter No 0

-User-

All

Selection

User

Prepare Report

Export to Excel

Excel Reporting

Consumer No	Social Security Number	Name	Last Name	Fathers name	Registration Date
1283	0	MUAMMER	ERSOY		21/01/2011
5377	0	MUAMMER	SIRDAŞ		30/03/2015
5339	0	MUAZZEZ	SOYER		05/03/2015
729	0	MÜCAHİT	KAVANI		11/06/2010
912	0	MÜGE	ÇİTİM		21/10/2010
5136	0	MÜGE	ÖZBEN		30/12/2014
5167	0	MÜGE	HAMOĞLU		08/01/2015
5784		MUHAMMAD TAHİR	PASHA		10/09/2015
5792	174704	MUHAMMET	ERCAN		30/09/2015
4311	0	MUHAMMET	EMİRHAN		14/03/2014
554	0	MUHARREM	MUHARREMOĞLU		09/03/2010
2966	0	MUHARREM	GÜMÜŞ		14/09/2012
3837	0	MUHARREM	PEKTAŞ		22/08/2013
4111	0	MUHSİN	EŞKUT		05/12/2013
3327	0	MUHTEREM	ÖZDEMİR		08/02/2013
3295	0	MÜJDEM	AYTAÇ ALTAY		30/01/2013
37	0	MÜJGAN	IRKAD		20/11/2008
38	0	MÜJGAN	IRKAD		20/11/2008
39	0	MÜJGAN	IRKAD		20/11/2008
40	0	MÜJGAN	IRKAD		20/11/2008
41	0	MÜJGAN	IRKAD		20/11/2008
42	0	MÜJGAN	IRKAD		20/11/2008
43	0	MÜJGAN	IRKAD		20/11/2008
4417	0	MÜJGAN	AHMETOĞLU		24/04/2014
Consumer NoTotal : 16927287					



# Last Credit Load Date List

Close

- Select Report
- Consumer List
  - Calculation List
  - Collection List
  - Last Credit Load Date List**
  - Cancel Collection List
  - Tariff List

- Date Info

All

Today

specific Date

Date Range

Start Date

End Date

- Consumer Information

All  Selection

Consumer No

Meter No

- User

All  Selection

User

Prepare Report

Export to Excel

Excel Reporting

Last Credit Load Date	Consumer No	Social Security Number	Name	Last Name	Fathers name	Registrati
10/21/2015 11:37:11 AM	4484	0	SEVEM	SEVEM		16/05/2014
10/21/2015 11:42:39 AM	3646	0	VEDAT	ÖZBALKAN		03/06/2013
10/21/2015 11:54:38 AM	4778	0	DERVİŞ	ALİ ÇAKARTAŞ		03/09/2014
10/21/2015 12:01:26 PM	3880	0	ALEV	SAKALLI		03/09/2013
10/21/2015 12:04:24 PM	1132	0	***MEYAŞ	LTD		22/12/2010
10/21/2015 12:16:58 PM	3486	0	SEMİR	AKARPINAR		01/04/2013
10/21/2015 12:27:53 PM	684	0	TÖREN	EMİNAĞA		31/05/2010
10/21/2015 12:33:13 PM	2643	0	ÇETİN	KÜRŞAT		16/05/2012
10/21/2015 12:38:32 PM	1199	0	***RANA	İNCI TEYFİK		03/01/2011
10/21/2015 12:39:29 PM	3320	0	ENVER	TAŞER		05/02/2013
10/21/2015 12:41:00 PM	4123	0	ERSAN	ERVANDOR		10/12/2013
10/21/2015 12:45:53 PM	4289	0	REŞAT	ÖZBERKMAN		03/03/2014
10/21/2015 12:47:30 PM	2285	0	DENİZ	GILANLI		24/01/2012
10/21/2015 1:00:00 PM	300	0	IRAZ	EVLİYA		31/08/2009
10/21/2015 1:03:20 PM	4737	0	ÖCAL	MEHMET ÇAKARTAŞ		25/08/2014
10/21/2015 1:09:35 PM	2416	0	MUSTAFA	ÇELIKDEN		23/02/2012
10/21/2015 1:16:07 PM	1026	0	AYLA	KARAMUSTAFAOĞLU		29/11/2010
10/21/2015 1:21:02 PM	5238	0	FİLİZ	TEKİNSOY		29/01/2015
10/21/2015 1:25:40 PM	4137	0	MERYEM	AYFER ALTAN		18/12/2013
10/21/2015 1:32:39 PM	2975	0	SABRİ	KORKMAZ		14/09/2012
10/21/2015 1:34:26 PM	3845	0	BANU	HORDAN		23/08/2013
10/21/2015 1:35:34 PM	1158	0	NERMİN	MEHMET RIZKI		27/12/2010
10/21/2015 1:51:36 PM	5175	0	İLHAN	İLİN		14/01/2015
10/21/2015 2:00:00 PM	4681	0	AK	NİLCİN SARD		21/07/2014
Consumer NoTotal : 16902774						

# AK-311 Prepaid Water Meter



- Prepaid water meter consists of mechanical water meter with pulse output, valve-gearbox group, electronic board and batteries.



MI-001  
OIML R 49

TS EN ISO/IEC  
17025:2010

TS EN ISO/IEC  
17020:2005

ISO 9001  
BUREAU VERITAS  
Certification



# AK-311 Prepaid Water Meter

## Technical Features

Length: 190mm

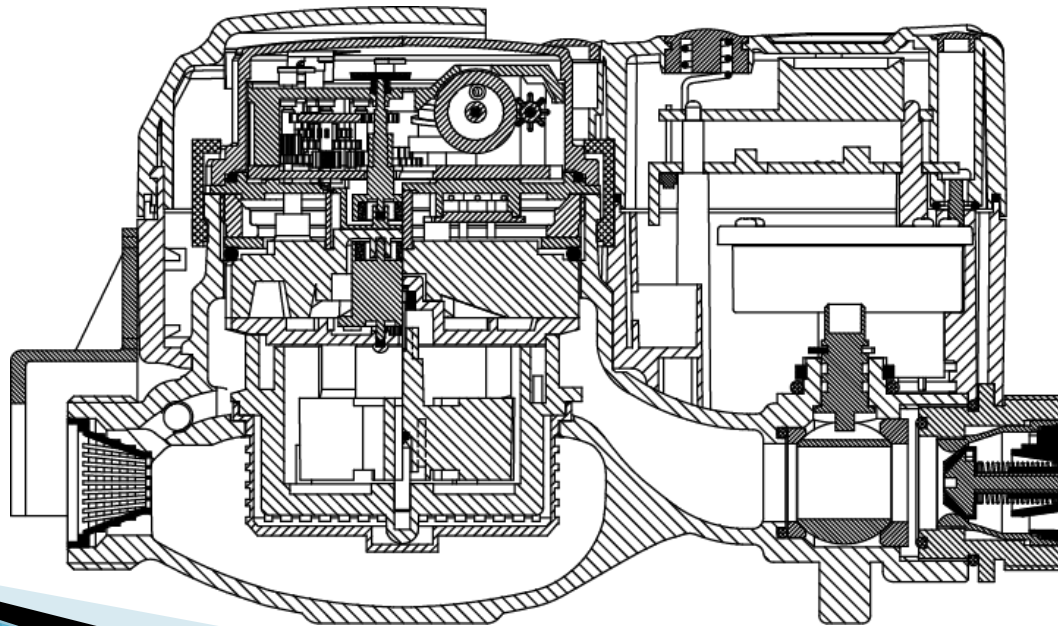
Maximum Flow Rate: 3.125m<sup>3</sup>/h

Diameter: 20mm

Minimum Flow Rate: 0,0156m<sup>3</sup>/h

Nominal Flow: 2,5m<sup>3</sup>/h Working Pressure: 16 bar

High Accuracy Multijet Meter with Brass Body.



# AK-311 Prepaid Water Meter

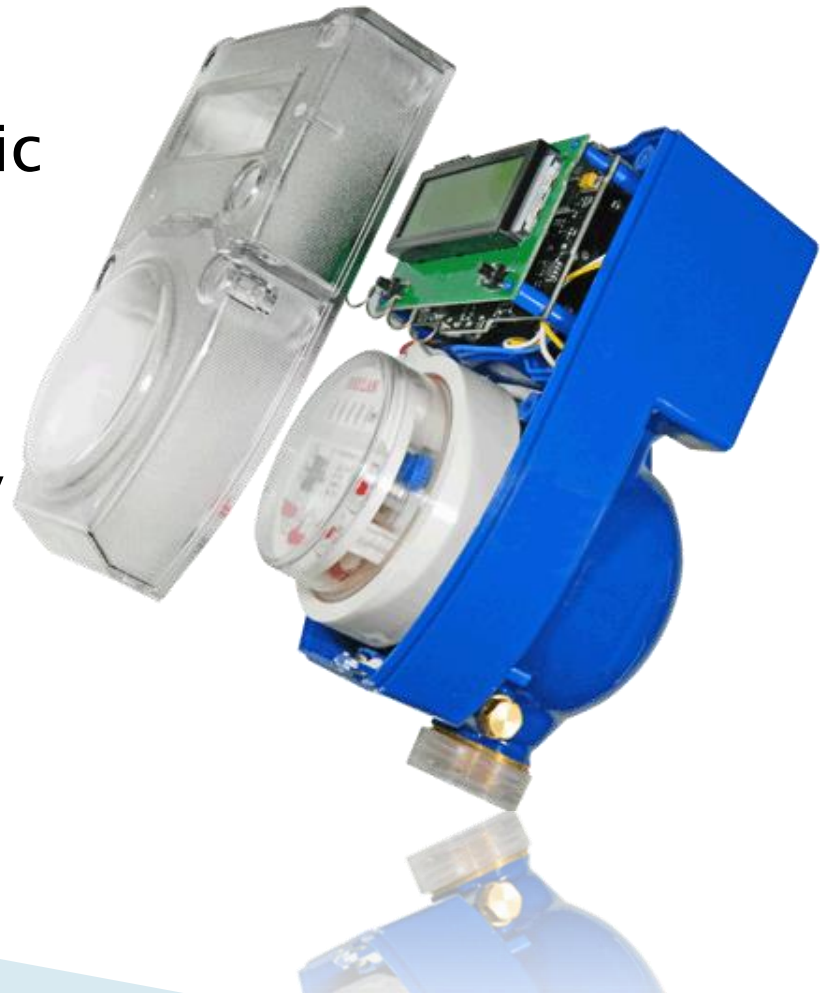
## Geared Motor Ball Valve



- Non-corrosive metal
- Electronic circuit controlled working
- Periodically opening and closing function against blocking of the valve

# AK-311 Prepaid Water Meter

- The electronic board is protected from magnetic fields and electrostatic discharge.
- The water meter is fully isolated from water, steam and humidity.



# AK-311 Prepaid Water Meter

## Meter with Pulse Output



- Pulse output system: Insulated from external influences and the magnetic field
- Full protection against magnetic interference and switching the penalty mode

# AK-311 Prepaid Water Meter

## Electronic Circuit Board

- Electronic Board placed in an isolated meter body.
- In Circuit Programming feature.
- Integrated contactless smart card reader circuit on board



# AK-311 Prepaid Water Meter

- The consumption can be read either mechanical meter or electronic display.
- The electronic unit displays the loaded credits, remaining credits, total consumption, unit credit fee, ban state and the condition of the battery





# AK-311 Prepaid Water Meter

## Connections Removed Exception

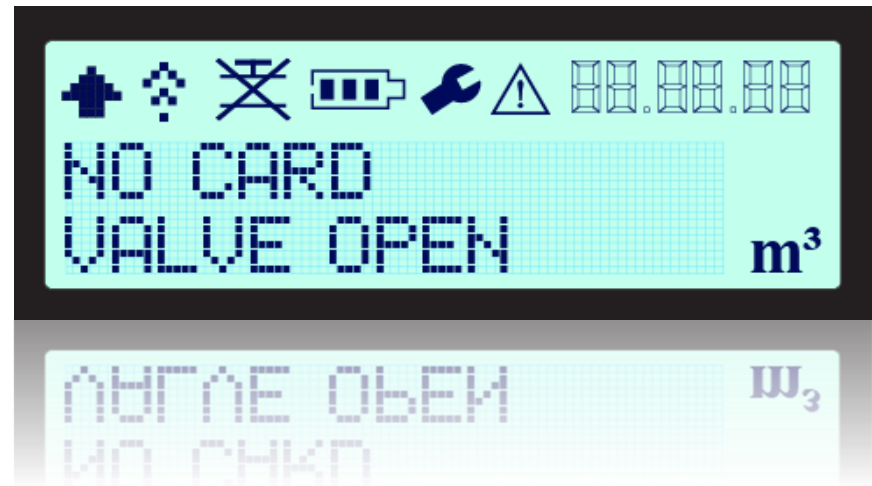


- If the device installed against removal of connections is removed the water meter shuts off the valve and disables the use.
- It displays the "Exception! Connections Removed" message on the screen.

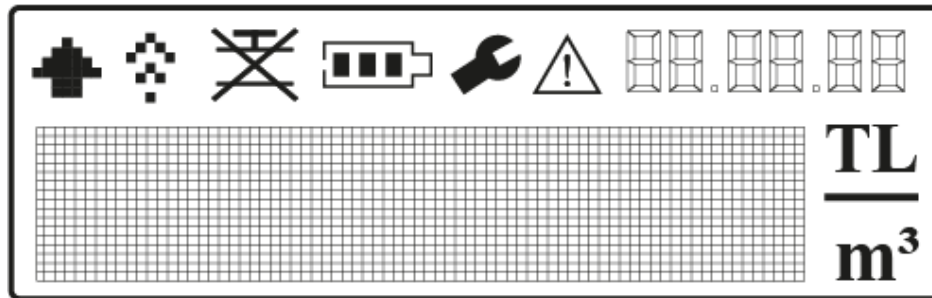
# AK-311 Prepaid Water Meter

## LCD Screen

- 8 characters wide-angle LCD screen with backlight
- Warning and information icons
- Polycarbonate glass screen saver
- 64x20 mm – 30° display angle



# AK-311 Prepaid Water Meter



LCD Display



Flow direction



RF Signal On



Valve shut off icon (Activated when the valve is in closed state)



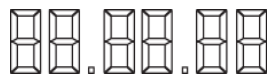
Battery Level Icon (The icon shows the charge level of the battery)



Warning Icon (Displayed when an exception or warning is active)



Key icon (Displayed in case of any detected defect)



Displays (The icons that the date time of of water meter is displayed)

# AK-311 Prepaid Water Meter

## Power Unit

- Battery energy level is measured continuously and moved to the smart card system.
- Batteries shelf life of 10 years.
- When the battery level falls below the critical value, system information (consumption, credit, debt, penalty) stores to memory and the valve closes.



# AK-311 Prepaid Water Meter

## Power Unit

- Long life Li-MnO<sub>2</sub> and Li-SOCl<sub>2</sub> Lithium batteries.
- Batteries are completely isolated from outside influences in the meter
- Replacement feature by local administration and storing illegal intervention.



# AK-311 Prepaid Water Meter

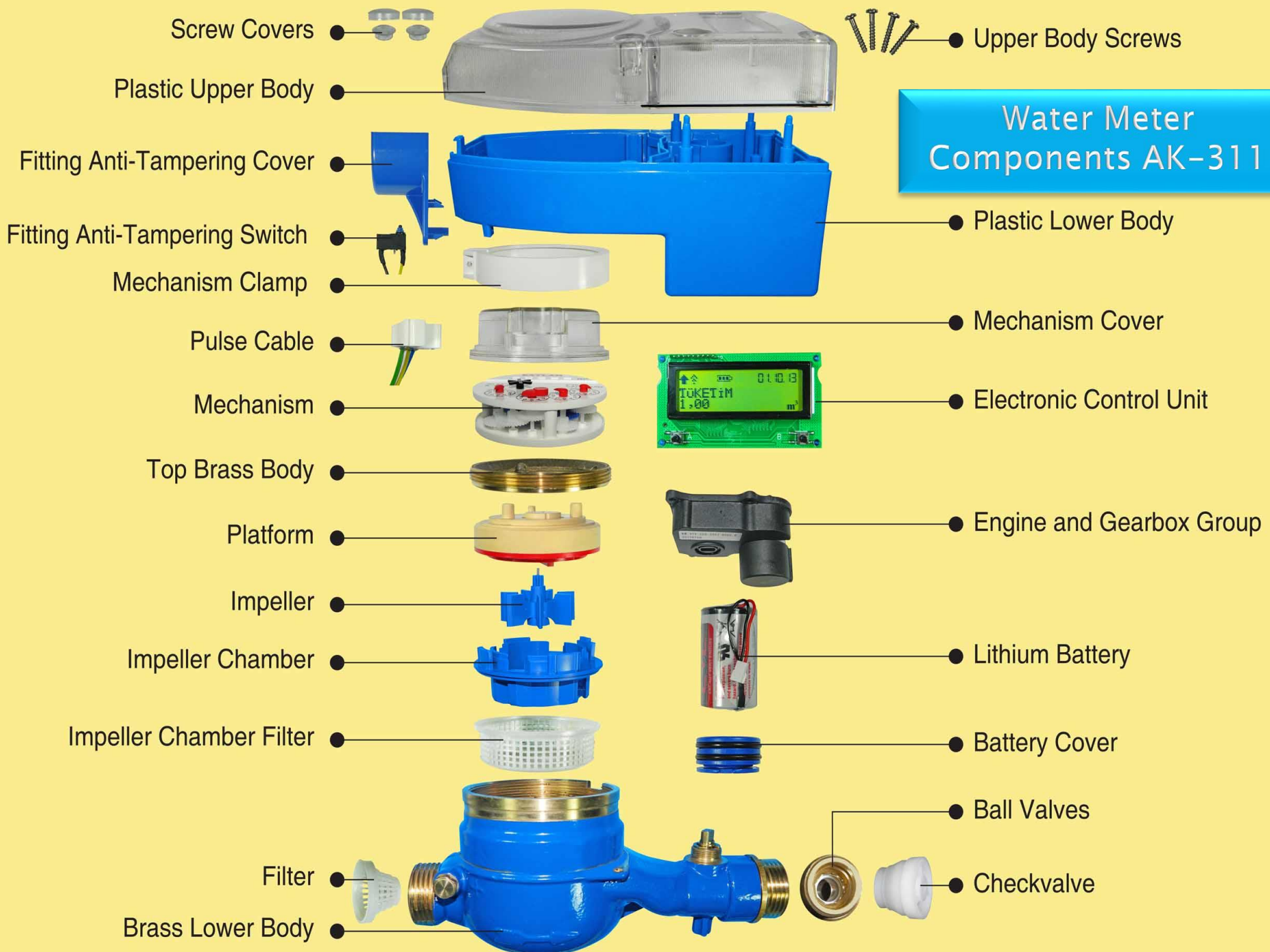
- Utilities can reach all of data about the water meter via its smart card.
- Decreases staff workload and costs,
- Eliminates meter reading, billing and valve opening/closing process,



# AK-311 Prepaid Water Meter

- Contactless Smart Card – ISO 14443A Protocol
- Contactless card usage ensures isolation against external affects
- ISO / IEC DIS9798-2 standard for encrypted communication with the three-stage







# BAYLAN

WATER METERS

İZMİR/TURKEY

**THANK YOU FOR  
ATTENTIONS**



2016 TÜRKİYE'NİN İLK 1000 İHRACATÇI FİRMASI  
TOP 1000 EXPORTERS OF TURKEY