



EU - TYPE EXAMINATION CERTIFICATE



No. SK 17 - 115 MI-001 Rev. 2

This revision replaces all previous versions of this Certificate in full wording

Issued by **Slovenská legálna metrologia, n. o.** Notified Body number **1432**
Hviezdoslavova 31
974 01 Banská Bystrica
Slovak Republic

In accordance with Annex II, Module B to Regulation of the Government of the Slovak Republic No 145/2016 Coll. on making available of measuring instruments on the market, in the wording of the Regulation of the Government of the Slovak Republic No 328/2019 Coll., which implements, in Slovakia, the Directive 2014/32/EU of the European Parliament and of the Council of 26 February 2014 on the harmonisation of the laws of the Member States relating to the making available on the market of measuring instruments as later amended (MID).

Applicable essential requirements Annex I and Annex III to MID

Manufacturer **YAVUZ METAL SANAYİ VE TİCARET ANONİM ŞİRKETİ**
Organize Sanayi Bolgesi 2.Cadde No:4,
Arsin / TRABZON, Turkey

Applicant **Manufacturer**

Measuring instrument **Water meter**

Type	KDM...
Trade mark	CEM
Environment classes	
- climatic	(-10 to +55)°C
- mechanical	M1
- electromagnetic	E1

Description and documentation The principal technical and metrological data, characteristics, instrument description and approval conditions are set out in the Descriptive annex to this EU - type examination certificate (25 pages), which is part of this EU - type examination certificate. The test reports, designs, schematic diagrams and documentation used during certification process are stored in the reference folder YAVUZ_KDM_00 and 02.

Valid until **12 January 2027**

Date of issue **12 February 2024**



Ing. Dušan Šmigura, PhD.
Representative of Notified Body



Where the instrument is subject to other Directives covering other aspects, this EU - type examination certificate is valid, assuming that the instrument conforms to the provisions of those Directives. Without written permission of the notified body this certificate may be reproduced only as a whole.

1. Designation

The water meters series KDM... (models KDM1, KDM2, KDM3, KDM4, KDM5, KDM6, KDM7, KDM8, KDM9, KDM10, KDM11, KDM12 and models KDM2-M1, KDM5-M1, KDM7-M1, KDM8-M1, KDM8-M2, KDM9-M1, KDM10-M1, KDM12-M1) are designed to measure, memorise and display the volume at metering conditions of water passing through the measurement transducer. They are intended for the measurement of volumes of cold water in household or a residential use.

The water meters series KDM... are mechanical multi-jet rotary vane wheel water meters with the mechanical indication device and consist of a brass body. The water meters series KDM... shall be installed to operate in horizontal position only with the indication device positioned at the top and are not designed to measure the reverse flow.

The water meters series KDM... (models KDM2-M1, KDM5-M1, KDM7-M1, KDM8-M1, KDM8-M2, KDM9-M1, KDM10-M1, KDM12-M1) are mechanical multi-jet rotary vane wheel water meters with the mechanical indication device. They are equipped with the pre-payment unit that is placed on the water meter or next to the water meter on the pipe.

The pre-payment unit and its indication does not provide metrologically controlled indications concerning this certificate and it is outside the scope of Directive 2014/32/EU. After prepaying the water flow is enable via a controlled valve which is part of the pre-payment unit. In all cases the original mechanical register of the water meter shall remain visible. In case of dispute this register forms the decisive indication of the water meter.

2. Description

Essential parts of the water meters series KDM...:

- measuring mechanism - consisting of a chamber and the rotary vane wheel (impeller) with an axle perpendicular to the flow direction;
- dry type mechanical register – 5 digital drums and 4 pointers with gearing mechanism for all figures, inside vacuumed cover (including magnetic field protection);
- housings of water meter with inlet and outlet connections;
- adjustment device – an adjustment screw for adjusting the internal by-pass flow of the meter;
- magnetic coupling for the connection of the register with the measuring part (impeller).

Non-essential parts of the water meters:

- strainer in the inlet of the meter;
- non - return valve (optional);
- pre-payment unit (models KDM2-M1, KDM5-M1, KDM7-M1, KDM8-M1, KDM8-M2, KDM9-M1, KDM10-M1, KDM12-M1).

2.1 Metrological functions

- measuring, memorizing and displaying the volume of water passing through the water meter.

2.2 Software

- not applicable



2.3 Optional equipment and functions subject to MID requirements

- not applicable

2.4 Integrated equipment and functions not subject to MID

- pre-payment unit (models KDM2-M1, KDM5-M1, KDM7-M1, KDM8-M1, KDM8-M2, KDM9-M1, KDM10-M1, KDM12-M1);
- data output module RF or MBUS (optional);
- pulse output module (optional).

Via the integrated equipment no legally relevant data shall be altered. The pre-payment unit and its indication does not provide the metrological controlled indications. Data transferred via the integrated equipment are not considered as a metrological relevant data in sense of Directive 2014/32/EU. In case of dispute the reading of the mechanical register of water meter is the measurement result that serves as the basis for the price to pay. In all cases the original mechanical register of the water meter shall remain visible.

The prepayment unit and integrated equipment and functions according to point 2.4 of this Descriptive Annex is outside the scope of Directive 2014/32/EU and was no assessed by SLM under this certificate.

3. Technical and metrological data

3.1 Technical and metrological data for water meters types KDM1, KDM2, KDM2-M1, KDM3, KDM4

Type	unit	KDM1	KDM2/ KDM2-M1	KDM3	KDM4
Nominal diameter DN	mm	15		20	
Permanent flowrate Q_3	m^3/h	2,5			
Minimum flowrate Q_1	m^3/h	0,025 0,02 0,0156			
Transitional flowrate Q_2	m^3/h	0,04 0,032 0,025			
Overload flowrate Q_4	m^3/h	3,125			
Ratio Q_3/Q_1	-	100 125 160			
Ratio Q_2/Q_1	-	1,6			
Connection thread	-	G ½ B		G 1 B	
Construction length	mm	110 115	165-170-190/ 190	110 115	130-165-170-175
Installation position	-	H (indicating device positioned on top)			
Water temperature range Θ (temperature class T)	°C	0,1 to 50 T50			
Maximum admissible pressure MAP	bar	16			
Pressure loss class Δp	bar -	0,63 Δp 63			
Maximum permissible error in upper flowrates range $Q_2 \leq Q \leq Q_4$	%	± 2 (at $\Theta \leq 30^\circ C$) ± 3 (at $\Theta > 30^\circ C$)			

Type	unit	KDM1	KDM2/ KDM2-M1	KDM3	KDM4
Maximum permissible error in lower flowrates ranges $Q_1 \leq Q < Q_2$	%	± 5			
Scale interval	m ³	0,00005			
Capacity of calculator	m ³	99999			
Mechanical class	-	M1			
Climatic class	°C	-10 to +55			
Electromagnetic class	-	E1			
Flow profile sensitivity class	-	U0D0			

3.2 Technical and metrological data for water meters types KDM5, KDM5-M1, KDM6, KDM7, KDM7-M1, KDM8, KDM8-M1, KDM8-M2

Type	unit	KDM5/ KDM5-M1	KDM6	KDM7/ KDM7-M1	KDM8/ KDM8-M1/ KDM8-M2
Nominal diameter DN	mm	20			25
Permanent flowrate Q_3	m ³ /h	2,5		4	6,3
Minimum flowrate Q_1	m ³ /h	0,025 0,02 0,0156		0,04 0,032 0,025	0,063 0,050 0,0393
Transitional flowrate Q_2	m ³ /h	0,04 0,032 0,025		0,064 0,0512 0,04	0,1 0,08 0,063
Overload flowrate Q_4	m ³ /h	3,125		5	7,875
Ratio Q_3/Q_1	-	100 125 160			
Ratio Q_2/Q_1	-	1,6			
Connection thread	-	G 1 B			G 1 ¼ b
Construction length	mm	190-200-220/ 190	190	165-170-175-190- 200-220/ 190	260/ 260/ 320
Installation position	-	H (indicating device positioned on top)			
Water temperature range Θ (temperature class T)	°C	0,1 to 50 T50			
Maximum admissible pressure MAP	bar	16			
Pressure loss class Δp	bar -	0,63 Δp 63			
Maximum permissible error in upper flowrates range $Q_2 \leq Q \leq Q_4$	%	± 2 (at $\Theta \leq 30^\circ\text{C}$) ± 3 (at $\Theta > 30^\circ\text{C}$)			
Maximum permissible error in lower flowrates ranges $Q_1 \leq Q < Q_2$	%	± 5			
Scale interval	m ³	0,00005			
Capacity of calculator	m ³	99999			
Mechanical class	-	M1			

Type	unit	KDM5/ KDM5-M1	KDM6	KDM7/ KDM7-M1	KDM8/ KDM8-M1/ KDM8-M2
Climatic class	°C	-10 to +55			
Electromagnetic class	-	E1			
Flow profile sensitivity class	-	U0D0			

3.3 Technical and metrological data for water meters types KDM9, KDM9-M1, KDM10, KDM10-M1, KDM11, KDM12, KDM12-M1

Type	unit	KDM9/ KDM9-M1	KDM10/ KDM10-M1	KDM11	KDM12/ KDM12-M1
Nominal diameter DN	mm	32	40	50	
Permanent flowrate Q_3	m ³ /h	10	16	25	
Minimum flowrate Q_1	m ³ /h	0,1 0,08 0,0625	0,16 0,125 0,1	0,25 0,2 0,156	
Transitional flowrate Q_2	m ³ /h	0,16 0,125 0,1	0,256 0,204 0,16	0,4 0,32 0,25	
Overload flowrate Q_4	m ³ /h	12,5	20	25	
Ratio Q_3/Q_1	-	100 125 160			
Ratio Q_2/Q_1	-	1,6			
Connection thread	-	G 1 ½ B	G 2 B	G 2 ½ B	2" Flange
Construction length L	mm	260/ 490	300/ 530	300	350/ 570
Installation position	-	H (indicating device positioned on top)			
Water temperature range Θ (temperature class T)	°C	0,1 to 50 T50			
Maximum admissible pressure MAP	bar	16			
Pressure loss class Δp	bar	0,63 Δp 63			
Maximum permissible error in upper flowrates range $Q_2 \leq Q \leq Q_4$	%	± 2 (at $\Theta \leq 30^\circ\text{C}$) ± 3 (at $\Theta > 30^\circ\text{C}$)			
Maximum permissible error in lower flowrates ranges $Q_1 \leq Q < Q_2$	%	± 5			
Scale interval	m ³	0,00005			
Capacity of calculator	m ³	99999			
Mechanical class	-	M1			
Climatic class	°C	-10 to +55			
Electromagnetic class	-	E1			
Flow profile sensitivity class	-	U0D0			

4. Interfaces and compatibility conditions

- not applicable

5. Marking and inscriptions

The following data shall be marked on the water meter:

- manufacturer's name or mark;
- manufacturer's postal address (article 8, point 6 of Directive 2014/32/EU);
- type of water meter;
- measuring unit m^3 ;
- year of production and serial number;
- flowrate Q_3 and ratio Q_3/Q_1 ; (R);
- installation position of the water meter (H);
- maximum admissible pressure ($MAP 16$);
- pressure loss class ($\Delta p 63$);
- temperature class ($T50$);
- EU - type examination certificate number;
- information/inscription that the pre-payment unit does not provide metrologically controlled indications. This information/inscription shall be visibly, legibly and indelibly placed on the prepayment unit near the LCD indication;
- CE marking and supplementary metrology marking according to Article 21 and Article 22 of Directive 2014/32/EU (CE marking and supplementary metrology marking following with number of a notified body).

The flow direction shall be marked on a water meter's body in form of an arrow.

All inscriptions on the meter shall be in the EU official language; the international abbreviations and generally accepted symbols are acceptable.

The markings and inscriptions shall comply with the requirements of cl. 9, Annex I to Directive No. 2014/32/EU of European Parliament and Council.

5.1 Designation of trademark on the water meters

The manufacturer uses following trademark on its water meters:

6. Security measures

- The water meters series KDM... shall be protected against unauthorised manipulation by one seal (lead or plastic seal with a wire) securing the connection of the water meter head with the screw cap of adjustment device.

7. Requirements on production, putting into use and utilization

7.1 Requirements on production

- no special requirements identified

7.2 Requirements on putting into use

- water meters must be installed in accordance with the requirements stated in the user manual issued by the manufacturer;
- no requirements for straight pipeline length in upstream and downstream are specified. Flow profile sensitivity class of the water meters is U0, D0 according to EN 14154-1:2005+A2:2011;
- initial verification tests of the water meters are recommended to carry out in line with section 9.2 of EN 14154-1:2005+A2:2011.

7.3 Requirements for utilization

- in accordance with the requirements of the manufacturer's documentation.

8. Documentation used for assessment purposes

- Evaluation report No 7/1432/24 MI-001, of 2024-02-12, issued by SLM NB 1432;
- Manufacturer's technical documentation stored in folders *YAVUZ_KDM_00 to 02*.

9. Standards and regulations used for assessment purposes

9.1 Regulations, harmonized standards and normative documents

- Government Ordinance of the Slovak Republic No. 145/2016 Coll. relating to the making available on the market of measuring instruments as amended by Regulation of Government of the Slovak Republic no. 328/2019 Coll., which implements in Slovakia, the Directive 2014/32/EU of the European Parliament and of the Council of 26 February 2014 on the harmonisation of the laws of the Member States relating to the making available on the market of measuring instruments as later amended (MID);
- EN 14154-1: 2005 + A2: 2011 Water meters - Part 1: General requirements;
- EN 14154-2: 2005 + A2: 2011 Water meters - Part 2: Installation and conditions of use;
- EN 14154-3: 2005 + A2: 2011 Water meters - Part 3: Test methods and equipment.

9.2 Further applied standards and documents

- OIML R 49-1, edition 2013 (E): Water meters for cold potable water and hot water. Part 1: Metrological and technical requirements
- OIML R 49-2, edition 2013 (E): Water meters for cold potable water and hot water. Part 2: Test methods
- EN ISO 4064-1: 2014 Water meters for cold potable water and hot water. Part 1: Metrological and technical requirements
- EN ISO 4064-2: 2014 Water meters for cold potable water and hot water. Part 2: Test methods

- EN ISO 4064-5: 2014 Water meters for cold potable water and hot water. Part 5: Installation requirements
- WELMEC CT-001 Measuring Instruments Directive, Water Meters, Corresponding Tables OIML R 49 2013 – MID Annex I and III (MI-001).

10. Final provisions on water meter

Construction, technical and metrological parameters of the meter must comply with the documentation presented within the process of type certification. All properties of this water meter, whether mentioned or not, shall not be in conflict with the legislation. All characteristics of the measuring instrument (including those not mentioned) shall meet the respective requirements of Government Ordinance of the Slovak Republic No. 145/2016 Coll. relating to the making available on the market of measuring instruments as amended by Regulation of Government of the Slovak Republic no. 328/2019 Coll., which implements, in Slovakia, the Directive 2014/32/EU of the European Parliament and of the Council of 26 February 2014 on the harmonisation of the laws of the Member States relating to the making available on the market of measuring instruments as later amended (MID).



11. Figures



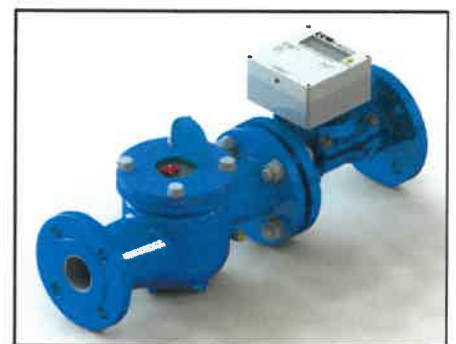
Mekanik Modeller
Mechanical Models



Dahili Vanalı Modeller
Internal Valve Models



Harici Vanalı Vida Bağlantılı Modeller
Screw Connection Models with External Valves



Harici Vanalı Flanş Bağlantılı Modeller
Flange Connection Models with External Valves

Fig. 1a: Illustrative view on water meters series KDM... and KDM...-M1, M2



KDM1, KDM3



KDM2, KDM4



KDM5, KDM7



KDM6



Fig. 1b: Illustrative view on water meters series KDM...

KDM8



KDM9



KDM10, KDM11



KDM12



Fig. 1c: Illustrative view on water meters series KDM....



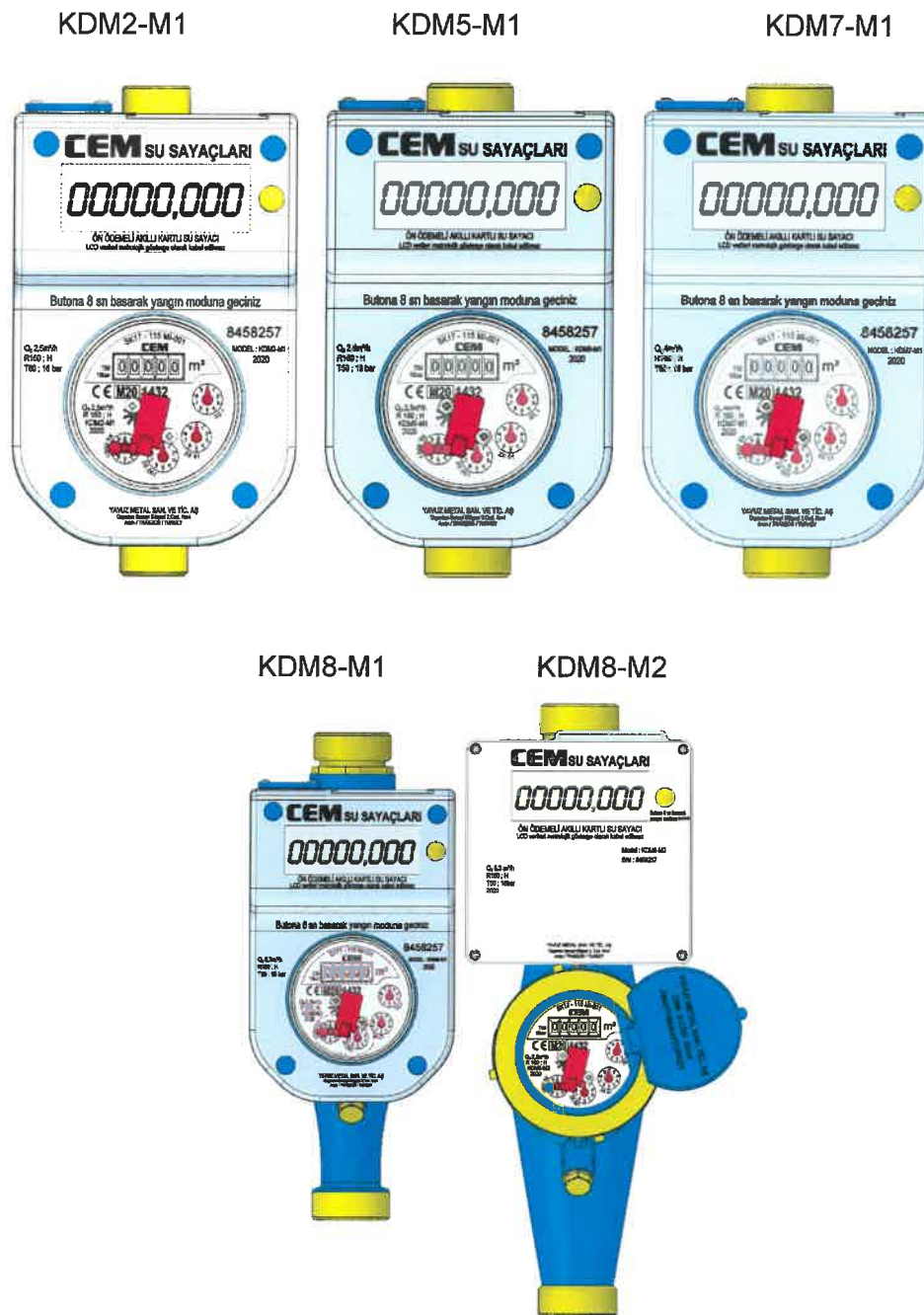


Fig. 1d: Illustrative view and illustrative marking on water meters series KDM...-M1, M2 with prepayment units



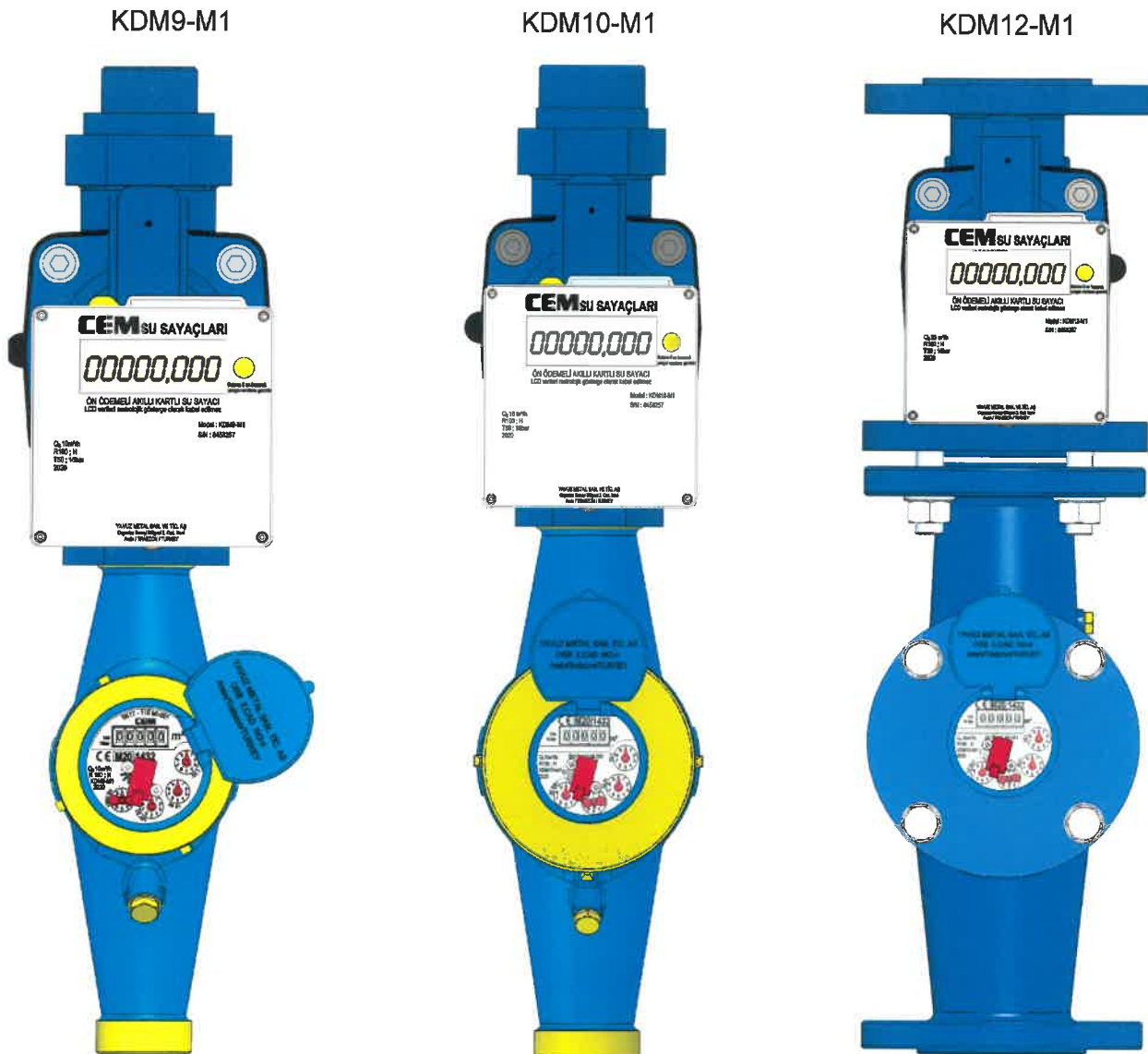


Fig. 1e: Illustrative view and illustrative marking on water meters series KDM...-M1 with prepayment unit



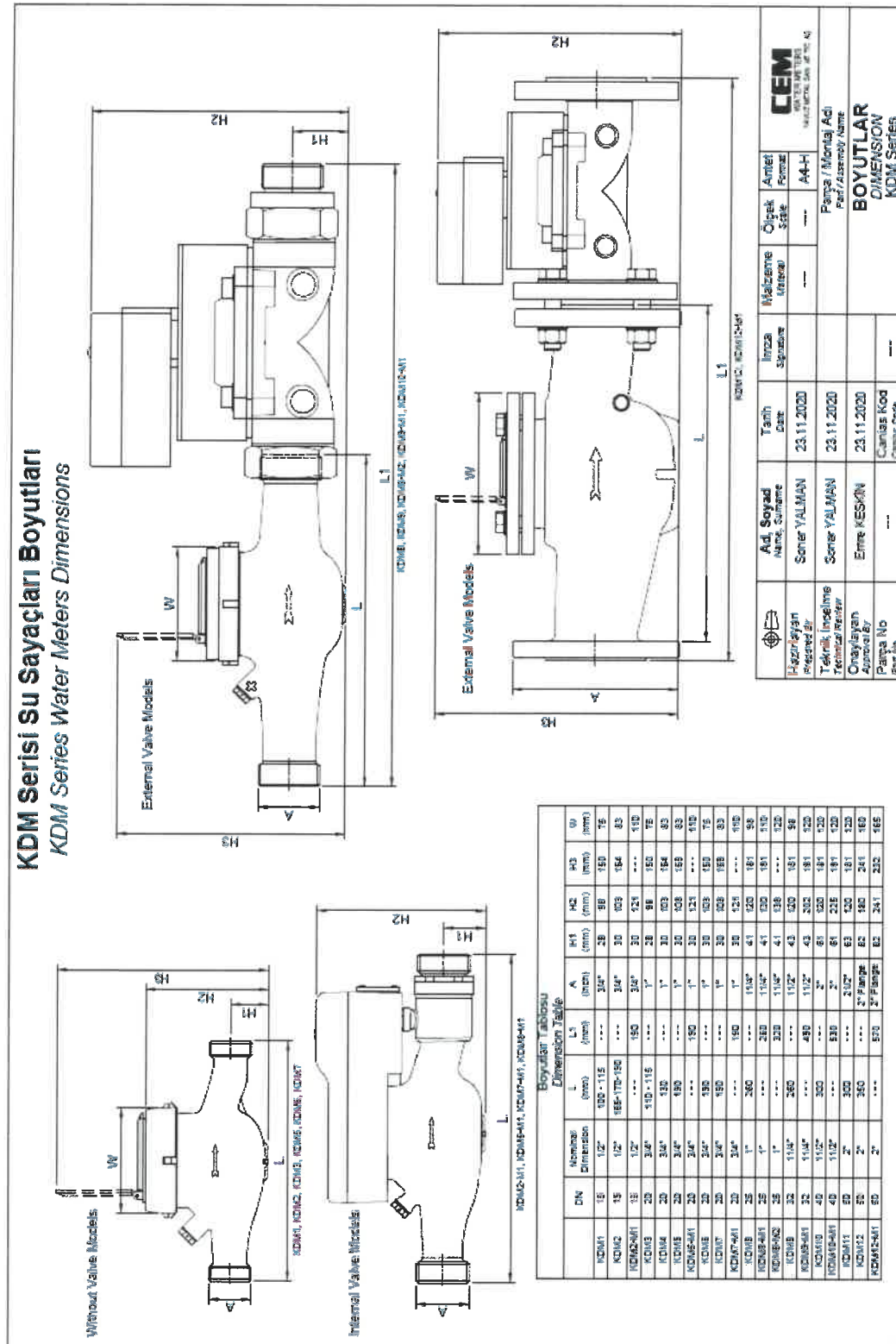
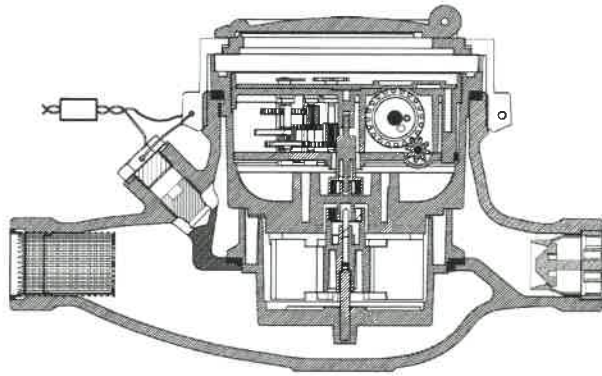


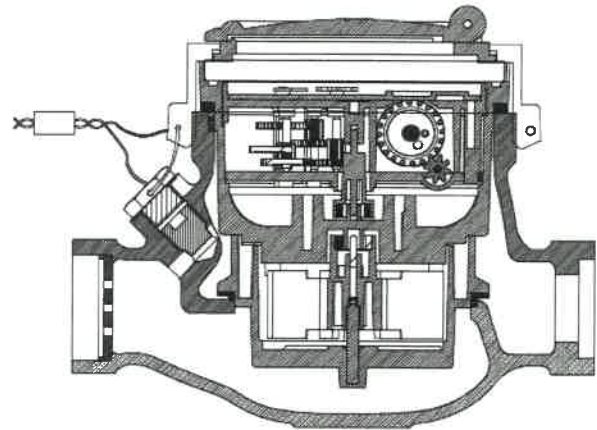
Fig. 2: Main dimensions on water meters series KDM... and KDM...-M1, M2



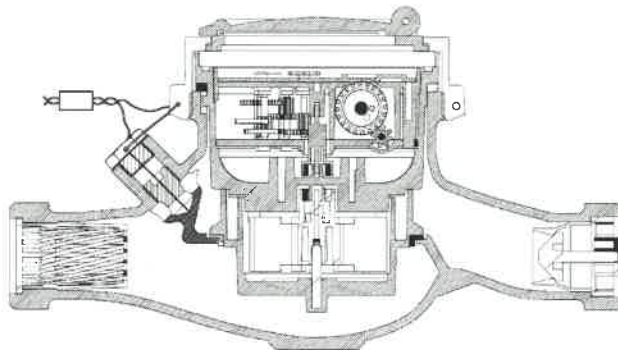
KDM2



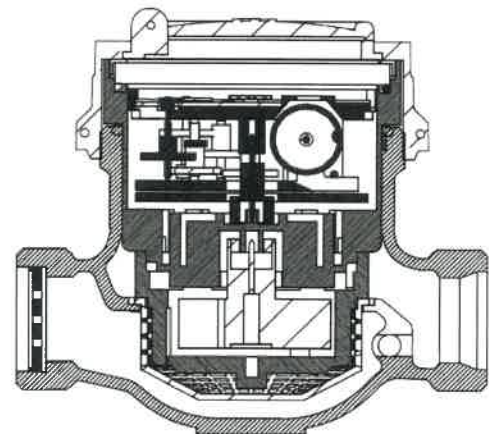
KDM4



KDM5, KDM7



KDM1, KDM3



3a: Cross section of water meters types KDM1, KDM2, KDM3, KDM4, KDM5, KDM7



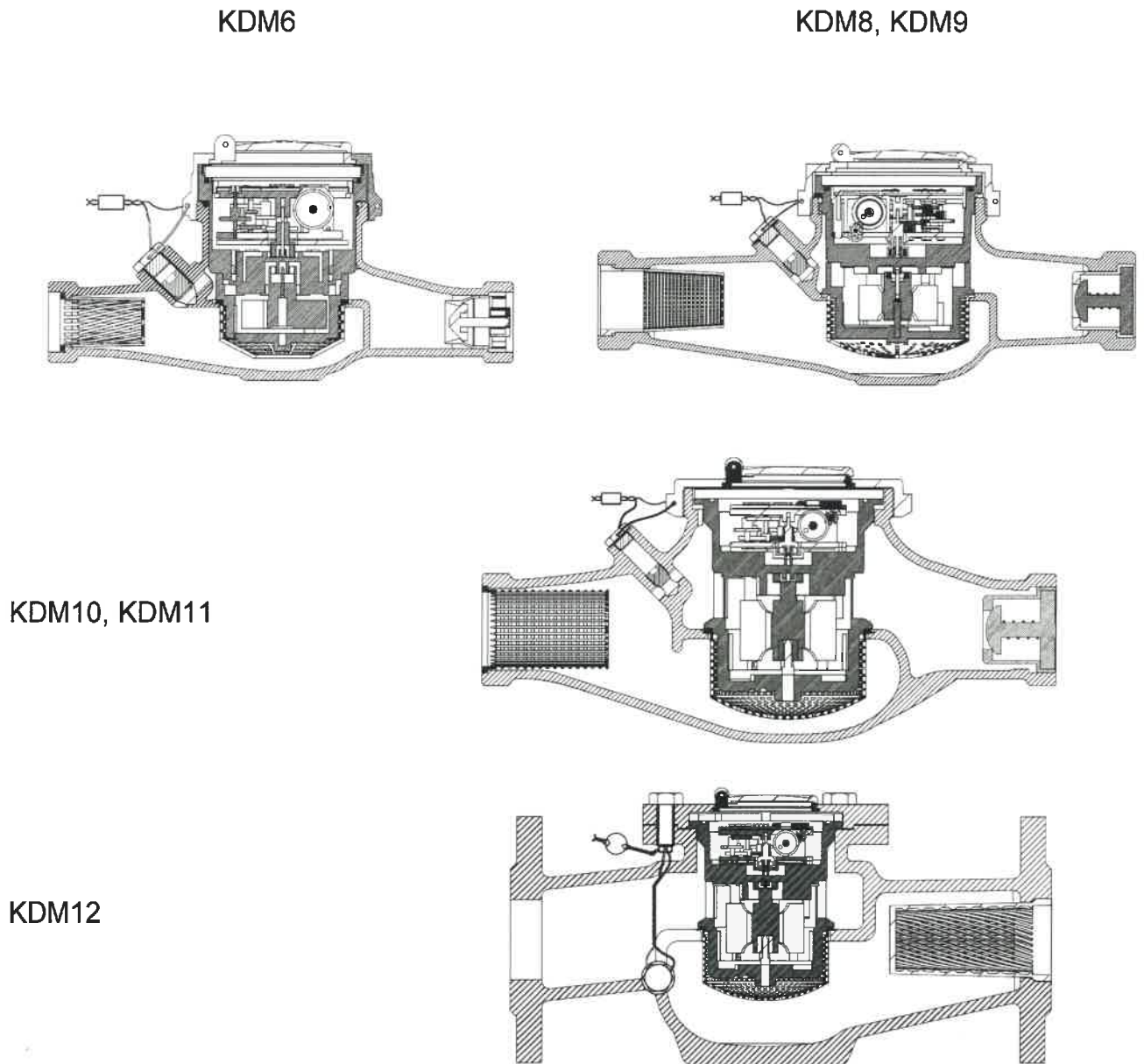
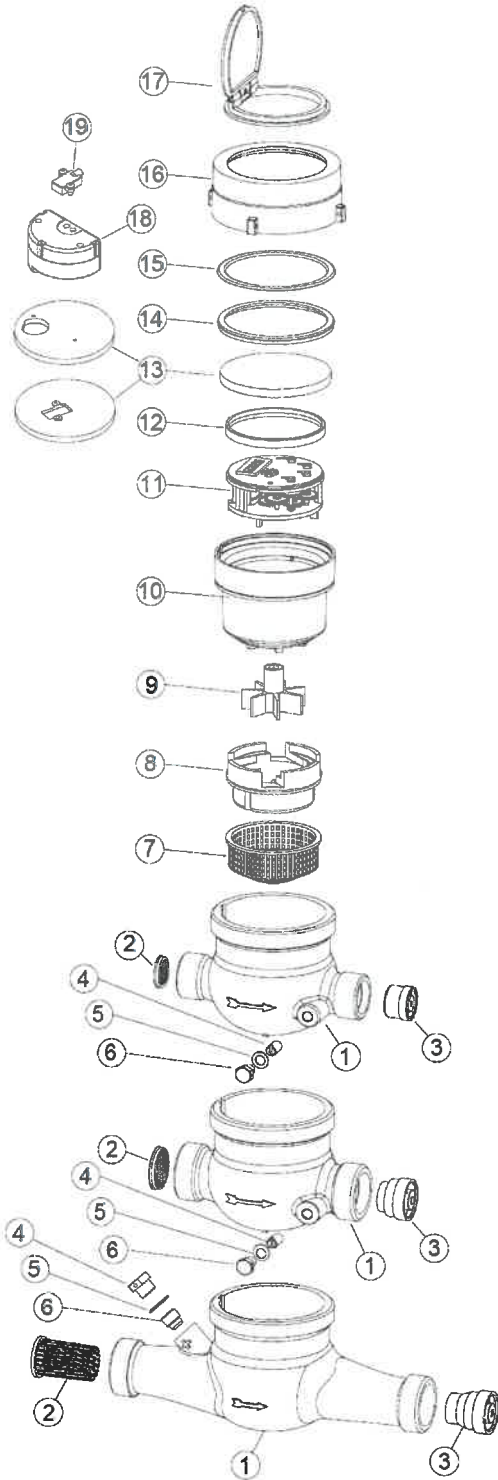


Fig. 3b: Cross section of water meters types KDM6, KDM8, KDM9, KDM10, KDM11, KDM12



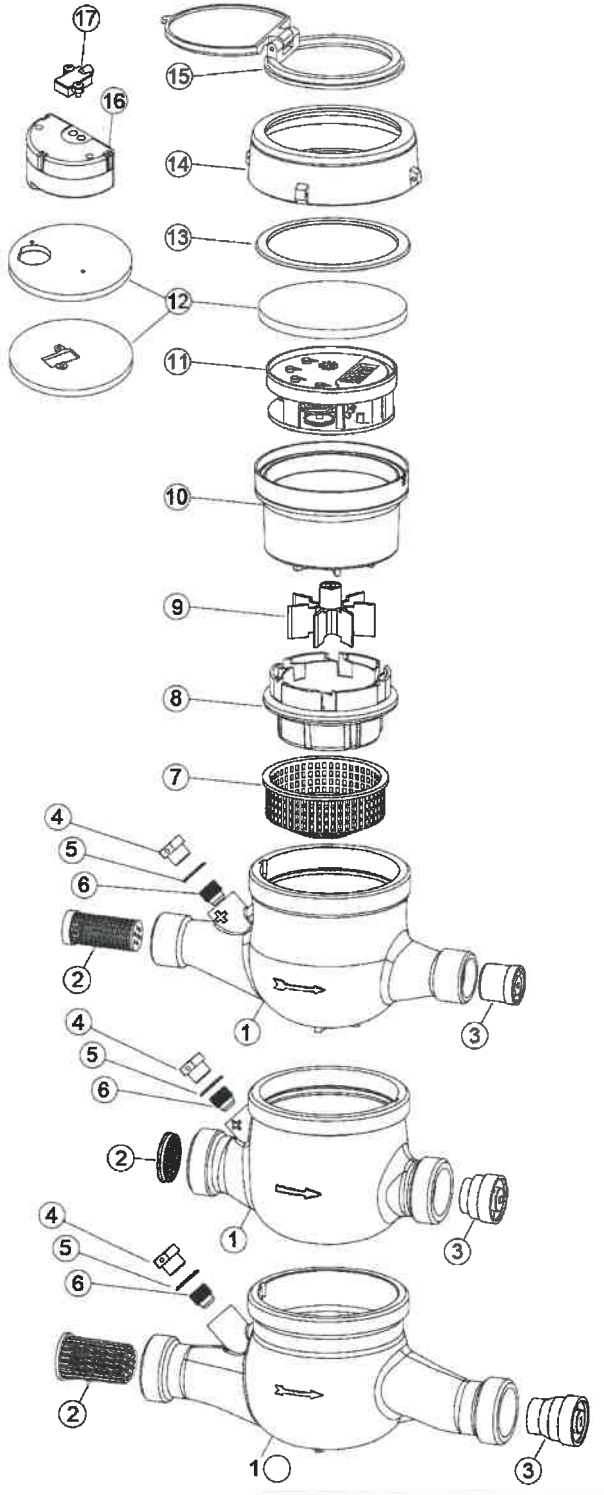


	Parça Adı Part Name	Malzeme Material
1	Alt Gövde Lower Body	Pirinç Brass
2	Giriş Filtresi Inlet Strainer	POM
3	Çek valf Non Return Valve	ABS, PVC, Paslanmaz Çelik ABS, PVC, Stainless Steel
4	Ayar Vidası Adjustment Screw	ABS
5	Ayar Tapa Contası Adjustment Plug Seal	ABS
6	Ayar Tapası Adjustment Plug	Pirinç Brass
7	Pervane Çanağı Filtresi* Propeller Chamber Strainer	POM
8	Pervane Çanağı Propeller Chamber	ABS, Paslanmaz Çelik ABS, Stainless Steel
9	Pervane Propeller	POM, Paslanmaz Çelik, Safir Taşı, PCM, Stainless Steel, Sapphire, Ferrit Magnet
10	Kayıt Grubu Çanağı Register Group Chamber	ABS, Safir Taşı ABS, Sapphire
11	Kayıt Grubu Register Group	ABS, Paslanmaz Çelik ABS, Stainless Steel
12	Kayıt Grubu Bileziği Register Group Ring	ABS
13	Cam Glass	PC veya Mineral PC or Mineral
14	Cam Bileziği Glass Ring	ABS
15	Kaydırma Pulu Shifting Ring	ABS
16	Üst Gövde Upper Body	Pirinç Brass
17	Kapak Grubu Cover Group	ABS, Paslanmaz Çelik ABS, Stainless Steel
18	RF / M-Bus Modül RF / M-Bus Module	---
19	Pulse Çıkış Modülü Pulse Output Module	---

* Opsiyonel / Optional

Fig. 4a: Exploded view of water meters types KDM1, KDM3, KDM6

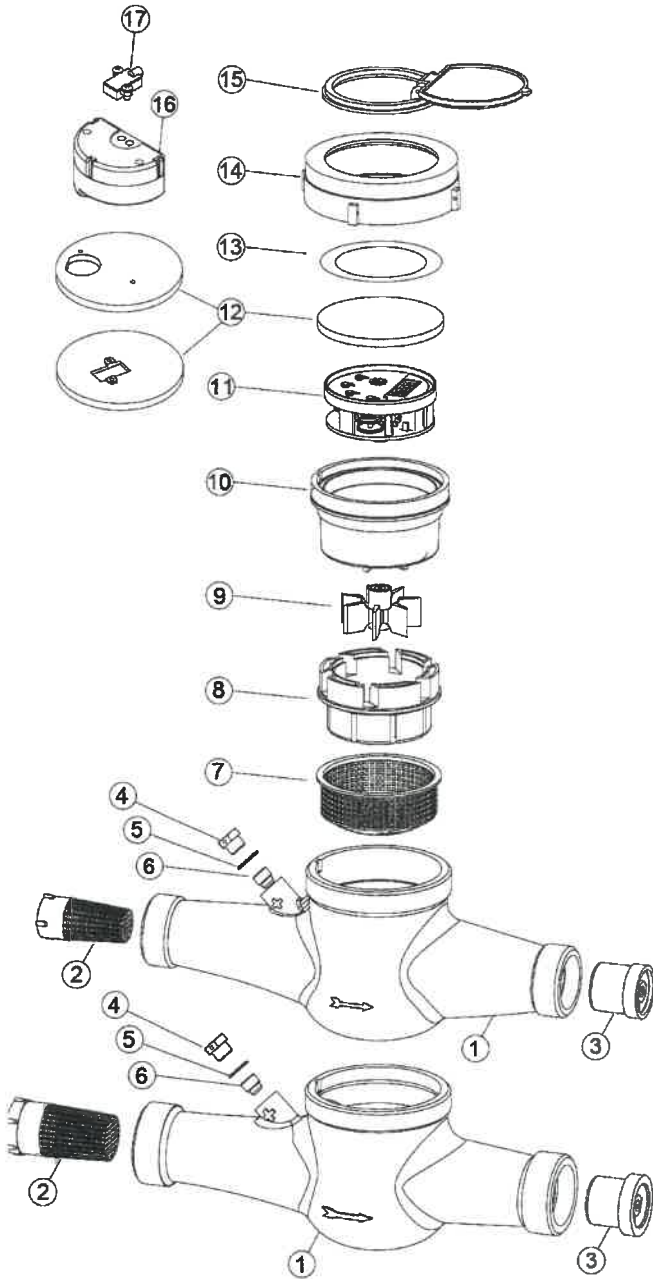




	Parça Adı Part Name	Malzeme Material
1	Alt Gövde Lower Body	Pirinç Brass
2	Giriş Filtresi Inlet Strainer	POM
3	Çek valf Non Return Valve	ABS, PVC, Paslanmaz Çelik ABS, PVC, Stainless Steel
4	Ayar Vidası Adjustment Screw	ABS
5	Ayar Tapa Contası Adjustment Plug Seal	ABS
6	Ayar Tapası Adjustment Plug	Pirinç Brass
7	Pervane Çanağı Filtresi* Propeller Chamber Strainer	POM
8	Pervane Çanağı Propeller Chamber	ABS, PVC, Paslanmaz Çelik ABS, Stainless Steel
9	Pervane Propeller	POM, Pas. Çelik, Safır Taşı, Ferrit Miknatıs POM, Stai. Steel, Shaphire, Ferrit Magnet
10	Kayıt Grubu Çanağı Register Group Chamber	ABS, Safır Taşı ABS, Shaphire
11	Kayıt Grubu Register Group	ABS, Paslanmaz Çelik ABS, Stainless Steel
12	Cam Glass	PC veya Mineral PC or Mineral
13	Kaydırma Pulu Shifting Ring	ABS
14	Üst Gövde Upper Body	Pirinç Brass
15	Kapak Grubu Cover Group	ABS, Paslanmaz Çelik ABS, Stainless Steel
16	RF / M-Bus Modül RF / M-Bus Module	---
17	Pulse Çıkış Modülü Pulse Output Module	---

* Opsiyonel / Optional

Fig. 4b: Exploded view of water meters types KDM2, KDM4, KDM5, KDM7

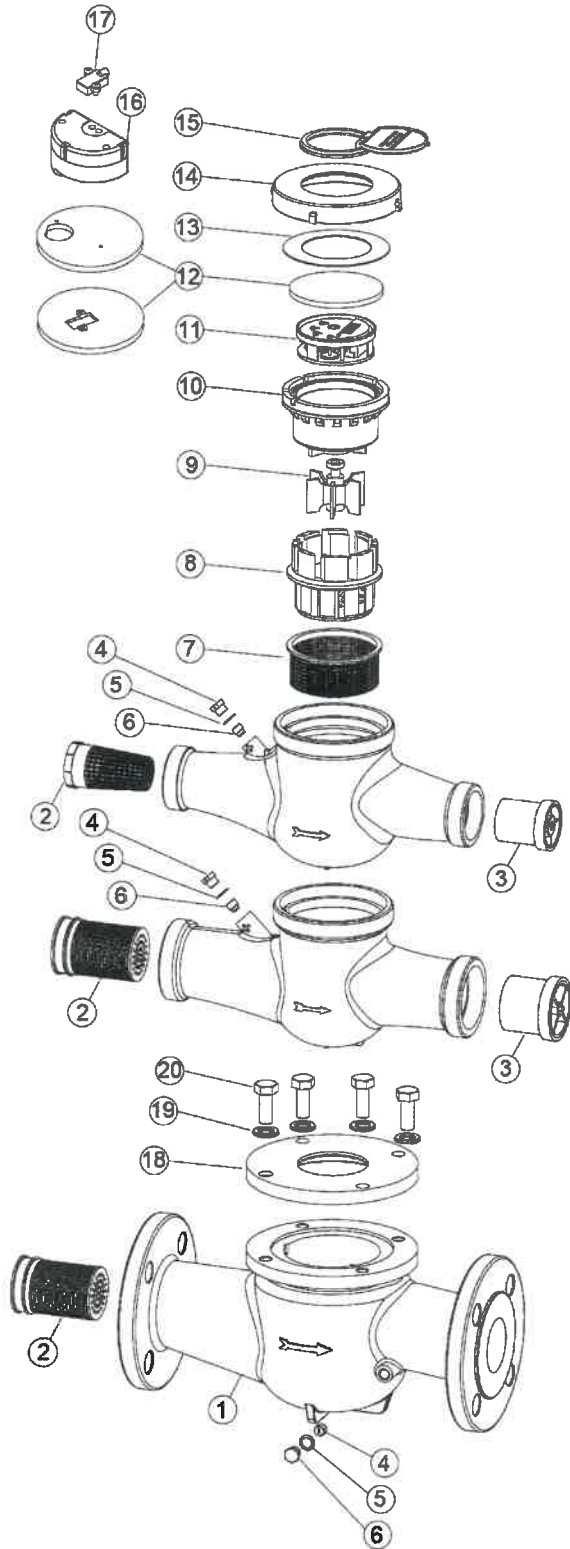


	Parça Adı Part Name	Malzeme Material
1	Alt Gövde Lower Body	Pirinç Brass
2	Giriş Filtresi Inlet Strainer	POM
3	Çek valf Non Return Valve	ABS,PVC, Paslanmaz Çelik ABS, PVC., Stainless Steel
4	Ayar Vidası Adjustment Screw	ABS
5	Ayar Tapa Contası Adjustment Plug Seal	ABS
6	Ayar Tapası Adjustment Plug	Pirinç Brass
7	Pervane Çanağı Filtresi* Propeller Chamber Strainer	POM
8	Pervane Çanağı Propeller Chamber	ABS,Paslanmaz Çelik ABS, Stainless Steel
9	Pervane Propeller	POM,Pas, Çelik,Safir Taşı, Feniit Mineral POM, Stainless Steel, Sapphire, Ferrit Magnet
10	Kayıt Grubu Çanağı Register Group Chamber	ABS, Safir Taşı ABS, Sapphire
11	Kayıt Grubu Register Group	ABS,Paslanmaz Çelik ABS, Stainless Steel
12	Cam Glass	PC veya Mineral PC or Mineral
13	Kaydırma Pulu Shifting Ring	ABS
14	Üst Gövde Upper Body	Pirinç Brass
15	Kapak Grubu Cover Group	ABS,Paslanmaz Çelik ABS, Stainless Steel
16	RF / M-Bus Modül RF / M-Bus Module	---
17	Pulse Çıkış Modülü Pulse Output Module	---

* Opsiyonel / Optional

Fig. 4c: Exploded view of water meters types KDM8, KDM9

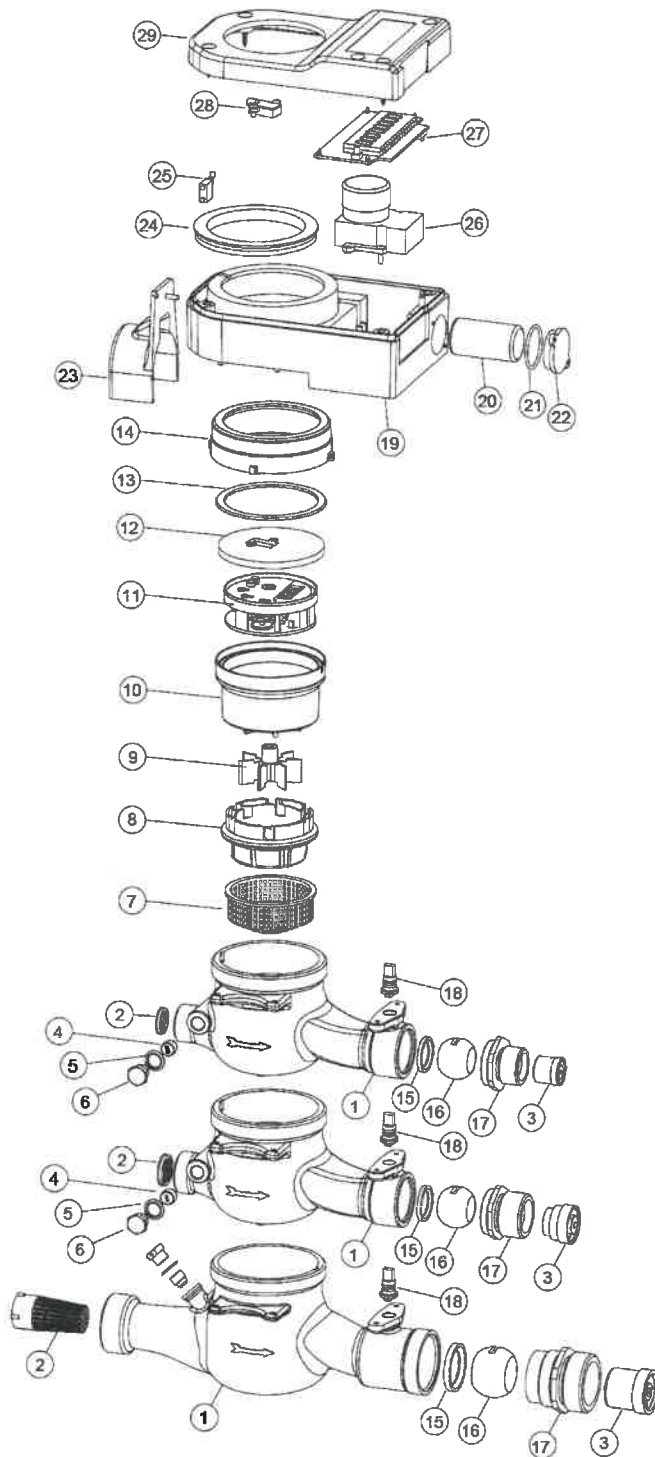




	Parça Adı Part Name	Malzeme Material
1	Alt Gövde Lower Body	Pirinç Brass
2	Giriş Filtresi Inlet Strainer	POM
3	Çek valf Non Return Valve	ABS, PVC, Paslanmaz Çelik ABS, PVC, Stainless Steel
4	Ayar Vidası Adjustment Screw	ABS
5	Ayar Tapa Contası Adjustment Plug Seal	ABS
6	Ayar Tapası Adjustment Plug	Pirinç Brass
7	Pervane Çanağı Filtresi* Propeller Chamber Strainer	POM
8	Pervane Çanağı Propeller Chamber	ABS, Paslanmaz Çelik ABS, Stainless Steel
9	Pervane Propeller	POM, Pas, Çelik, Safir Taşı, Ferrit Mikropul POM, Stal, Stel, Sapphire, Ferrit Magnet
10	Kayıt Grubu Çanağı Register Group Chamber	ABS, Safir Taşı ABS, Sapphire
11	Kayıt Grubu Register Group	ABS, Paslanmaz Çelik ABS, Stainless Steel
12	Cam Glass	PC veya Mineral PC or Mineral
13	Kaydırma Pulu Shifting Ring	ABS
14	Üst Gövde Upper Body	Pirinç Brass
15	Kapak Grubu Cover Group	ABS, Paslanmaz Çelik ABS, Stainless Steel
16	RF / M-Bus Modül RF / M-Bus Module	---
17	Pulse Çıkış Modülü Pulse Output Module	---
18	Üst Flanş Top Flange	Çelik Döküm Cast Iron
19	Civata Bolt	Paslanmaz Çelik Stainless Steel
20	Pul Rove	Paslanmaz Çelik Stainless Steel

* Opsiyonel / Optional

Fig. 4d: Exploded view of water meters types KDM10, KDM11, KDM12

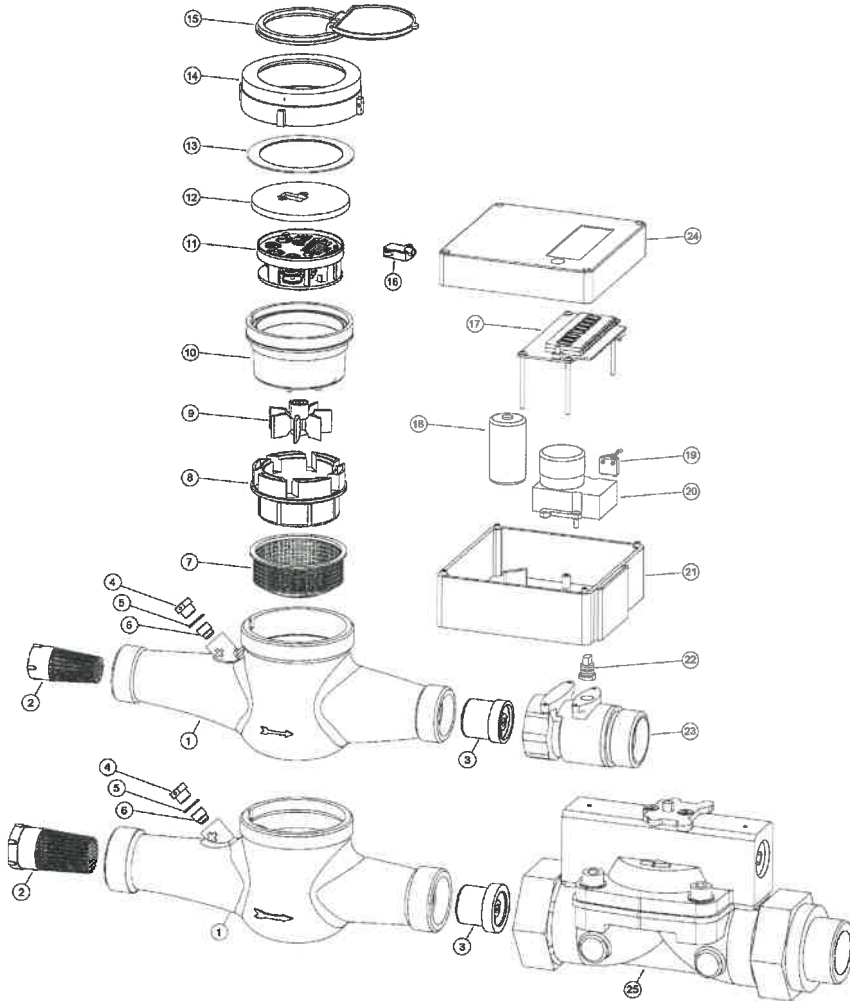


No	Parça Adı Part Name	Malzeme Material
1	Alt Gövde Lower Body	Pirinç Brass
2	Giriş Filtresi Inlet Strainer	POM
3	Çek valf Non Return Valve	ABS, PVC, Paslanmaz Çel. ABS, PVC, Stainless Steel
4	Ayar Vidası Adjustment Screw	ABS
5	Ayar Tapa Contası Adjustment Plug Seal	ABS
6	Ayar Tapası Adjustment Plug	Pirinç Brass
7	Pervane Çanağı Filtresi* Propeller Chamber Strainer	POM
8	Pervane Çanağı Propeller Chamber	ABS, Paslanmaz Çelik ABS, Stainless Steel
9	Pervane Propeller	PCM, Pas, Çel., Safir Taşı, Miknataç PCM, Sta. Steel, Sapphire, Ferret Magnet
10	Kayıt Grubu Çanağı Register Group Chamber	ABS, Safir Taşı ABS, Sapphire
11	Kayıt Grubu Register Group	ABS, Paslanmaz Çelik ABS, Stainless Steel
12	Cam Glass	PC veya Mineral PC or Mineral
13	Kaydırma Pulu Sliding Ring	ABS
14	Üst Gövde Upper Body	Pirinç Brass
15	Küre Teflonu Ball Teflon	Teflon Teflon
16	Küre Ball	Pirinç Brass
17	Küre Nipeli Ball Nipple	Pirinç Brass
18	Hamil Rotating Shaft	Pirinç Brass
19	Elektronik Devre Alt Kutusu Electronic Circuit Sub Box	ABS
20	Batarya Battery	---
21	Batarya Kapağı Oringi Battery Cover O-ring	PVC
22	Batarya Kapağı Battery Cover	ABS
23	Emniyet Kiti Safety Kit	ABS
24	Kutu Contası Box Gasket	PVC
25	Emniyet Butonu Safety Switch	---
26	Motor Engine	---
27	Elektronik Devre ve LCD Ekran Electronic Circuit and LCD Display	---
28	Manyetik Sensör Magnetic Sensor	---
29	Elektronik Devre Üst Kutusu Electronic Circuit Top Box	PC

* Opsiyonel / Optional

Fig. 4e: Exploded view of water meters types KDM2-M1, KDM5-M1, KDM7-M1, KDM8-M1 with prepayment system



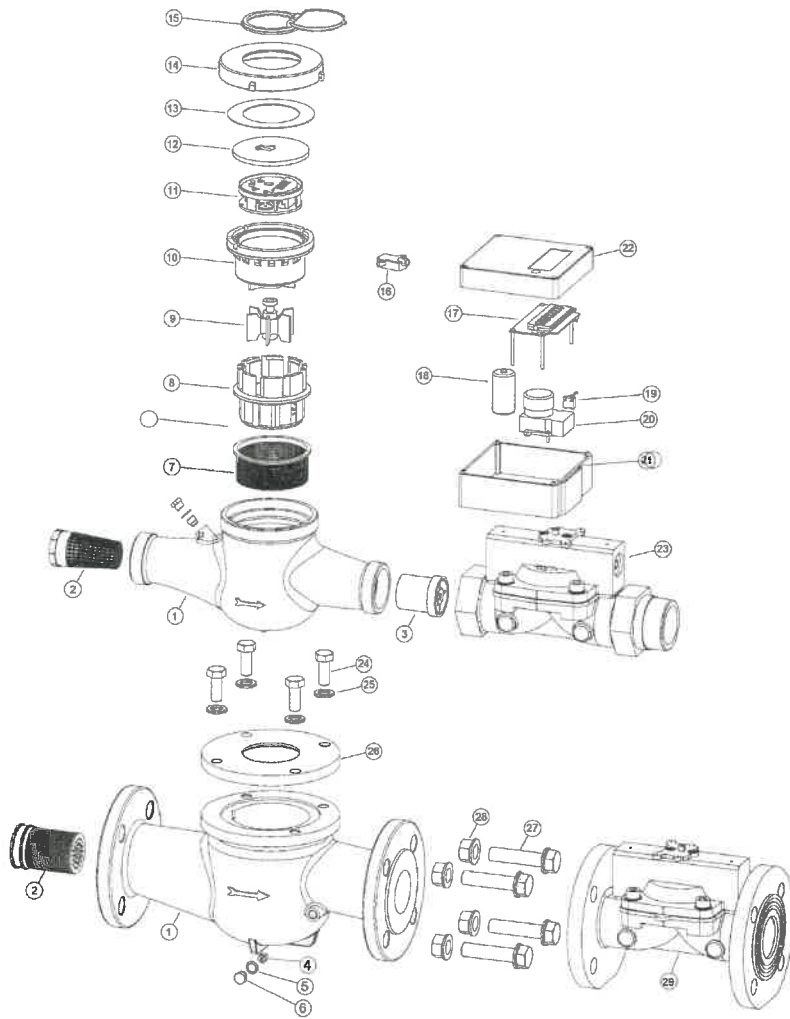


No	Parça Adı Part Name	Malzeme Material
1	Ait Gövde Lower Body	Pirinç Brass
2	Giriş Filtresi Inlet Strainer	PCM
3	Çek valf Non Return Valve	ABS, PVC, Paslanmaz Çel. ABS, PVC, Stainless Steel
4	Ayar Vidası Adjustment Cover	ABS
5	Ayar Tapa Contası Adjustment Plug Seal	ABS
6	Ayar Tapası Adjustment Plug	Pirinç Brass
7	Pervane Çanağı Filtresi* Propeller Chamber Strainer	PCM
8	Pervane Çanağı Propeller Chamber	ABS Paslanmaz Çelik ABS, Stainless Steel
9	Pervane Propeller	PCM, Pas Çel., Safir Taşı, Mikailite PCM, Sta. Steel, Sapphire, Ferrit Magnet
10	Kayıt Grubu Çanağı Register Group Chamber	ABS, Safir Taşı ABS, Sapphire
11	Kayıt Grubu Register Group	ABS Paslanmaz Çelik ABS, Stainless Steel
12	Cam Glass	PC veya Mineral PC or Mineral
13	Kaydırma Pulu Shifting Ring	ABS
14	Üst Gövde Upper Body	Pirinç Brass
15	Kapak Grubu Cover Group	ABS Paslanmaz Çelik ABS, Stainless Steel
16	Manyetik Sensör Magnetic Sensor	---
17	Elektronik Devre ve LCD Ekran Electronic Circuit and LCD Display	---
18	Batarya Battery	---
19	Emniyet Butonu Safety Switch	---
20	Motor Engine	---
21	Elektronik Devre Alt Kutusu Electronic Circuit Sub Box	ABS
22	Hamili Rotating Shaft	Pirinç Brass
23	Küresel Vana Ball Valve	Pirinç Brass
24	Elektronik Devre Üst Kutusu Electronic Circuit Top Box	ABS
26	Diyaframlı Vana Diaphragm Valve	Çelik Doküm Cast Iron

* Opsiyonel / Optional

Fig. 4f: Exploded view of water meters types KDM8-M2, KDM9-M1
with prepayment system





No	Parça Adı Part Name	Malzeme Material
1	Alt Gövde Lower Body	Pirinç Brass
2	Giriş Filtresi Inlet Strainer	POM
3	Çek valf Non Return Valve	ABS, PVC, Paslanmaz Çel. ABS, PVC, Stainless Steel
4	Ayar Vidası Adjustment Screw	ABS
5	Ayar Tapa Contası Adjustment Plug Seal	ABS
6	Ayar Tapası Adjustment Plug	Pirinç Brass
7	Pervane Çanağı Filtresi* Propeller Chamber Strainer	POM
8	Pervane Çanağı Propeller Chamber	ABS, Paslanmaz Çelik
9	Pervane Propeller	POM, Pas, Çel., Safır Taşı, Mıvınatıs POM, Sta. Steel, Sapphire, Ferrit Magnet
10	Kayıt Grubu Çanağı Register Group Chamber	ABS, Safır Taşı ABS, Sapphire
11	Kayıt Grubu Register Group	ABS, Paslanmaz Çelik ABS, Stainless Steel
12	Cam Glass	PC veya Mineral PC or Mineral
13	Kayıt Pulu Shifting Ring	ABS
14	Üst Gövde Upper Body	Pirinç Brass
15	Kapak Grubu Cover Group	ABS, Paslanmaz Çelik ABS, Stainless Steel
16	Manyetik Sensör Magnetic Sensor	---
17	Elektronik Devre ve LCD Ekran Electronic Circuit and LCD Display	---
18	Batarya Battery	---
19	Emniyet Butonu Safety Switch	---
20	Motor Engine	---
21	Elektronik Devre Alt Kutusu Electronic Circuit Sub Box	ABS
22	Elektronik Devre Üst Kutusu Electronic Circuit Top Box	ABS
23	Diyaframlı Vana Diaphragm Valve	Çelik Döküm Cast iron
24	Civata Bolt	Paslanmaz Çelik Stainless Steel
25	Pul Rove	Paslanmaz Çelik Stainless Steel
26	Üst Flanş Top Flange	Çelik Döküm Cast iron
27	Civata Bolt	Paslanmaz Çelik Stainless Steel
28	Somun Bolt Nut	Paslanmaz Çelik Stainless Steel
29	Diyaframlı Vana Diaphragm Valve	Çelik Döküm Cast iron

* Opsiyonel / Optional

Fig. 4g: Exploded view of water meters types KDM10-M1, KDM12-M1 with prepayment system





Fig. 5: Marking of water meters series KDM...

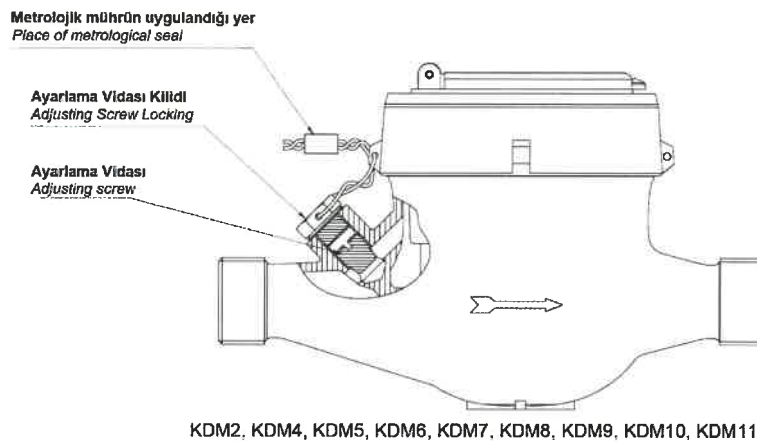
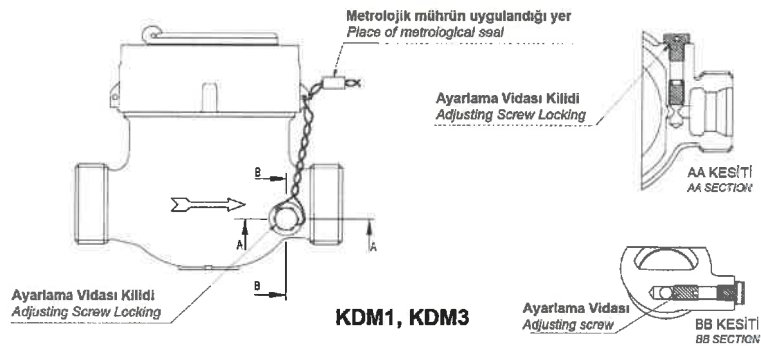


Fig. 6a: Sealing of water meters series KDM1 – KDM11

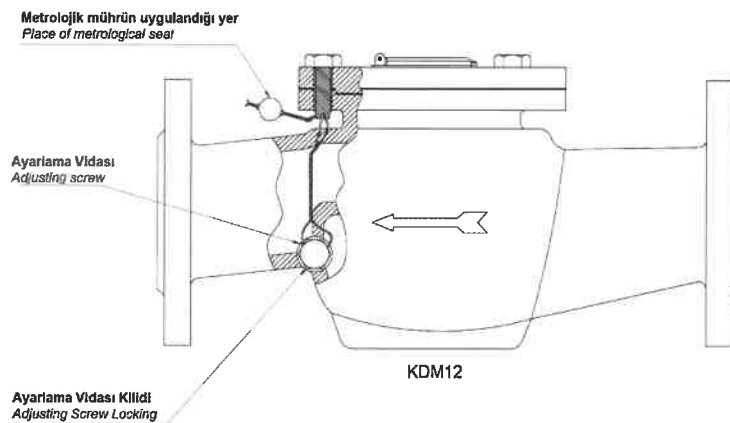


Fig. 6b: Sealing of water meters series KDM12



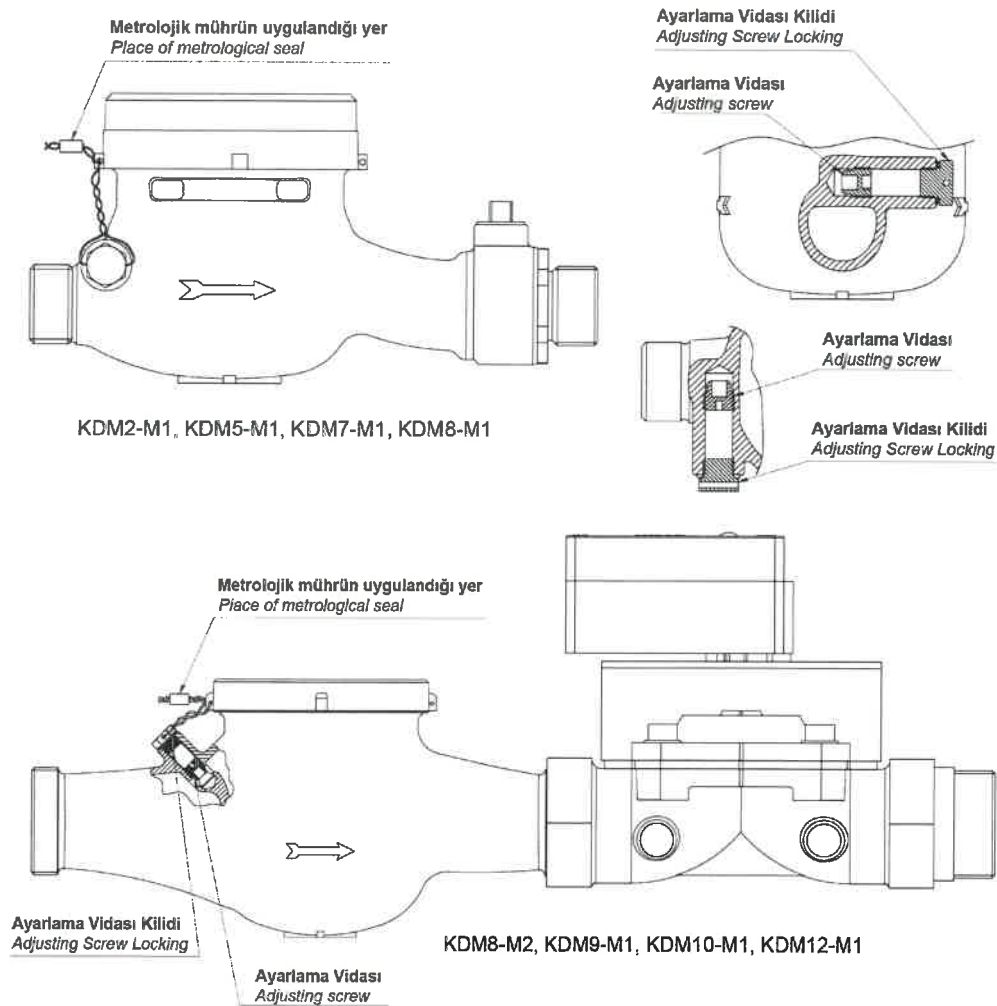


Fig. 6c: Sealing of water meters series KDM...M1, M2

12. History of certificate No. SK 17-115 MI-001

Rev.	Date of issue	Subject of amendment / extension
0	2017-01-12	First issue
1	2021-02-04	Add water meters with prepayment system, types: KDM2-M1, KDM5-M1, KDM7-M1, KDM8-M1, KDM8-M2, KDM9-M1, KDM10-M1, KDM12-M1 Add new lengths for: KDM1-L115, KDM2-L170/190, KDM3-L115
2	2024-02-12	Add new lengths for: KDM4-L165/170/175, KDM5-L200/220, KDM7-L165/170/175/200/220.

