



TÜRK STANDARDLARI ENSTİTÜSÜ
TURKISH STANDARDS INSTITUTION



EU - TYPE EXAMINATION CERTIFICATE

2014/32/EU Measuring Instruments Directive

Certificate No : 1783-MID-010

In accordance with Measuring Instruments Directive dated February 26, 2014 and numbered 2014/32/EU of the European Union Parliament and "Ölçü Aletleri Yönetmeliği (Measuring Instruments Directive)" numbered 2014/32/AB which was published in Official Journal of Turkish Republic dated 29.06.2016 and numbered 29757:

Manufacturer : BAYLAN ÖLÇÜ ALETLERİ SANAYİ VE TİCARET A.Ş.

Atatürk Organize San. Böl. 10032. Sokak No:16 Çiğli / İZMİR

Essential requirements Applied : MID Annex I and Annex MI-001

Name of Measuring Instrument : Water meter

Type : KK

Environmental Classes

- Climatic -10 °C / +55 °C
- Mechanic M1 / O
- Electromagnetic E2

Project Number : 858-16/17301, 974-16/385333

**Comformity Assessment Report : 858-MID-010/2016-01, 858-MID-010/2017-01
858-MID-010/2020-01, 858-MID-010/2020-02
858-MID-010/2021-01, 858-MID-010/2022-01
858-MID-010/2022-02, 858-MID-010/2022-03
858-MID-010/2023-01, 858-MID-010/2024-01**

Date of issue : 30.09.2024 (First Issue Date: 29.03.2016)

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Dr. Alkan HAFÇI
Director of Directives
Ankara, 30.09.2024 Rev.12

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This certificate is only valid with annex and TSE-Notified Body 1783 seal. Bu belge hiçbir suretle değiştirilemez, kısmen veya tamamen zorlaştıracak şekilde çoğaltılamaz, kızıltı ve silinti yapılamaz. This certificate cannot be altered, partially duplicated or created for misunderstanding.



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1. General Information about Water Meter

1.1 Designation

Cold Water Meter(s) suitable for use in dwellings, commercial light industry and heavy industry; for indoor and outdoor, designed for measuring clean cold water volume, KK model, dry type, single jet measurement principle, can be connected horizontal or vertical position.

1.2 Design

Essential Parts of the Meter

- Calculator
- Lower Body
- Upper Body

1.3 Metrological Characteristic

Measurement of the water volume passing through

1.4 Software

Not applicable

1.5 Supplementary equipments

Not applicable

1.6 Equipments out of the scope of MID

Pre – paid device;

Automatic meter reading system

Data output through module RF, MBUS, Modbus, GPRS or SMART card;

Pulse output (optional).

Coupling, Check Valve





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2. Technical and metrological data

Table 1

Tip /Type	-	KK-1				KK-1P			
Anma Çapı DN /Nominal Diameter	mm	15		20		15		20	
Aşırı Yükleme Debisi Q ₄ /Overload Flowrate	m³/h	3,125							
Sürekli Debi Q ₃ /Permanent Flowrate	m³/h	2,5							
Minimum Debi Q ₁ /Minimum Flowrate	m³/h	0,0156	0,03125	0,0156	0,03125	0,0156	0,03125	0,0156	0,03125
Geçiş Debisi Q ₂ /Transitional Flowrate	m³/h	0,025	0,050	0,025	0,050	0,025	0,050	0,025	0,050
Ölçme Aralığı Q ₃ /Q ₁ /Ratio	-	160 ^a	80 ^b	160 ^a	80 ^b	160 ^a	80 ^b	160 ^a	80 ^b
Bağlantı Şekli /Connection Position	-	H	V	H	V	H	V	H	V
Bağlantı Çapı (Flanş) /Connection Thread	mm	G ¾ B		G 1 B		G ¾ B		G 1 B	
Boy L /Construction Lenght	mm	110/115							
Genişlik B / Width	mm	79				85			
Toplam Sayaç Yüksekliği H / total Overall Meter Height	mm	84				86			
Açıklama /Description	-	a) Covers R125, R100, R80, R63, R50, R40 . b) Covers R63, R50, R40.							

Table 2

Tip /Type	-	KK-2						
Anma Çapı DN /Nominal Diameter	mm	15			20			
Aşırı Yükleme Debisi Q ₄ /Overload Flowrate	m ³ /h	3,125			3,125		5	
Sürekli Debi Q ₃ /Permanent Flowrate	m ³ /h	2,5			2,5		4	
Minimum Debi Q ₁ /Minimum Flowrate	m ³ /h	0,0125		0,03125	0,0125	0,03125	0,016	0,05
Geçiş Debisi Q ₂ /Transitional Flowrate	m ³ /h	0,020		0,050	0,020	0,050	0,0256	0,08
Ölçme Aralığı Q ₃ /Q ₁ /Ratio	-	200 ^a		80 ^b	200 ^a	80 ^b	250 ^c	80 ^b
Bağlantı Şekli /Connection Position	-	H		V	H	V	H	V
Bağlantı Çapı (Flanş) /Connection Thread	mm	G ¾ B			G 1 B			
Boy L /Construction Lenght	mm	110	115	110/115/130/145/165/170/190		110/115/130/165/190		
Genişlik B / Width	mm	78		79		79		
Toplam Sayaç Yüksekliği H / total Overall Meter Height	mm	86		86,7		86,7		
Açıklama /Description	-	a) Covers R160, R125, R100, R80, R63, R50, R40. b) Covers R63, R50, R40. c) Covers R200, R160, R125, R100, R80, R63, R50, R40.						



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Table 3

Tip /Type	-	KK-2P					
Anma Çapı DN /Nominal Diameter	mm	15		20			
Aşırı Yükleme Debisi Q ₄ /Overload Flowrate	m ³ /h	3,125		3,125		5	
Sürekli Debi Q ₃ /Permanent Flowrate	m ³ /h	2,5		2,5		4	
Minimum Debi Q ₁ /Minimum Flowrate	m ³ /h	0,0125	0,03125	0,0125	0,03125	0,02	0,05
Geçiş Debisi Q ₂ /Transitional Flowrate	m ³ /h	0,020	0,050	0,020	0,050	0,032	0,08
Ölçme Aralığı Q ₃ /Q ₁ /Ratio	-	200 ^a	80 ^b	200 ^a	80 ^b	200 ^a	80 ^b
Bağlantı Şekli /Connection Position	-	H	V	H	V	H	V
Bağlantı Çapı (Flanş) /Connection Thread	mm	G ¾ B		G 1 B			
Boy L /Construction Lenght	mm	110/115		190			
Genişlik B / Width	mm	78		85			
Toplam Sayaç Yüksekliği H / total Overall Meter Height	mm	85		86			
Açıklama /Description	-	a) Covers R160, R125, R100, R80, R63, R50, R40. b) Covers R63, R50, R40.					

Table 4

Tip /Type	-	KK-2M							
Anma Çapı DN /Nominal Diameter	mm	15				20			
Aşırı Yükleme Debisi Q ₄ /Overload Flowrate	m³/h	2		3,125		2		3,125	
Sürekli Debi Q ₃ /Permanent Flowrate	m³/h	1,6		2,5		1,6		2,5	
Minimum Debi Q ₁ /Minimum Flowrate	m³/h	0,01	0,04	0,0125	0,05	0,01	0,04	0,0125	0,05
Geçiş Debisi Q ₂ /Transitional Flowrate	m³/h	0,016	0,064	0,02	0,08	0,016	0,064	0,02	0,08
Ölçme Aralığı Q ₃ /Q ₁ /Ratio	-	160 ^b	40	200 ^a	50 ^c	160 ^b	40	200 ^a	50 ^c
Bağlantı Şekli /Connection Position	-	H	V	H	V	H	V	H	V
Bağlantı Çapı (Flanş) /Connection Thread	mm	G ¾ B				G 1 B			
Boy L /Construction Length	mm	110/115/130/145/165/170/190				110/115/130/165/190			
Genişlik B / Width	mm	81							
Toplam Sayaç Yüksekliği H / total Overall Meter Height	mm	98 (for 110/115/130/145 length) 96 (for 165/170/190 length)							
Açıklama /Description	-	a) Covers R160, R125, R100, R80, R63, R50, R40. b) Covers R125, R100, R80, R63, R50, R40. c) Covers R40.							



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Table 5

Tip /Type	-	KK-10		KK-11		KK-12			
Anma Çapı DN /Nominal Diameter	mm	15		20		15		20	
Aşırı Yükleme Debisi Q ₄ /Overload Flowrate	m ³ /h	3,125							
Sürekli Debi Q ₃ /Permanent Flowrate	m ³ /h	2,5							
Minimum Debi Q ₁ /Minimum Flowrate	m ³ /h	0,0156	0,03125	0,0156	0,03125	0,0125	0,03125	0,0125	0,03125
Geçiş Debisi Q ₂ /Transitional Flowrate	m ³ /h	0,025	0,050	0,025	0,050	0,020	0,050	0,020	0,050
Ölçme Aralığı Q ₃ /Q ₁ /Ratio	-	160 ^a	80 ^b	160 ^a	80 ^b	200 ^c	80 ^b	200 ^c	80 ^b
Bağlantı Şekli /Connection Position	-	H	V	H	V	H	V	H	V
Bağlantı Çapı (Flanş) /Connection Thread	mm	G ¾ B		G 1 B		G ¾ B		G 1 B	
Boy L /Construction Lenght	mm	165/170		130		110/115			
Genişlik B / Width	mm	82,5		74,5		74,5			
Toplam Sayaç Yüksekliği H / total Overall Meter Height	mm	97,8		84,5		84,7			
Açıklama /Description	-	a) Covers R125, R100, R80, R63, R50, R40 . b) Covers R63, R50, R40. c) Covers R160, R125, R100, R80, R63, R50, R40.							

Table 6

Tip /Type	-	KK-13					
Anma Çapı DN /Nominal Diameter	mm	15		20		20	
Aşırı Yükleme Debisi Q ₄ /Overload Flowrate	m ³ /h	3,125				5	
Sürekli Debi Q ₃ /Permanent Flowrate	m ³ /h	2,5				4	
Minimum Debi Q ₁ /Minimum Flowrate	m ³ /h	0,0156	0,03125	0,0156	0,03125	0,016	0,03125
Geçiş Debisi Q ₂ /Transitional Flowrate	m ³ /h	0,025	0,050	0,025	0,050	0,0256	0,050
Ölçme Aralığı Q ₃ /Q ₁ /Ratio	-	160 ^a	80 ^b	160 ^a	80 ^b	250 ^c	80 ^b
Bağlantı Şekli /Connection Position	-	H	V	H	V	H	V
Bağlantı Çapı (Flanş) /Connection Thread	mm	G ¾ B		G 1 B		G 1 B	
Boy L /Construction Lenght	mm	110/115/165/170		110/115/190		190	
Genişlik B / Width	mm	95		95		95	
Toplam Sayaç Yüksekliği H / total Overall Meter Height	mm	106,5		106,5		106,5	
Açıklama /Description	-	a) Covers R125, R100, R80, R63, R50, R40 b) Covers R63, R50, R40 c) Covers R200, R160, R125, R100, R80, R63, R50, R40					



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Table 7

Tip /Type	-	KK-15	KK-16	KK-17	KK-29			
Anma Çapı DN /Nominal Diameter	mm	25	32	40	15/20		20	
Aşırı Yükleme Debisi Q ₄ /Overload Flowrate	m ³ /h	7,875	12,5	20	3,125		5	
Sürekli Debi Q ₃ /Permanent Flowrate	m ³ /h	6,3	10	16	2,5		4	
Minimum Debi Q ₁ /Minimum Flowrate	m ³ /h	0,0252	0,04	0,064	0,0125	0,0397	0,020	0,05
Geçiş Debisi Q ₂ /Transitional Flowrate	m ³ /h	0,0403	0,064	0,1024	0,020	0,0635	0,032	0,08
Ölçme Aralığı Q ₃ /Q ₁ /Ratio	-	250 ^a	250 ^a	250 ^a	200 ^b	63 ^c	200 ^b	80 ^d
Bağlantı Şekli /Connection Position	-	H	H	H	H	V	H	V
Bağlantı Çapı (Flanş) /Connection Thread	mm	G 1 ¼ B	G 1 ½ B	G 2 B	G ¾ B / G 1 B		G 1 B	
Boy L /Construction Lenght	mm	260		300	110		130	
Genişlik B / Width	mm	95			78			
Toplam Sayaç Yüksekliği H / total Overall Meter Height	mm	108		119	82			
Açıklama /Description	-	a) Covers R200, R160, R125, R100, R80, R63, R50, R40. b) Covers R160, R125, R100, R80, R63, R50, R40. c) Covers R50, R40. d) Covers R63, R50, R40.						

Table 8

Tip /Type	-	KK-14				KK-29P	
Anma Çapı DN /Nominal Diameter	mm	15	20			15	
Aşırı Yükleme Debisi Q ₄ /Overload Flowrate	m³/h	3,125		5		3,125	
Sürekli Debi Q ₃ /Permanent Flowrate	m³/h	2,5		4		2,5	
Minimum Debi Q ₁ /Minimum Flowrate	m³/h	0,0125	0,03125	0,0125	0,0125	0,0125	0,03125
Geçiş Debisi Q ₂ /Transitional Flowrate	m³/h	0,020	0,050	0,020	0,020	0,020	0,050
Ölçme Aralığı Q ₃ /Q ₁ /Ratio	-	200 ^a	80 ^b	200 ^a	200 ^a	200 ^a	80 ^b
Bağlantı Şekli /Connection Position	-	H	V	H	H	H	V
Bağlantı Çapı (Flanş) /Connection Thread	mm	G ¾ B		G ¾ B		G ¾ B	
Boy L /Construction Lenght	mm	110/115/130/145				110/115	
Genişlik B / Width	mm	74				81	
Toplam Sayaç Yüksekliği H / total Overall Meter Height	mm	85				82	
Açıklama /Description	-	a) Covers R160, R125, R100, R80, R63, R50, R40 b) Covers R63, R50, R40.					



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Common Features

Sıcaklık Sınıfı T /Temperature Class	°C	T50
Maksimum Çalışma Basıncı /Maximum Working Pressure	bar	16
Üst Ölçme Alanında Maksimum İzin Verilen Hata $Q_2 \leq Q \leq Q_4$ / Maximum Permissible Error in upper flow rates	%	± 2 (For Class 1 ± 1) (≤ 30 °C) ± 3 (≥ 30 °C)
Alt Ölçme Alanında Maksimum İzin Verilen Hata $Q_1 \leq Q < Q_2$ / Maximum Permissible Error in lower flow rates	%	± 5 (For Class 1 ± 3)
Skala Aralığı /Scale Interval	-	0.00005
Gösterge Kapasitesi /Capacity of calculator	m3	9999 / 99999 / 99999,99 / 99999,999
Çevresel Sınıf /Environment Class	-	M1 / O
Elektromanyetik Sınıf /Electromagnetic Class	-	E2
Bağlantı koşulları /Installation Conditions	-	U0-D0
Sınıf/Class	-	1 / 2
Basınç Kaybı Sınıfı /Pressure Loss Class	-	ΔP_{63}
Ters Akış Uygunluğu /Reverse Flow		Meter is not designed to measure reverse flow

3. Marking

The following data shall be marked on the water meter

- manufacturer's name and/or registered trademark,
- type of water meter,
- year of production and serial number,
- continuous flowrate Q_3 and Q_3/Q_1 ratio (R),
- maximum operating pressure,
- connection shape,
- temprature class,
- EU-type examination certificate number,
- conformity marking according to the regulation in regards to the measuring intruments

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

3.1 Registered trademark of the manufacturer

The manufacturer uses the following figure inscription commercial trademark on the water meters

BAYLAN



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4. Sealing

The sealing wire and stamp is used in order to prevent unauthorized intervention to water meter, adjustment screw and the lower body to upper body connection. Unauthorized intervention to the adjustment screw, the lower body to upper body connection is not possible without damaging that seal.

First alternative the plastic seal which plugs into the adjustment screw press the upper body. Unauthorized intervention to the adjustment screw, the lower body to upper body connection is prevented without damaging this seal.

Second alternative the claw surface lock system of the plastic upper body is used in order to prevent unauthorized intervention to water meter and adjustment device.

Third alternative the twist seal which plugs into the adjustment screw press the upper body. Unauthorized intervention to the adjustment screw, the lower body to upper body connection is prevented without damaging this seal.

5. Terms of Production, putting into use and usage

5.1 Production

- no special terms identified for production

5.2 Putting into use

- water meters must be installed in the plumbing as mentioned in installation instructions and/or user's manual of the manufacturer.
- no terms identified for straight pipe lengths at the inlet and exit of the meter, flow profile class of the meter was determined according to EN ISO 4064:2014.
- type tests of the meter were carried out according to EN ISO 4064:2014 and OILM R 49.

5.3 Requirements for usage

- must be used in accordance with the terms of the user's manual given by the manufacturer.

6. Documentation used within the scope of assessment

- Inspection and testing report dated 29.03.2016 and numbered 858-MID-010/2016-01, issued by TSE
- Inspection and testing report dated 11.07.2016-23.09.2016 and numbered 2916-001, issued by Baylan Ölçü Aletleri Sanayi ve Ticaret Ltd. Şti.
- Inspection and testing report dated 13.05.2017 and numbered 858-MID-010/2017-01, issued by TSE
- Test Report dated 08.01.2020 and numbered 120010801, issued by Baylan Test Laboratory.
- Test Report dated 22.03.2020 and numbered 120032201, issued by Baylan Test Laboratory.
- Test Report dated 24.09.2021 and numbered 121092401, issued by Baylan Test Laboratory.



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- Test Report dated 10.01.2022 and numbered 122011001, issued by Baylan Test Laboratory.
- Test Report dated 04.02.2022 and numbered 122020401, issued by Baylan Test Laboratory.
- Test Report dated 16.08.2022 and numbered 122081601, issued by Baylan Test Laboratory.
- Test Report dated 29.05.2023 and numbered 123052901, issued by Baylan Test Laboratory.
- Test Report dated 14.05.2024 and numbered 124051401, issued by Baylan Test Laboratory.
- Manufacturer's technical file, technical drawings, component lists

7. Standards and regulations used within the scope of assessment

7.1 Regulations, harmonised standards and mandatory normative documents

- Measuring Instruments Directive numbered 2014/32/AB published in the Official Journal dated 29.06.2016 and number 29757
- EN ISO 4064-1:2017
- EN ISO 4064-2:2014
- EN ISO 4064-3:2014
- EN ISO 4064-4:2017
- EN ISO 4064-5:2017
- OIML R 49-1:2013
- OIML R 49-2:2013

7.2 Reference documents

- WELMEC Guide 11.1
- WELMEC Guide 11.3

8. Conclusion

Structural, technical and metrological parameters of the meters which are going to be put into market must be compatible with the documentation submitted with this EU-Type Examination Certificate. The tested meters meet the requirements of the Measuring Instruments Directive numbered 2014/32/EU of the European Union Parliament and the Council and the Measuring Instruments Directive numbered 2014/32/AB published in the Official Journal dated 29.06.2016 and number 29757 of Turkish Republic.

9. Annexes

Annex-1: Illustrative pictures of the water meter

Annex-2: Main Dimensions of the water meter

Annex-3: Demonstration of Sealing

Annex-4: Marking

Annex-5: Revision Page



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Annex-1:

KK-1 DN15 110 & 115mm



KK-1 DN20 110 & 115mm



KK-1P DN15 110 & 115mm



KK-1P DN20 110 & 115mm





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KK-2 DN15 110 & 115mm



KK-2 DN15 130mm



KK-2 DN15 145mm



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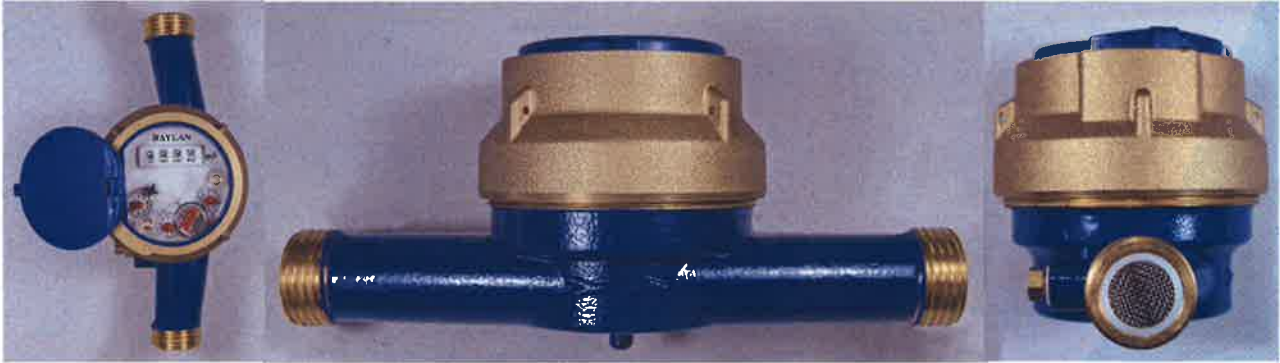
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KK-2 DN15 165 & 170mm



KK-2 DN15 190mm



KK-2 DN20 110/115mm



KK-2 DN20 130mm



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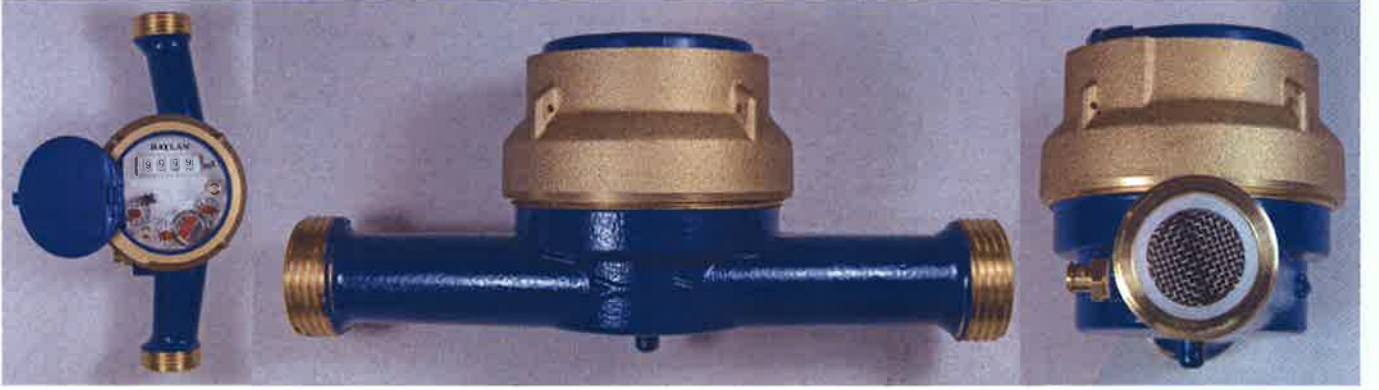
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Certificate No:1783-MID-010/Rev. 12

KK-2 DN20 165mm



KK-2 DN20 190mm



KK-2P DN15 110/115mm



KK-2P DN20 190mm





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KK-2M DN15 110/115mm.



KK-2M DN15 130mm.



KK-2M DN15 145mm.



KK-2M DN15 165/170mm.



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KK-2M DN15 190mm.



KK-2M DN20 110/115mm.



KK-2M DN20 130mm.



KK-2M DN20 165mm.



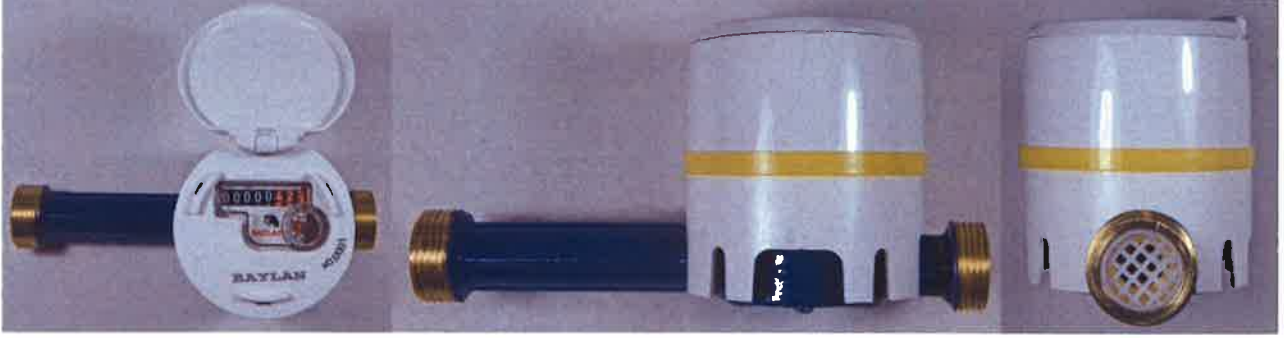


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KK-2M DN15 190mm.



KK-10 DN15 165 & 170mm



KK-11 DN20 130mm



KK-12 DN15 110 & 115mm



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Certificate No:1783-MID-010/Rev. 12

KK-12 DN20 110 & 115mm



KK-13 DN15 110 & 115mm



KK-13 DN15 165 & 170mm



KK-13 DN20 110 & 115mm





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KK-13 DN20 190mm



KK-14 DN20 110 & 115mm



KK-14 DN20 130mm



KK-14 DN20 145mm



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KK-14 DN15 110 & 115mm



KK-14 DN15 130mm



KK-14 DN15 145mm



KK-15





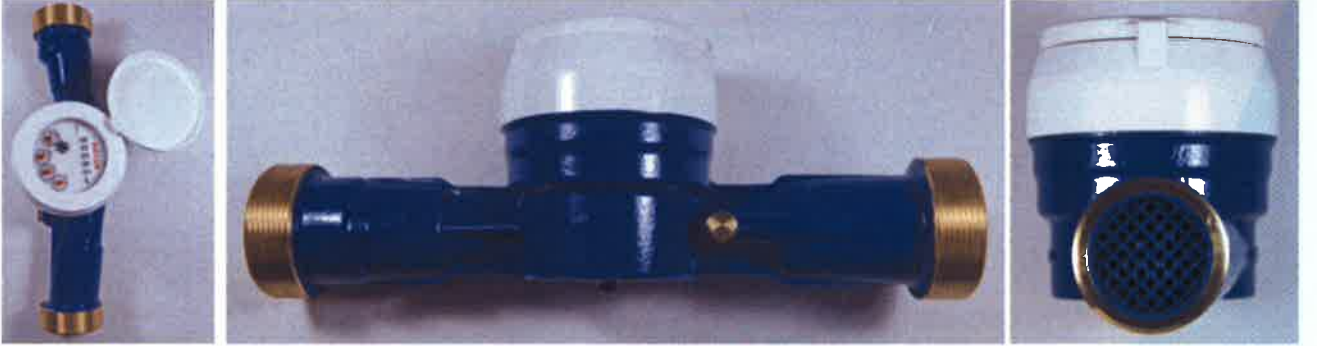
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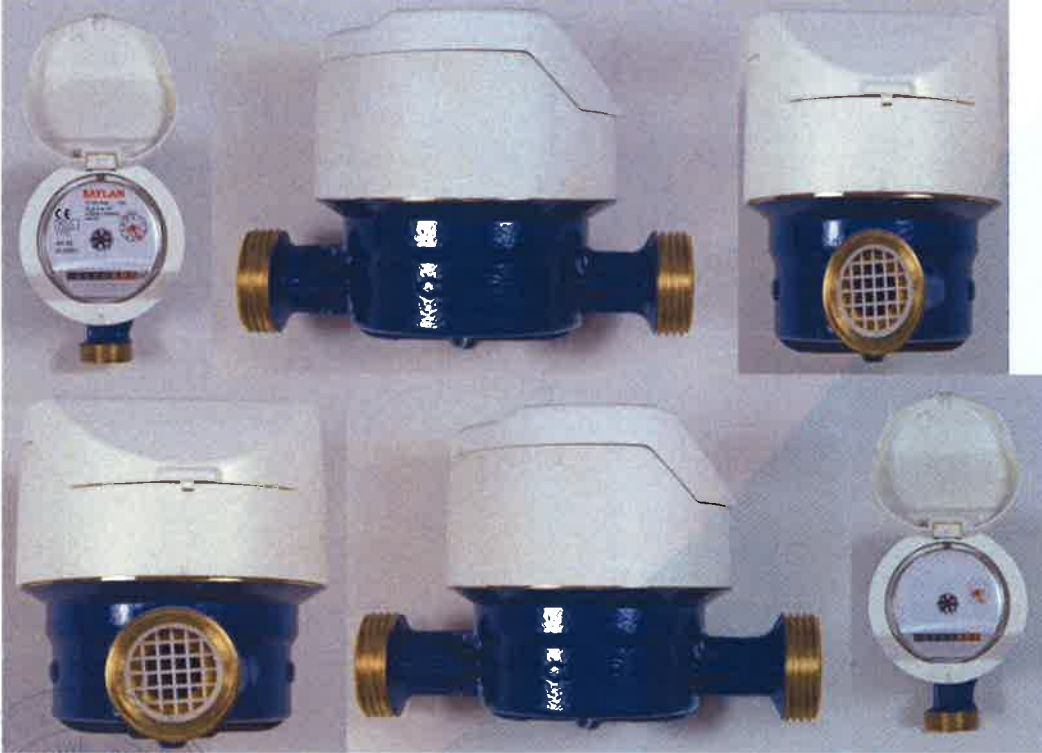
KK-16



KK-17



KK-29 (DN15-DN20)





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KK-29P DN15 110/115mm



Illustrative of water meter



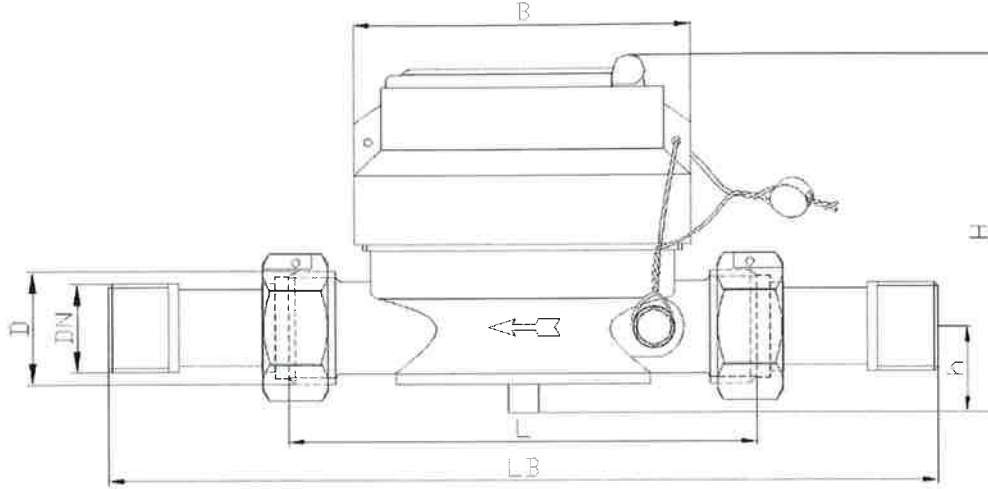


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Annex-2:



DIMENSIONS – ÖLÇÜLER KK-1				
Connection Pipe Diameter (mm) – DN Sayaç Çapı	15		20	
Connection Thread – D Bağlantı Çapı	G ¾ B		G 1 B	
Meter Length (mm) – L Sayaç Uzunluğu	110	115	110	115
Length with connections (mm) – LB Rakorlarla Beraber Uzunluk	190	195	190	195
Total Overall Meter Height (mm) – H Toplam sayaç Yüksekliği	84			
Axis Height (mm) – h Merkez Yüksekliği	20			
Width (mm) – B Sayaç Genişliği	79			

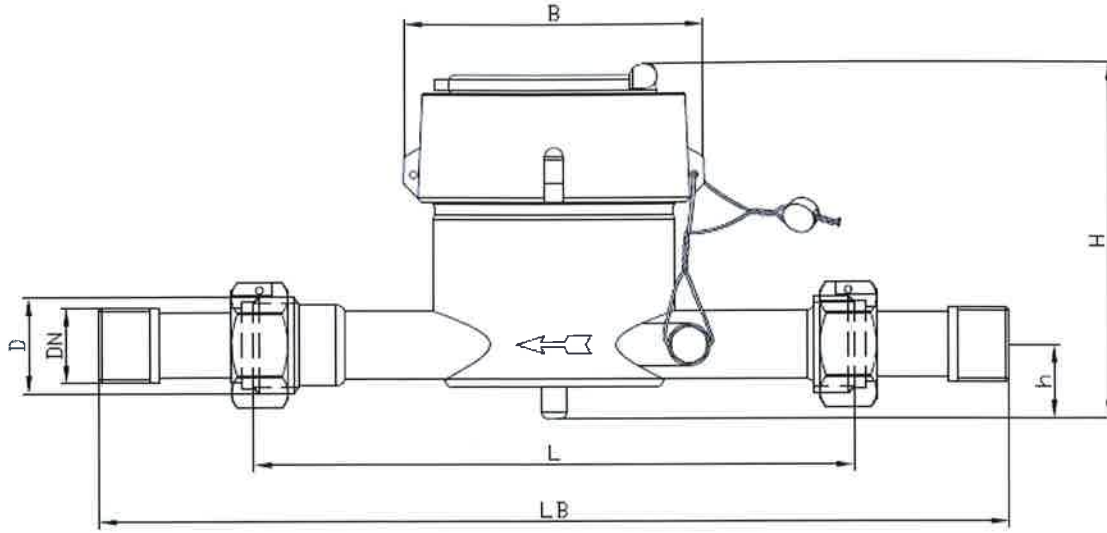
DIMENSIONS – ÖLÇÜLER KK-1P				
Connection Pipe Diameter (mm) – DN Sayaç Çapı	15		20	
Connection Thread – D Bağlantı Çapı	G ¾ B		G 1 B	
Meter Length (mm) – L Sayaç Uzunluğu	110	115	110	115
Length with connections (mm) – LB Rakorlarla Beraber Uzunluk	190	195	190	195
Total Overall Meter Height (mm) – H Toplam sayaç Yüksekliği	86			
Axis Height (mm) – h Merkez Yüksekliği	20			
Width (mm) – B Sayaç Genişliği	85			



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DIMENSIONS – ÖLÇÜLER KK-2									
Connection Pipe Diameter (mm) – DN Sayaç Çapı	15 (8tambur/8drums)			15 (5tambur/5drums)					
Connection Thread – D Bağlantı Çapı	G ¾ B								
Meter Length (mm) – L Sayaç Uzunluğu	110	115	110	115	130	145	165	170	190
Length with connections (mm) – LB Rakorlarla Beraber Uzunluk	190	195	190	195	210	225	245	250	270
Total Overall Meter Height (mm) – H Toplam sayaç Yüksekliği	86			86,7					
Axis Height (mm) – h Merkez Yüksekliği	17			20,6					
Width (mm) – B Sayaç Genişliği	78			79					

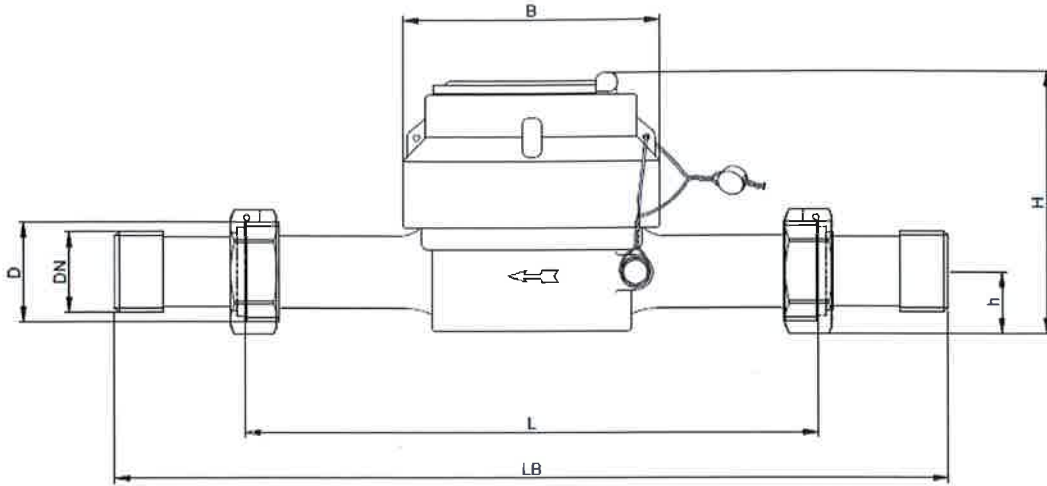
DIMENSIONS – ÖLÇÜLER KK-2					
Connection Pipe Diameter (mm) – DN Sayaç Çapı	20				
Connection Thread – D Bağlantı Çapı	G 1 B				
Meter Length (mm) – L Sayaç Uzunluğu	110	115	130	165	190
Length with connections (mm) – LB Rakorlarla Beraber Uzunluk	190	195	210	245	270
Total Overall Meter Height (mm) – H Toplam sayaç Yüksekliği	86,7				
Axis Height (mm) – h Merkez Yüksekliği	20,6				
Width (mm) – B Sayaç Genişliği	79				



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DIMENSIONS – ÖLÇÜLER KK-2P

Connection Pipe Diameter (mm) – DN <i>Sayaç Çapı</i>	15	20
Connection Thread – D <i>Bağlantı Çapı</i>	G ¾ B	G 1 B
Meter Length (mm) – L <i>Sayaç Uzunluğu</i>	110/115	190
Length with connections (mm) – LB <i>Rakorlarla Beraber Uzunluk</i>	190/195	270
Total Overall Meter Height (mm) – H <i>Toplam sayaç Yüksekliği</i>	85	86
Axis Height (mm) – h <i>Merkez Yüksekliği</i>	15,8	19,55
Width (mm) – B <i>Sayaç Genişliği</i>	78	85

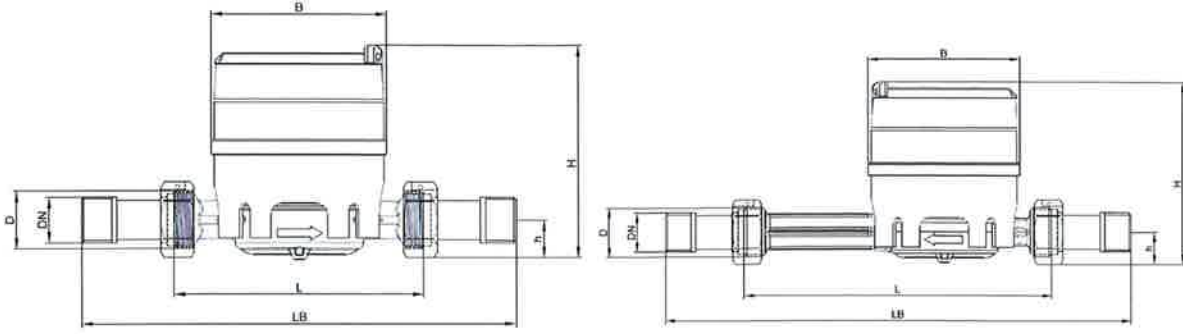




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DIMENSIONS – ÖLÇÜLER KK-2M

Connection Pipe Diameter (mm) – DN <i>Sayaç Çapı</i>	15						
Connection Thread – D <i>Bağlantı Çapı</i>	G ¾ B						
Meter Length (mm) – L <i>Sayaç Uzunluğu</i>	110	115	130	145	165	170	190
Length with connections (mm) – LB <i>Rakorlarla Beraber Uzunluk</i>	190	195	210	225	245	250	270
Total Overall Meter Height (mm) – H <i>Toplam sayaç Yüksekliği</i>	98				96		
Axis Height (mm) – h <i>Merkez Yüksekliği</i>	18,3				16,4		
Width (mm) – B <i>Sayaç Genişliği</i>	81						

DIMENSIONS – ÖLÇÜLER KK-2M

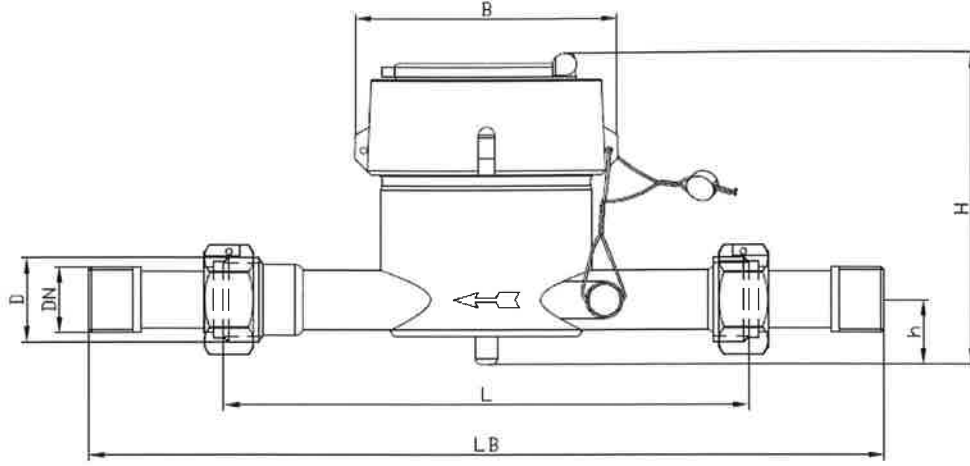
Connection Pipe Diameter (mm) – DN Sayaç Çapı	20				
Connection Thread – D Bağlantı Çapı	G 1 B				
Meter Length (mm) – L Sayaç Uzunluğu	110	115	130	165	190
Length with connections (mm) – LB Rakorlarla Beraber Uzunluk	190	195	210	245	270
Total Overall Meter Height (mm) – H Toplam sayaç Yüksekliği	98			96	
Axis Height (mm) – h Merkez Yüksekliği	18,3			16,4	
Width (mm) – B Sayaç Genişliği	81				



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DIMENSIONS – ÖLÇÜLER KK-10

Connection Pipe Diameter (mm) – DN <i>Sayaç Çapı</i>	15	
Connection Thread – D <i>Bağlantı Çapı</i>	G ¾ B	
Meter Length (mm) – L <i>Sayaç Uzunluğu</i>	165	170
Length with connections (mm) – LB <i>Rakorlarla Beraber Uzunluk</i>	245	250
Total Overall Meter Height (mm) – H <i>Toplam sayaç Yüksekliği</i>	97,8	
Axis Height (mm) – h <i>Merkez Yüksekliği</i>	20	
Width (mm) – B <i>Sayaç Genişliği</i>	82,5	

DIMENSIONS – ÖLÇÜLER KK-11

Connection Pipe Diameter (mm) – DN <i>Sayaç Çapı</i>	20	
Connection Thread – D <i>Bağlantı Çapı</i>	G 1 B	
Meter Length (mm) – L <i>Sayaç Uzunluğu</i>	130	
Length with connections (mm) – LB <i>Rakorlarla Beraber Uzunluk</i>	210	
Total Overall Meter Height (mm) – H <i>Toplam sayaç Yüksekliği</i>	84,5	
Axis Height (mm) – h <i>Merkez Yüksekliği</i>	17,5	
Width (mm) – B <i>Sayaç Genişliği</i>	74,5	

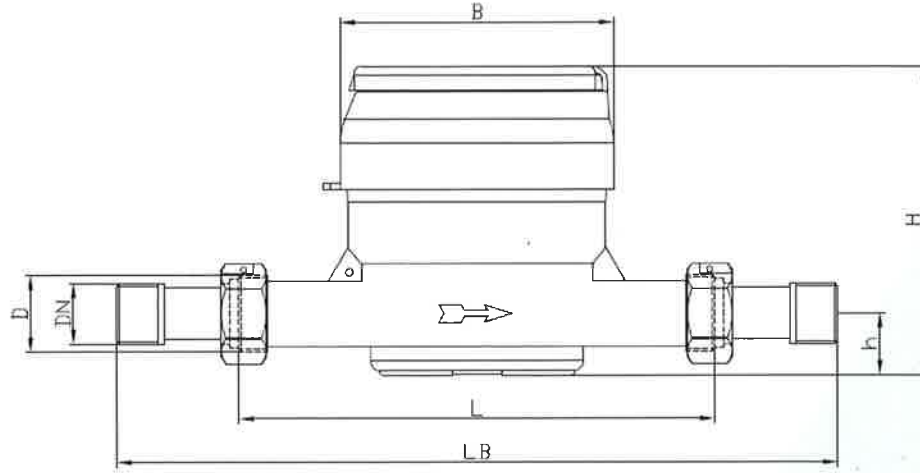


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DIMENSIONS – ÖLÇÜLER KK-12				
Connection Pipe Diameter (mm) – DN <i>Sayaç Çapı</i>	15		20	
Connection Thread – D <i>Bağlantı Çapı</i>	G ¾ B		G ¾ B	
Meter Length (mm) – L <i>Sayaç Uzunluğu</i>	110	115	110	115
Length with connections (mm) – LB <i>Rakorlarla Beraber Uzunluk</i>	190	195	190	195
Total Overall Meter Height (mm) – H <i>Toplam sayaç Yüksekliği</i>	84,7			
Axis Height (mm) – h <i>Merkez Yüksekliği</i>	17			
Width (mm) – B <i>Sayaç Genişliği</i>	74,5			



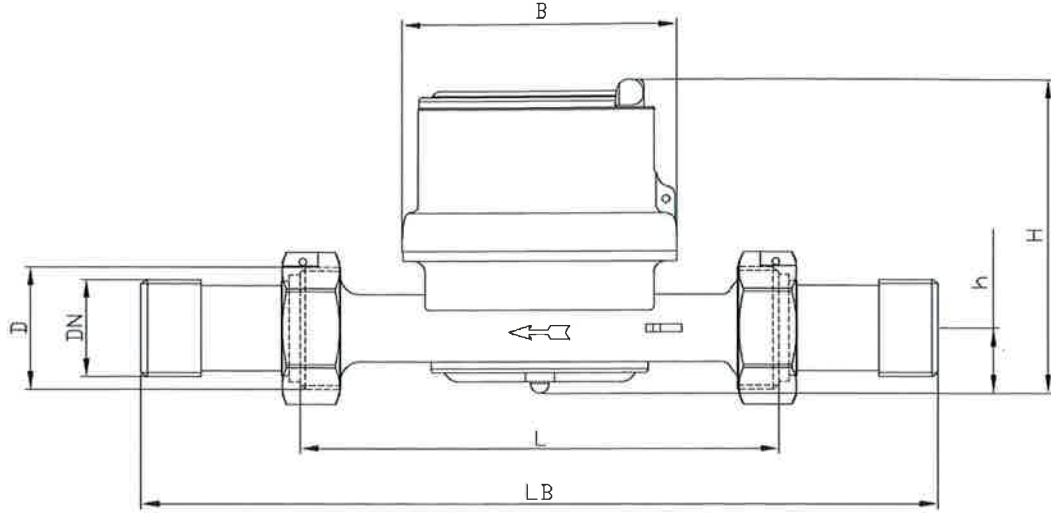
DIMENSIONS – ÖLÇÜLER KK-13							
Connection Pipe Diameter (mm) – DN <i>Sayaç Çapı</i>	15				20		
Connection Thread – D <i>Bağlantı Çapı</i>	G ¾ B				G 1 B		
Meter Length (mm) – L <i>Sayaç Uzunluğu</i>	110	115	165	170	110	115	190
Length with connections (mm) – LB <i>Rakorlarla Beraber Uzunluk</i>	190	195	245	250	190	195	270
Total Overall Meter Height (mm) – H <i>Toplam sayaç Yüksekliği</i>	106,5						
Axis Height (mm) – h <i>Merkez Yüksekliği</i>	21,2						
Width (mm) – B <i>Sayaç Genişliği</i>	95						



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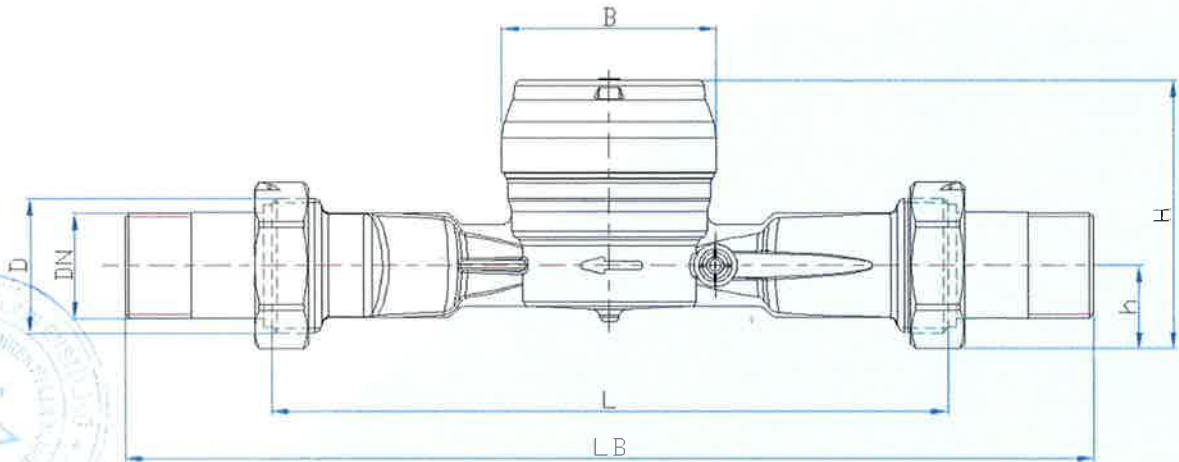
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DIMENSIONS – ÖLÇÜLER KK-14

Connection Pipe Diameter (mm) – DN Sayaç Çapı	15				20			
Connection Thread – D Bağlantı Çapı	G ¾ B				G 1 B			
Meter Length (mm) – L Sayaç Uzunluğu	110	115	130	145	110	115	130	145
Length with connections (mm) – LB Rakorlarla Beraber Uzunluk	190	195	210	225	190	195	210	225
Total Overall Meter Height (mm) – H Toplam sayaç Yüksekliği	85	85	85	85	85	85	85	85
Axis Height (mm) – h Merkez Yüksekliği	17,5	17,5	17,5	17,5	17,5	17,5	17,5	17,5
Width (mm) – B Sayaç Genişliği	74	74	74	74	74	74	74	74





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DIMENSIONS – ÖLÇÜLER KK-15	
Connection Pipe Diameter (mm) – DN <i>Sayaç Çapı</i>	25
Connection Thread – D <i>Bağlantı Çapı</i>	G1 1/4B
Meter Length (mm) – L <i>Sayaç Uzunluğu</i>	260
Length with connections (mm) – LB <i>Rakorlarla Beraber Uzunluk</i>	378
Total Overall Meter Height (mm) – H <i>Toplam sayaç Yüksekliği</i>	108
Axis Height (mm) – h <i>Merkez Yüksekliği</i>	23
Width (mm) – B <i>Sayaç Genişliği</i>	95

DIMENSIONS – ÖLÇÜLER KK-16	
Connection Pipe Diameter (mm) – DN <i>Sayaç Çapı</i>	32
Connection Thread – D <i>Bağlantı Çapı</i>	G1 1/2B
Meter Length (mm) – L <i>Sayaç Uzunluğu</i>	260
Length with connections (mm) – LB <i>Rakorlarla Beraber Uzunluk</i>	378
Total Overall Meter Height (mm) – H <i>Toplam sayaç Yüksekliği</i>	108
Axis Height (mm) – h <i>Merkez Yüksekliği</i>	23
Width (mm) – B <i>Sayaç Genişliği</i>	95

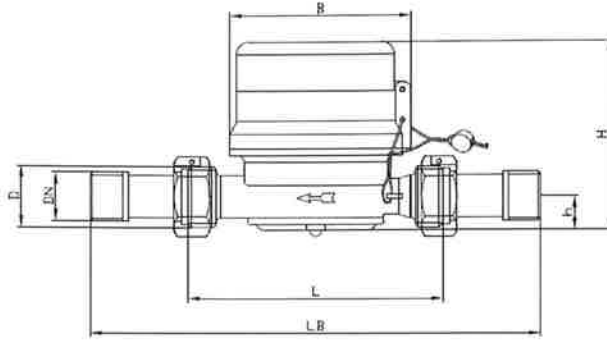
DIMENSIONS – ÖLÇÜLER KK-17	
Connection Pipe Diameter (mm) – DN <i>Sayaç Çapı</i>	40
Connection Thread – D <i>Bağlantı Çapı</i>	G2 B
Meter Length (mm) – L <i>Sayaç Uzunluğu</i>	300
Length with connections (mm) – LB <i>Rakorlarla Beraber Uzunluk</i>	429
Total Overall Meter Height (mm) – H <i>Toplam sayaç Yüksekliği</i>	119
Axis Height (mm) – h <i>Merkez Yüksekliği</i>	37
Width (mm) – B <i>Sayaç Genişliği</i>	95



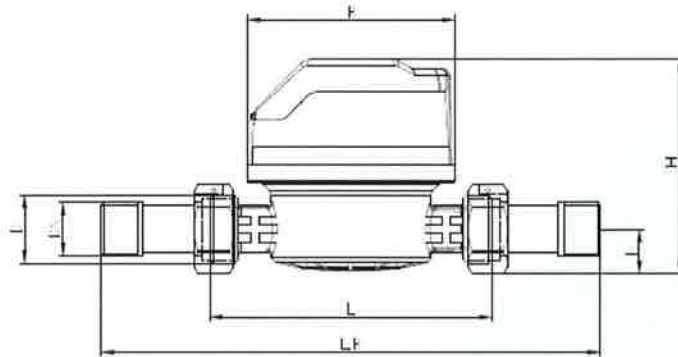
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DIMENSIONS – ÖLÇÜLER KK-29		
Connection Pipe Diameter (mm) – DN <i>Sayaç Çapı</i>	15	20
Connection Thread – D <i>Bağlantı Çapı</i>	G 3/4B	G1 B
Meter Length (mm) – L <i>Sayaç Uzunluğu</i>	110	130
Length with connections (mm) – LB <i>Rakorlarla Beraber Uzunluk</i>	195	215
Total Overall Meter Height (mm) – H <i>Toplam sayaç Yüksekliği</i>	82	82
Axis Height (mm) – h <i>Merkez Yüksekliği</i>	14,5	17,5
Width (mm) – B <i>Sayaç Genişliği</i>	78	78



DIMENSIONS – ÖLÇÜLER KK-29P	
Connection Pipe Diameter (mm) – DN <i>Sayaç Çapı</i>	15
Connection Thread – D <i>Bağlantı Çapı</i>	G ¾ B
Meter Length (mm) – L <i>Sayaç Uzunluğu</i>	110/115
Length with connections (mm) – LB <i>Rakorlarla Beraber Uzunluk</i>	190/195
Total Overall Meter Height (mm) – H <i>Toplam sayaç Yüksekliği</i>	82
Axis Height (mm) – h <i>Merkez Yüksekliği</i>	15,8
Width (mm) – B <i>Sayaç Genişliği</i>	81

Main Dimensions of water meter

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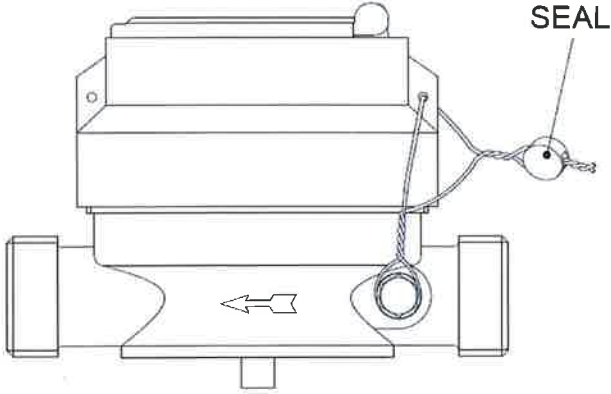
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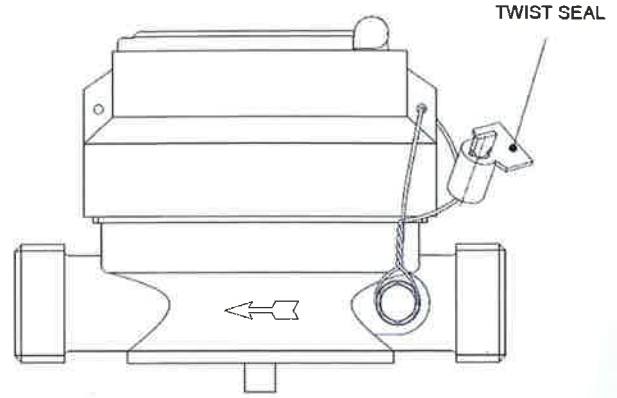
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Annex-3:

OPTION 1

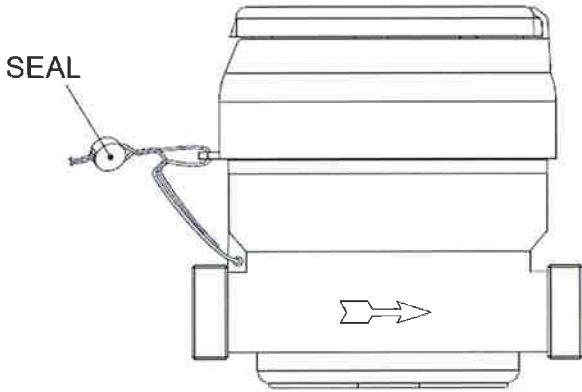


OPTION 2

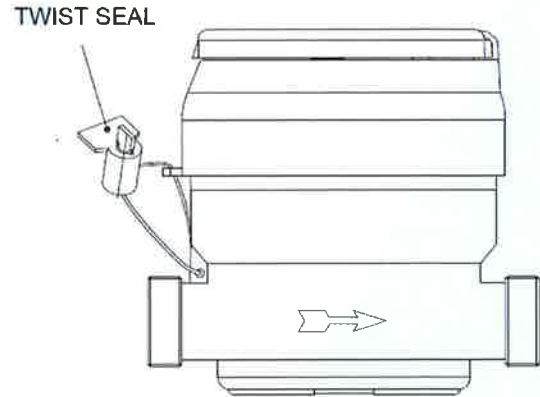


KK-1 & KK-1P & KK-2 & KK-2P & KK-10 & KK-11 & KK-12

OPTION 1



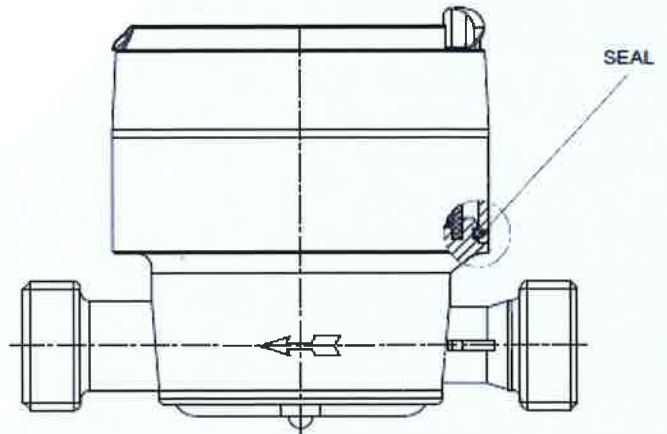
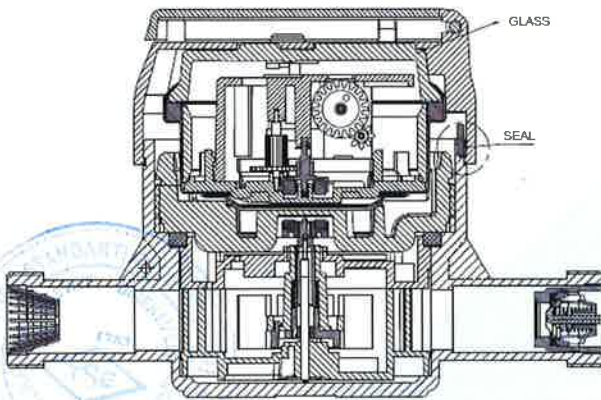
OPTION 2



OPTION 3

After assembling plastic head to lower body, it is impossible to take it out without damage plastic head.

After assembling plastic head to lower body, it is impossible to take it out without damage plastic head.



KK-13 SEALS

KK-2 & KK-2P SEALS

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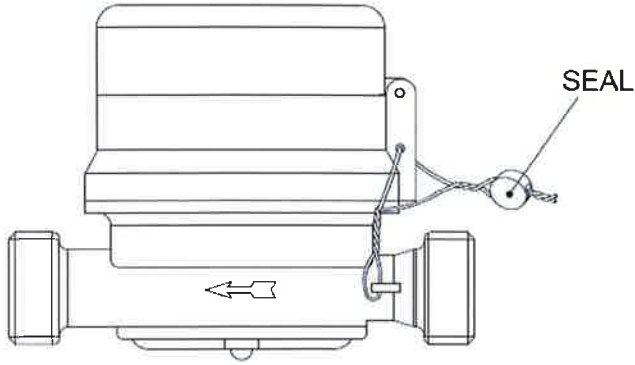


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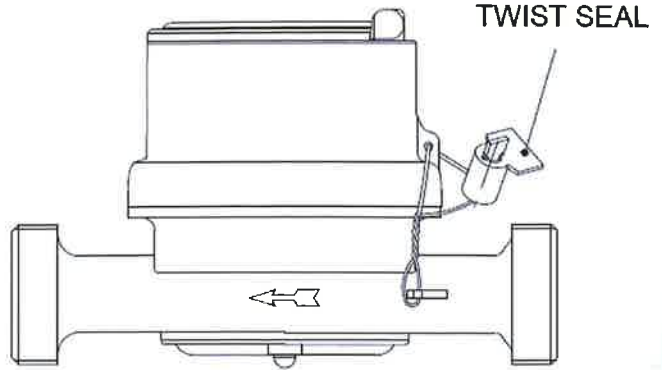
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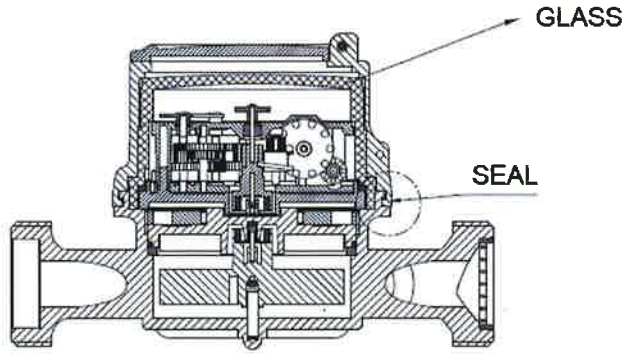
OPTION 1



OPTION 2

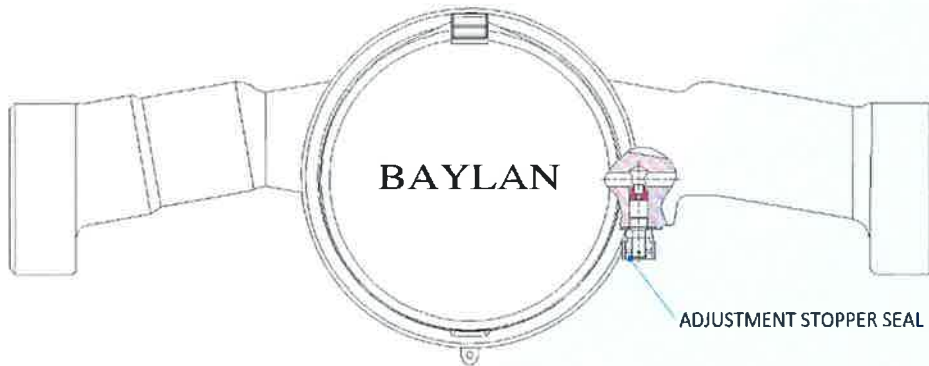


OPTION 3



Sealing Plan KK-14

OPTION 1



OPTION 2



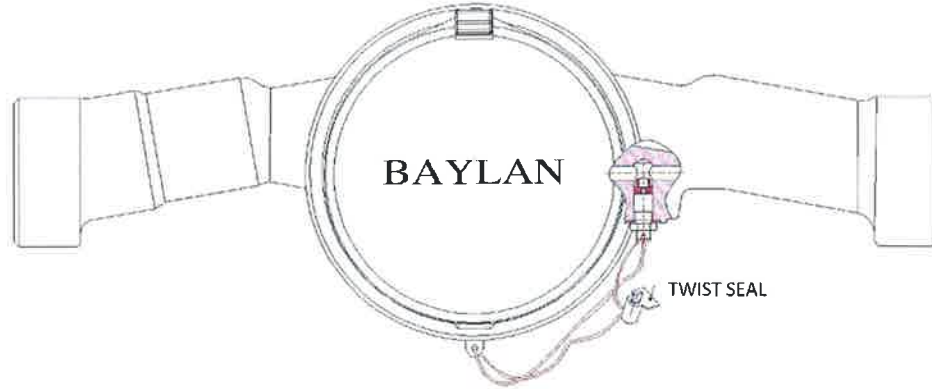


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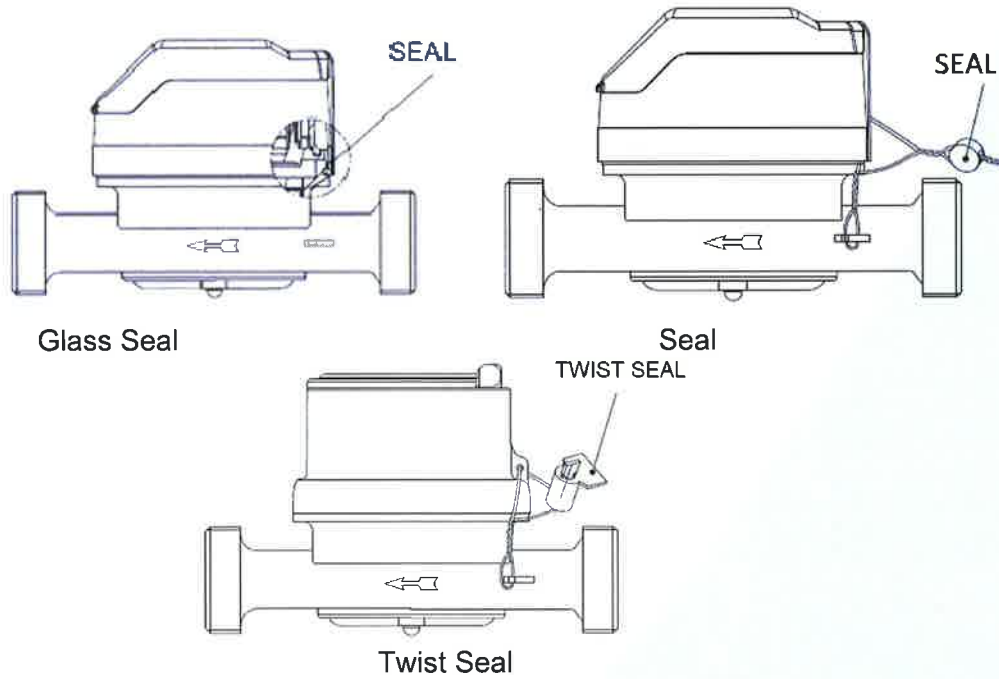
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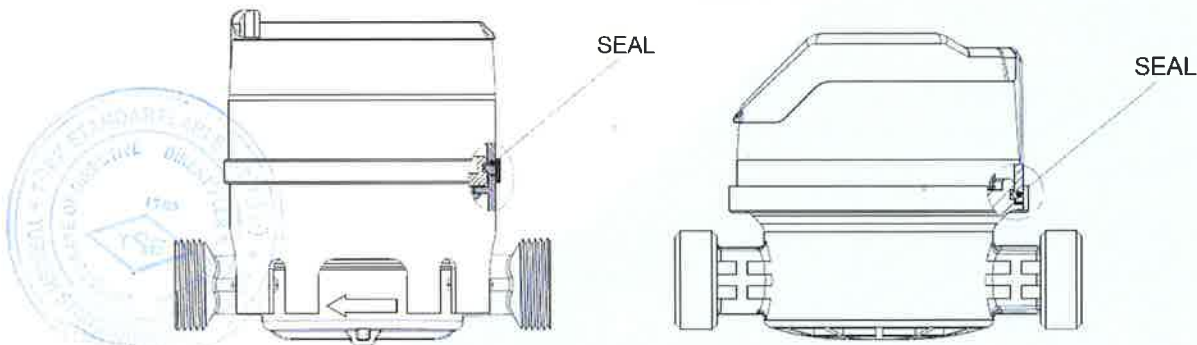
OPTION 3



Sealing of KK-15-16-17



KK-29 Seal



* After assembling plastic upper body to lower body, it is impossible to take it out without damage security chamber or plastic upper body.

KK-2M, KK-29P Sealing

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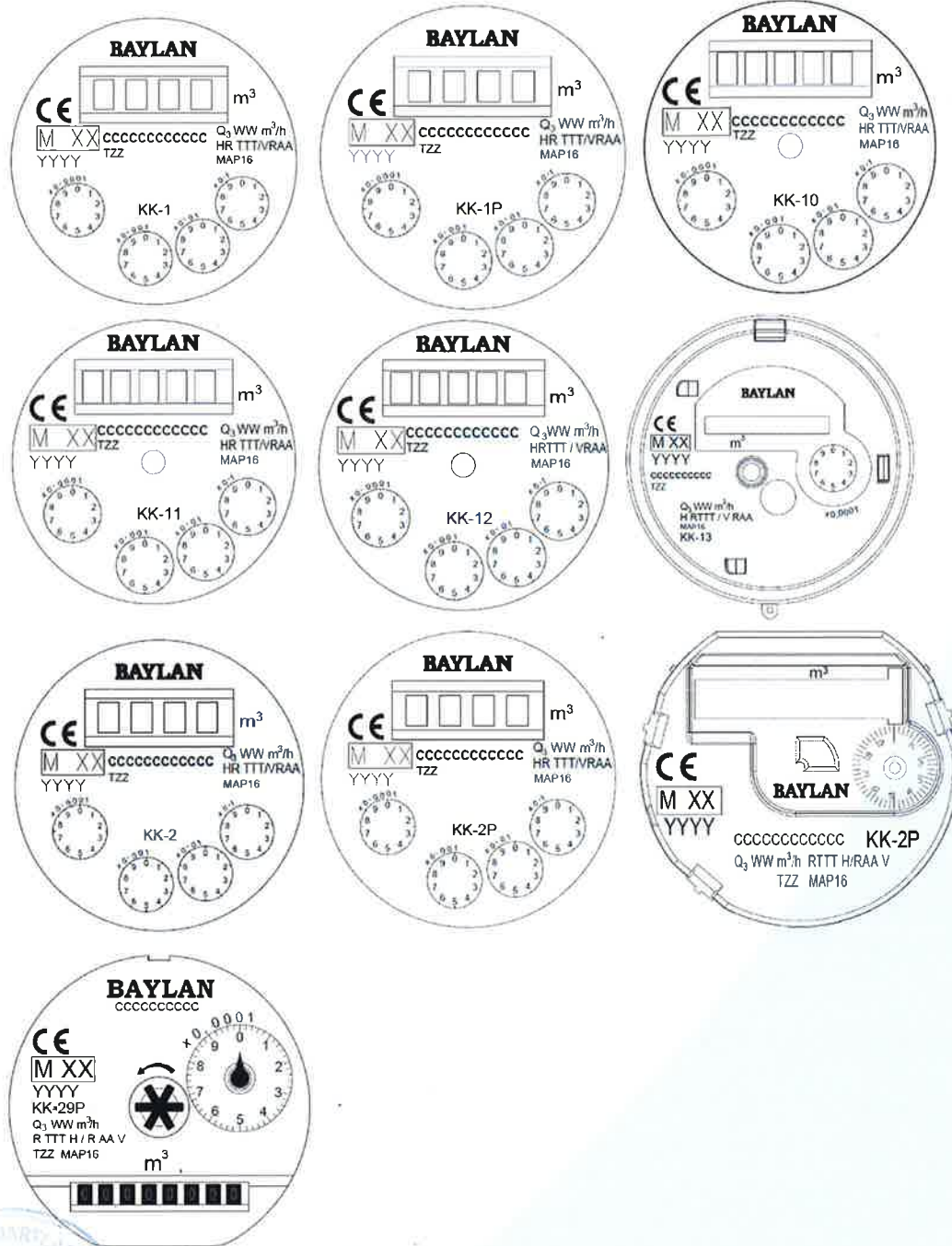


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Annex-4:



XX : The last two digits of the production year.

YYY : D module approval number.

ZZ : Temperature Class

CCCCCCCC : B module approval number.

WW : Q3 Value of the Water Meter

TTT : R value of the water meter at horizontal position.

AA : R value of the water meter at vertical position.

If the meter is Class 1, Class 1 is written on the marking.

If the meter is Class 2, there is no need to write Class 2.

KK-1 & KK-1P & KK-2 & KK-2P & KK-10 & KK-11 & KK-12 & KK-13 & KK-29P

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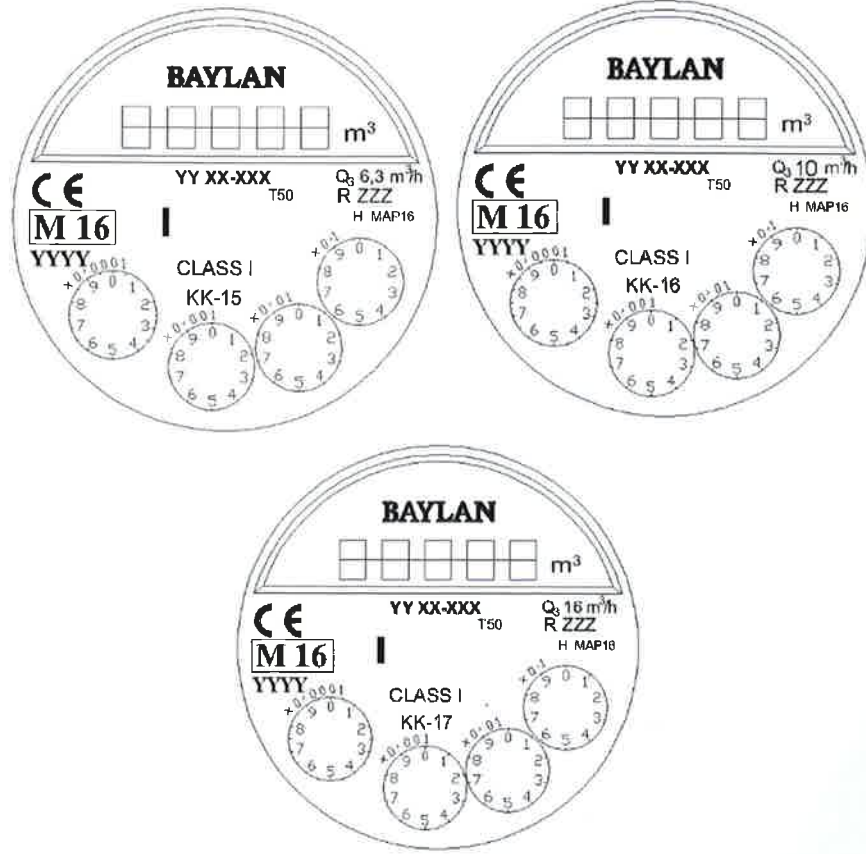
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YYYY : D module approval number.
YY XX-XXX: B module approval number.
ZZZ is R value of the meter

If water meter is class 1, it will be written on the marking

KK-15, KK-16, KK-17

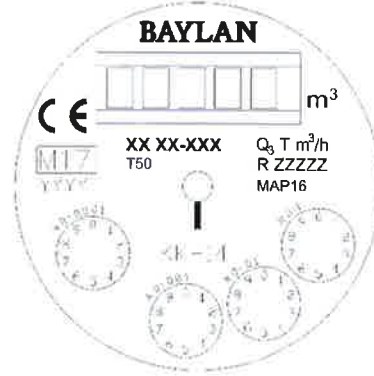




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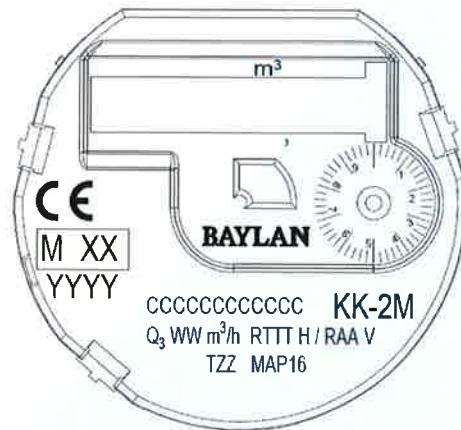
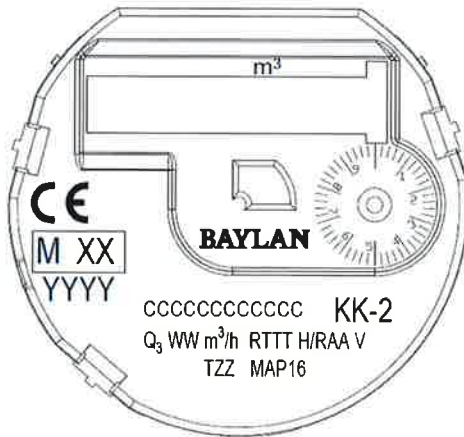
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-K can be 2,5 m³/h or 4m³/h.
 -If watermeter is CLASS II, not necessary to write.
 -ZZZ and WWW can be change H 100, 125, 160, 200 and V 40,50,63,80 by technical and metrological data table.
 -YYYY is number of the D module approval.

-T can be 2,5 m³/h or 4m³/h.
 -If watermeter is CLASS II, not necessary to write.
 -ZZZZZ can be change H 100, 125, 160, 200 and V 40,50,63,80 by technical and metrological data table.
 -YYYY is number of the D module approval.

KK-29, KK-14



XX: The last two digits of the Year of Manufacture
 YYYY: D Module checked Number
 ZZ: Temperature Class
 CCCCCCCCCC: B Module checked Number
 WW: Q₃ of the Water Meter
 TTT: R value in horizontal position of counter
 AA: R value in vertical position of the counter

KK-2 8 Rollers & KK-2M

Marking

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REVISION PAGE

Rev. Nu.	Date	Reason of Revision
-	29.03.2016	Certification
01	04.10.2016	KK-29 models added
02	16.05.2017	KK-14 models added
03	14.05.2018	KK-13 models added
04	27.02.2020	KK-1, KK-1P, KK-10, KK-11, KK-12, KK-13 models added. KK-14, KK-15, KK-16, KK-17 KK-29 twist seal added.
05	20.04.2020	KK-2 models added
06	29.11.2021	KK-2P models added.
07	08.02.2022	KK-2P DN15 110/115mm. models added.
08	11.03.2022	KK-2 DN15 110/115mm models added.
09	06.09.2022	R value of KK-29 DN15/DN20 110mm water meter increased to R200.
10	07.02.2023	Name Change
11	11.09.2023	KK-2M models have been added.
12	30.09.2024	KK-29P models have been added.

