



**A complete solution to
measure water consumption**



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Overview of a system – istameter m

Mounting style

Caps/collars



Surface mounting



istameter m
Item no. 15521 hot
Item no. 15621 cold



Flush mounting



Item no. 15300
Cap, chrome-plated
Item no. 15400
Collar, chrome-plated



Contact module "contact"
Item no. 19404 1 l/Imp
Item no. 19408 10 l/Imp
Item no. 19409 100 l/Imp
Item no. 19412 10 l/Imp Namur



Installation on
shut-off valve



Item no. 15318
Cap, short, chrome-plated








Installation on the bathtub /
shower fixtures





Item no. 15318
Cap, short, chrome-plated

Item no. 15316
dto. ø 75 mm (no image)

Mounting parts

	Connecting dimension	Installation length	Item no.
 <p>SPC male thread</p>	G 3/4 B	80	14110
	G 3/4 B	110	14103
	G 1 B	105	14403
	G 1 B	130	14404*
	G 1 B	130	14414
	G 1 B	190	14408*
 <p>SPC female thread</p>	Rp 1/2	94	14000
	Rp 1/2	94	14011*
	Rp 3/4	100	14100
	Rp 3/4	100	14012*
 <p>SPC solder connection</p>	15 mm	94	14200
	15 mm	94	14013*
	18 mm	100	14300
	18 mm	100	14014*
	22 mm	105	14400
	22 mm	105	14015*
	28 mm	190	14402*
 <p>SPC press connection</p>	15 mm	145	14008*
	18 mm	145	14009*
	22 mm	145	14010*
 <p>Mounting blocks</p>	Duo eco	Rp 3/4 IG	39995
	Duo perfect	Rp 3/4 IG	39990

Mounting parts	Installation kit	Item no.
 <p>VCP, horizontal</p>	Horizontal	13880
	Vertical	13879
 <p>Bathtub / shower fixtures</p>	Set for 1 istameter m	17550
	2 istameter m	17560

Accessories

Connecting dimension	Style	Item no.
R 1/2	Brass	17000
15 mm	Solder	17005
18 mm	Solder	17006
R 3/4	Brass	17100
22 mm	Solder	17105

For all SPC as required

Extension	Item no.
20 mm	15003
40 mm	15004
Flow direction converter	14903



Supplement kit	Item no.	Extension kit	Item no.
R 1/2	13022	R 1/2 20 mm	13621
R 1/2 short	13030	R 1/2 60 mm	13623
R 3/4	13122	R 3/4 20 mm	13631
R 3/4 short	13130	R 3/4 60 mm	13633
R 1	13222	R 1 20 mm	13641
R 1 short	13230	R 1 60 mm	13643

* SPC made of red brass

istameter m – the modularly upgradeable water meter



The istameter m water meter is the newest version of the original istameter trusted by millions. As a modular water meter, the istameter m offers a solution for every type of technology and application using only one meter.

Safe investment

In its basic version, the istameter m is supplied with an attached blank module. The modular design of the istameter m ensures that each blank module can be quickly and easily removed at any time, thus offering the basis for a water meter with pulse output capability:

system-compatible with module contact

Performance features

As a fully-dry meter, the istameter m guarantees increased operating safety and measurement precision. The counter does not come into contact with the flowing water – no deposits are left behind in the counter. The istameter m water meter is installed using mounting parts (e.g. SPC single-pipe connection piece, VCP valve connector). Thanks to this modular design, only the meter must be replaced during an exchange, e.g. when the calibration term has expired.

The istameter m can be installed horizontally or vertically. The counter can be turned to the most favourable position.

Areas of use

The complete istameter m system with meters, mounting parts and accessories offers multiple options for use in residential areas:

- as a flush-mounted meter
- as a surface-mounted meter
- on the shut-off valve
- on the bathtub or shower fixtures
- under the bathroom or kitchen sinks
- in pre-installed flush-mounted boxes

Thanks to its single pipe connection (SPC), the istameter m can be universally mounted on almost all customary installations. Once mounted, the SPC remains permanently attached to the installation.

Mounting the istameter m to existing supply lines, e.g. during renovation of old buildings, is not a problem thanks to the valve connector (VCP). The istameter m system is supplemented by accessories and mounting aids.

i

Benefits to You

- Trend setting technology through modular composition
- Complete metering system for cold and hot water in residential properties
- Easy replacement by separating the meter from the mounting parts
- Broad spectrum of use due to high diversity of designs
- Precise measurement and reliability
- Available with nominal flow rates of Q_n 1.5 m³/h and Q_n 2.5 m³/h

Functional description

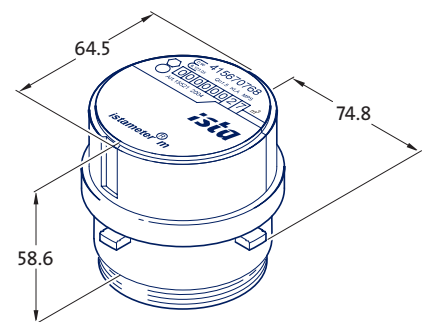
istameter m cold and hot water meters are multi-jet impeller meters with magnetic coupling and roller-type counters. The advantage of the multi-jet impeller meter is the uniform load on the impeller and thus its high measuring stability. The magnetic coupling transfers the rotation of the impeller onto the counter.

The istameter m principle is a coaxial principle. This means that the water inflow and outflow through the meter takes place in concentrically-arranged inflow and outflow channels with large cross sections. This provides for dimensional stability, very little loss in pressure, and a trouble-free seal between the meter and the mounting parts.

istameter m is a classic among residential water meters, with a modern design.

The istameter m principle is synonymous with a technically mature, complete measuring system.

istameter m

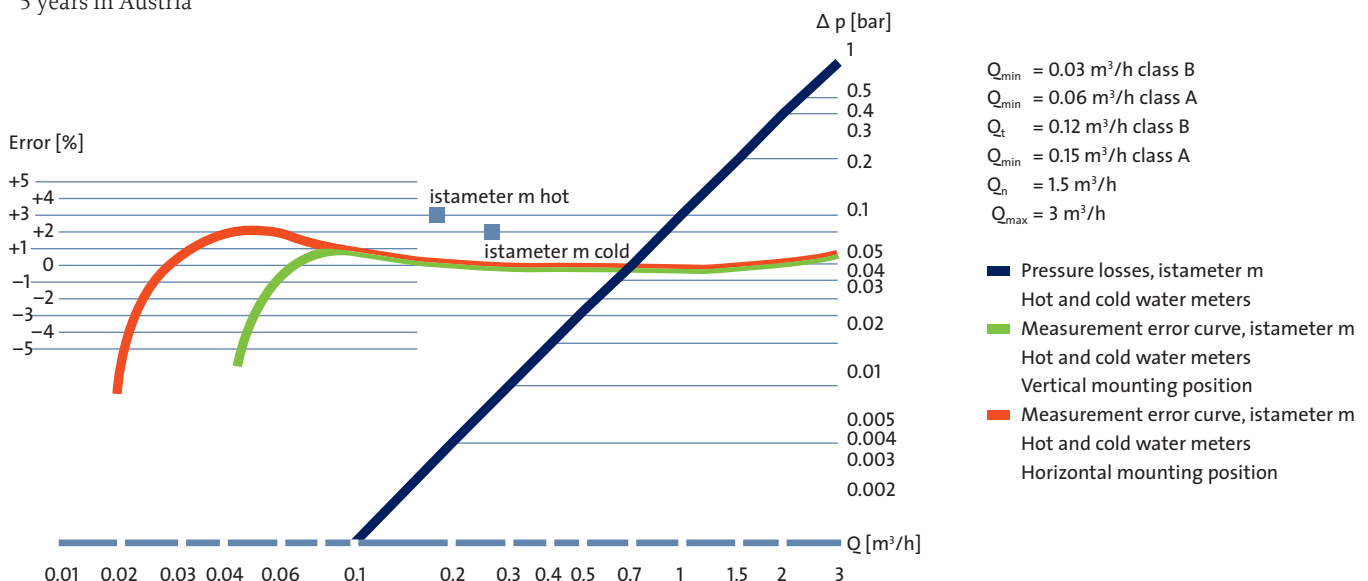


Dimensions in mm

Technical data

Device type		istameter m			
		Multi-jet impeller meter			
Measuring principle					
Design		hot 1.5	cold 1.5	hot 2.5	cold 2.5
Item number		15521	15621	15523	15623
Nominal flow rate	Q_n (m ³ /h)	1.5		2.5	
Max. flow rate	Q_{max} (m ³ /h)	3.0		5.0	
Pressure loss with Q_n	Δp (bar)	0.2		0.2	
Horizontal mounting position, class B	Q_{min} (l/h)	30		50	
	Q_t (l/h)	120		200	
Vertical mounting position, class A	Q_{min} (l/h)	60		100	
	Q_t (l/h)	150		250	
Nominal temperature (water)	up to °C	90	30	90	30
Nominal pressure	PN (bar)	10		10	
Testing pressure	PN (bar)	16		16	
Protection class		complies with DIN 40050: IP 65		complies with DIN 40050: IP 65	
Water consumption count	m ³	5-digit		5-digit	
	l	3-digit		3-digit	
Connecting thread, SPC mounting parts		Rp 1/2, Rp 3/4, G 3/4 B, G 1 B		Rp 3/4, G 3/4 B, G 1 B	
Connecting dimensions, soldered SPC mounting parts		L 15, L 18, L 22		L 22, L 28	
Connecting dimensions, pressed SPC mounting parts		P 15, P 18, L 22		P 22	
Connecting dimensions, VCP mounting parts		R 1/2, R 3/4, R 1		-	
Magnetic protection		EN 14154-3		EN 14154-3	
Calibration validity		5 years	6 years*	5 years	6 years*

* 5 years in Austria



istameter m – system-compatible with module contact



Contact module “contact”



The system-compatible water meter

With the contact module, the istameter m becomes a remotely-readable variant. By simply plugging in the module, the istameter m can be connected to automatic readout systems such as central control stations or building control stations.

The potential-free contact is a relay contact through which the water meter's volume-proportional pulses are emitted. An electro-

mechanical reed switch is used. The operation is conducted contact-free by permanent magnets. Depending on the flow rate in the water meter, the module emits pulses of different durations. An mbus module can also be specified.

If desired, you can also receive a module with a Namur protective circuit. (The Namur circuit protects against damage – such as short circuits – and monitors the connection cable for a possible line break.)

Diverse pulse sequences are available, as needed.

Possible pulse sequences

- 1 litre/pulse
- 10 litres/pulse
- 100 litres/pulse
- 10 litres/pulse with Namur protective circuit

Technical data

All istameter m water meters basically possess a sensor disc in the form of a reflecting segment, located on the water meter's counter mechanism.

When using the contact module, the water meter transmits the respective meter reading, through this sensor disc, to the electronics found in the module. The transmission is conducted electronically and free of feedback, thus guaranteeing a safe, non-magnetic conveyance of the measuring results from the water meter to the module.

Everything is possible

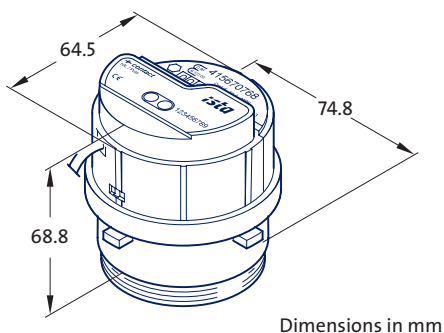
All istameter m meters can be equipped immediately or at a later point in time with the contact module "contact". You can make a decision today and procure the basis for the technology of tomorrow.

When extending the contact cable, it is necessary to observe the following:

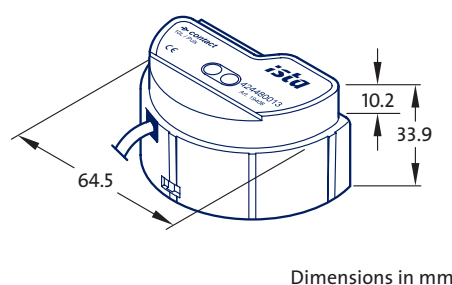
- Cable routing is not parallel to the power lines (230 V), min. distance 0.60 m
- Distance to devices that emit stray radiation (e.g. motors, control cabinets), min. 1.0 m
- The length of the control cable depends on the connected readout unit and totals a max. of 300 m

Device type	Contact module			
	19404	19408	19409	19412
Item no.	19404	19408	19409	19412
Contact sequence l/pulse	1	10	100	10
Contact	without Namur			with Namur
Pulse output	every 2 sec.			
Pulse duration	250 ms.	3 sec.	3 sec.	3 sec.
Pulse pause	> 250 ms.	> 3 sec.	> 3 sec.	> 3 sec.
Contact open	> 6 M Ω	> 6 M Ω	> 6 M Ω	> 12 k Ω
Contact closed	100 Ω	100 Ω	100 Ω	1,86 k Ω
Max. voltage	30 V			
Assembly	may be plugged in all istameter m			
Transmission technology	electronic, non-reactive, non-magnetic return flow detection			
Cable length	1.0 m			
Conductor cross section	2 x 0.25 mm ²			
Protection class	IP 65			
Temperature ranges				
Environment	+ 5 to + 55 °C			
Storage	- 5 to + 45 °C			
Transportation	- 20 to + 80 °C			
Lifetime	12 years + 1 year storage + 1 year reserve			

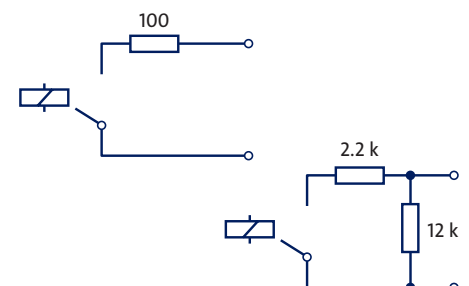
istameter m with contact module "contact"



contact module "contact"

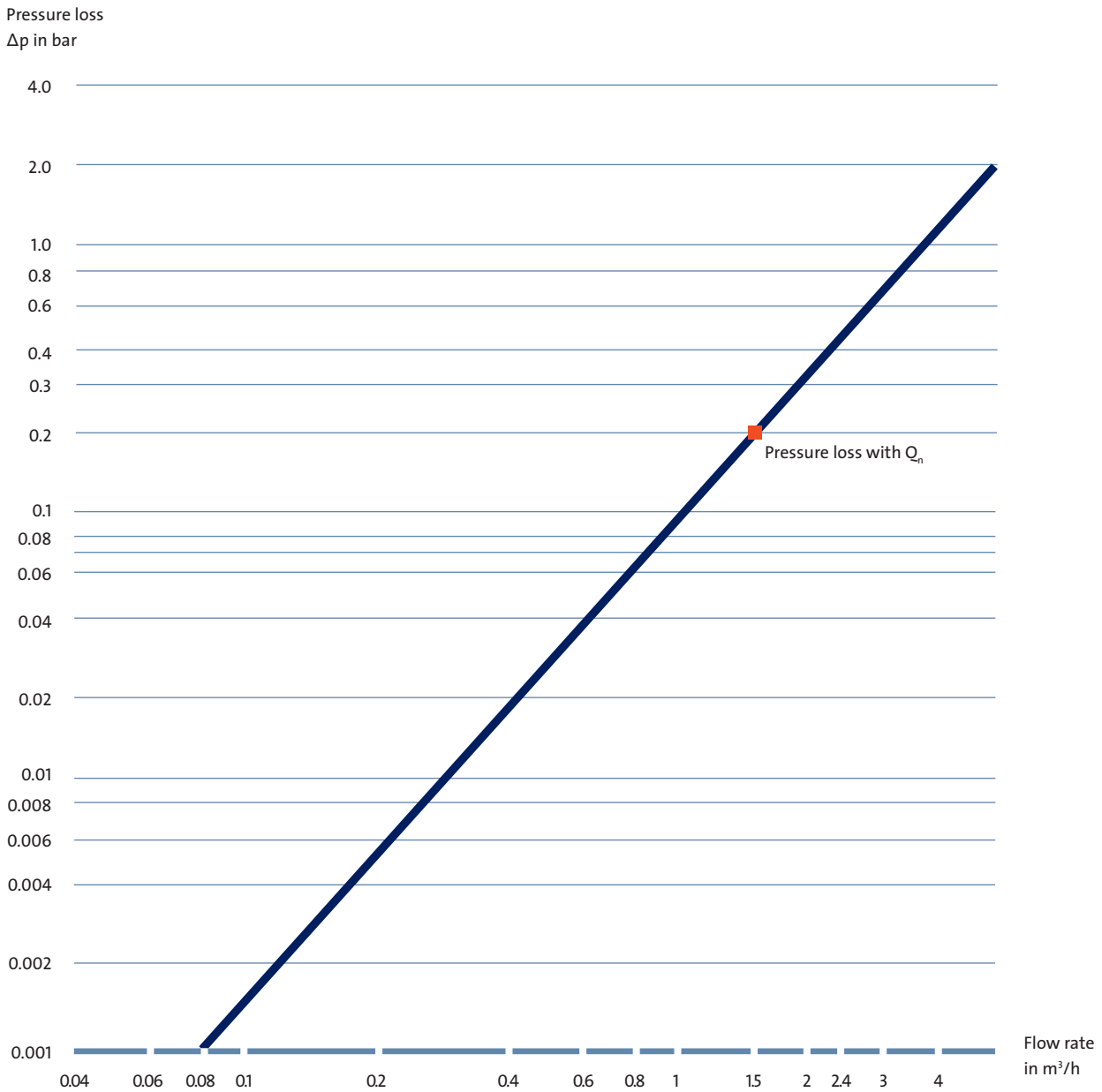


Contact with/without Namur



Pressure loss curve istameter m – Q_n 1.5 m³/h

Pressure loss curve istameter m incl. single-pipe connection piece (SPC)

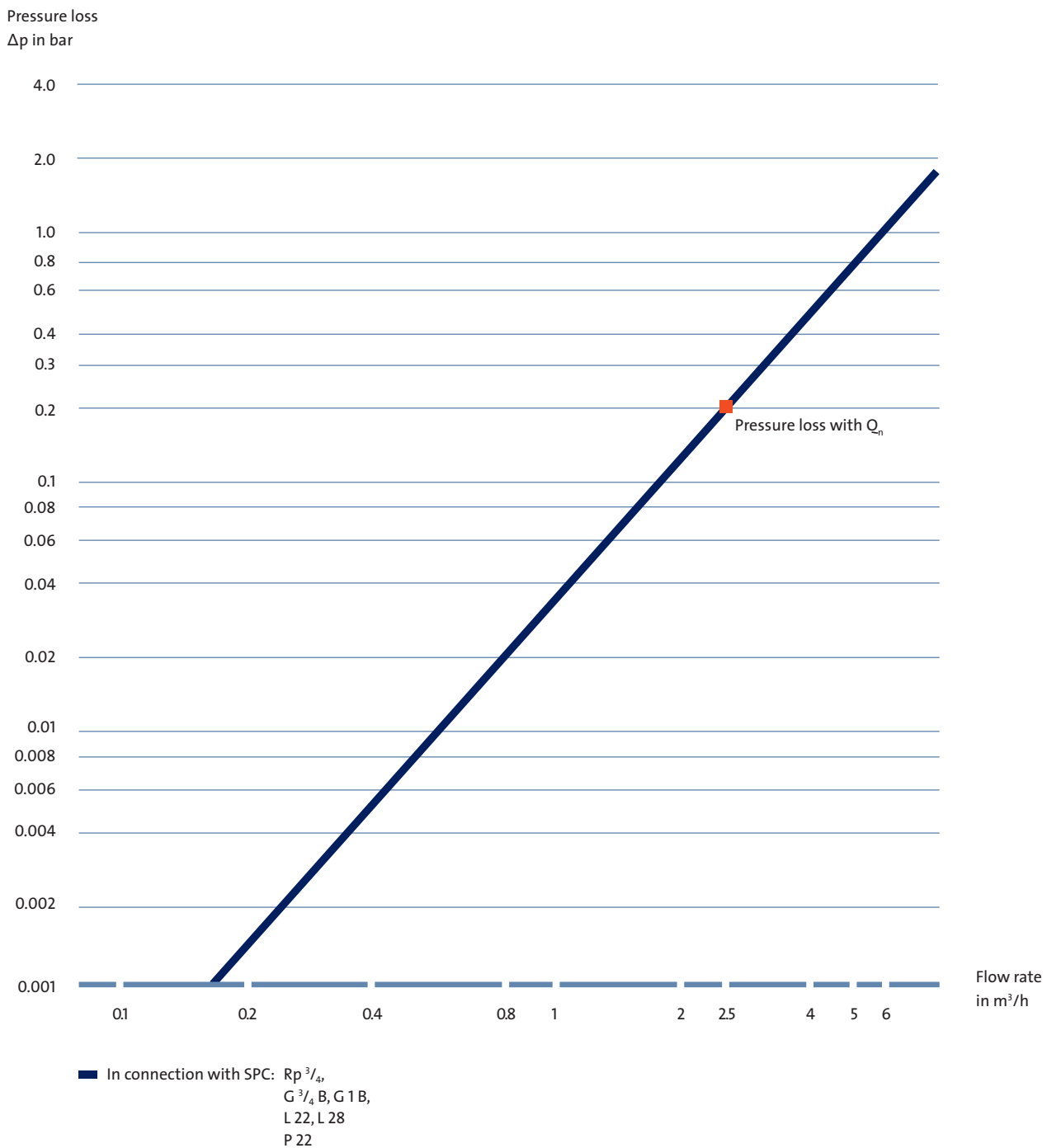


■ In connection with SPC: Rp 1/2, Rp 3/4,
G 3/4 B, G 1 B,
L 15, L 18, L 22
P 15, P 18, P 22

Pressure loss curve

istameter m – Q_n 2.5 m³/h

Pressure loss curve istameter m incl. single-pipe connection piece (SPC)



Single-pipe connection piece – can be used with any type of pipe available

Item no. 14409 Insulation jacket



Performance features

The single-pipe connection pieces (SPC) are made of brass. Designs in high-grade red brass are also alternatively available. The red brass SPC are the ideal design for use with hard water. SPC are available in different variations – if needed – e.g. with female or male threads, solder/press connection, and in diverse mounting lengths.

In order to prevent energy losses in the SPC with hot water conduits, an insulation jacket made of CFC-free Elastopor, which also serves as sound insulation, can be supplied.

Areas of use

Thanks to its many variants, the SPC can be mounted in almost all conventional pipe types, both horizontally and vertically.

Functional description

The single-pipe connection piece (SPC) is used to mount the istameter m water meter. It can be mounted universally on all conventional pipe types and installations, either horizontally or vertically, and remains permanently attached to the installation. Once the SPC is mounted, the overcurrent cap supplied seals the meter connection.

In this manner, the conduits can be pressure tested and flushed without problems.

In the case of flush mounting of the SPC, the plastic mounting aid is first inserted and the overcurrent cap is then screwed on. This achieves an exact tile closure which ensures sufficient space for the later mounting of the istameter m water meter. Following completion of the plastering and tiling work, the plastic mounting aid and overcurrent cap may be removed and the meter may be installed.



Benefits to You

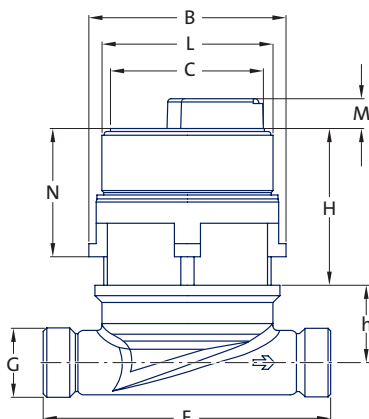
- Proven, technically mature, complete measuring system ("istameter m principle") for cold and hot water in the residential area
- Easy replacement by separating the meter from the mounting parts
- Broad spectrum of use thanks to high number of variants

Technical data

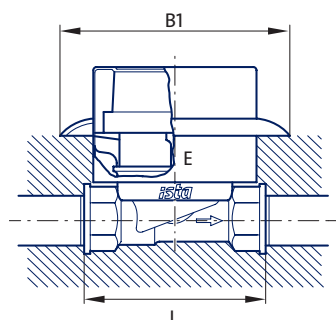
Design		Female thread*		Male thread				Solder connection*				Press connection*				
Item no. SPC	Brass MS 58	14000	14100	14103	14110	14414	14403	-	14200	14300	14400	-	-	-	-	
	Red brass RG 5	14011	14012	-	-	14404	-	14408	14013	14014	14015	14402	14008	14009	14010	
Nominal pressure	PN bar	10		10				10				10				
Testing pressure	PN bar	16		16				16				16				
Nominal temperature up to °C		90		90				90				90				
Connection at SPC (G)		Rp 1/2	Rp 3/4	G 3/4 B		G 1 B		15 mm	18 mm	22 mm	28 mm	15 mm	18 mm	22 mm		
Length of the SPC in mm (E)		94	100	110	80	130	105	190	94	100	105	130	145			
Height of the SPC in mm (h)		29.0	29.0	29.0	36.0	37.0	29.0	37.0	29.0	29.0	29.0	37.0	33.5	33.5	33.5	
Distance between 2 SPC		at least 100 mm (between the centres of the meters)														
Total height in mm (H+h)		88.9	88.9	88.9	97.9	96.9	88.9	96.9	88.9	88.9	88.9	96.9	93.4	93.4	93.4	
Total height with module in mm (H+h+M)		99.9	99.9	99.9	108.9	107.9	99.9	107.9	99.9	99.9	99.9	107.9	104.4	104.4	104.4	
SPC connection acc. to old designation		R 1/2"	R 3/4"	R 3/4"	R 3/4"	R 1"	R 1"	R 1"	15	18	22	28	15	18	22	
ISO 228/1 and DIN 2999 new		Rp 1/2	Rp 3/4	G 3/4 B	G 3/4 B	G 1 B	G 1 B	G 1 B	-	-	-	-	-	-	-	
Connecting thread of the screw connection acc. to DIN 2999		-	-	R 1/2	R 1/2	R 3/4	R 3/4	R 3/4	-	-	-	-	-	-	-	
Item no. Screw connection, pair:	Thread Solder			17000		17100										
				17005		17105		15 mm		22 mm						
				17006		18 mm										
Collar width (B1)								125.0								
Height in mm (H)								59.9								
Max. width in mm (B)								75.0								
Housing width in mm (L)								64.5								
ø Section in mm (C)								58.0								
Height cam (N)								48.6								
Height module (M)								11.0								

* SPC with mounting aid

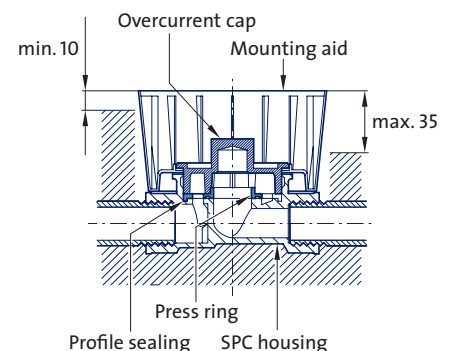
Connection dimensions



Half-section due to mounted SPC with istameter m, cap and collar



Cross section of single-pipe connection piece with overcurrent cap and mounting aid



Dimensions in mm

Mounting block – the clean solution

With mounting block



Without mounting block



Perfectly measuring and shutting off water
ista mounting blocks combine two important requirements in a single product:

- the ability to shut off hot and cold water in individual flats via flush-mounted valves
- the built-in parts for the hot and cold water meters

They are the ideal solution for new buildings or for the renovation of installations in old buildings. The pre-mounted unit guarantees an easy and time-saving installation: fast, safe, accurate and clean.

Two variants satisfy all wishes:

- eco
- perfect



Benefits to You

- Clean and time-saving installation, can be directly tiled
- Optimal heat insulation thanks to two-component PU foam according to DIN 3067/2 DVGW, heat loss values fall clearly below EnEV (Energy Saving Ordinance) guide values for heat loss
- Optimal sound absorption, noise insulation according to DIN 4109
- Flammability rating B2 (flame-resistant)
- Can be universally mounted on masonry or front-wall installation systems thanks to stable, fold-out fastening clamps
- Additional mounting angle for direct wall mounting
- Delivered ready to mount, completely piped, and tested for tightness

Mounting block eco – brass

Minimum installation depth of only 60 mm

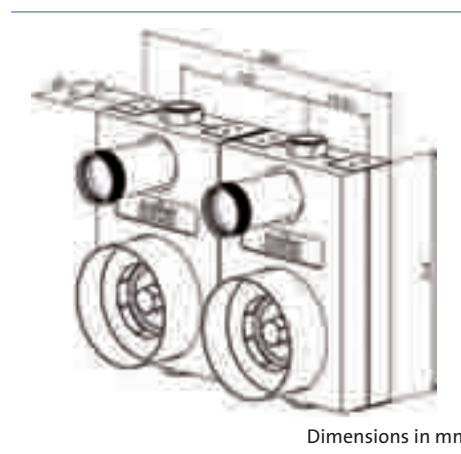
The eco variant is the introduction to the prefabricated unit, consisting of mounting parts for water meters and shut-off valves, laid in two-component PU foam. Thanks to its low installation depth of only 60 mm, the eco mounting block is especially suited for

installation in dry construction. All mounting parts are provided with protective caps, fully piped and leak-tested. They are also laid in high-grade, pressure-resistant, two-component PU foam of high tensile strength, providing heat insulation and sound absorption. The PU foam is of flammability rating B2 and can be easily tiled.

Duo eco mounting block

For the optimal mounting and positioning of istameter m water meters and shut-off valves:

- 2 flush-mounted valves, Rp $\frac{3}{4}$, DIN DVGW
- 2 single-pipe connection pieces (SPC), Rp $\frac{3}{4}$, for istameter m water meters
- 4 mounting angles
- Connections with female thread Rp $\frac{3}{4}$
- May also be used as a mono block
- Installation depth only 60 mm



Dimensions in mm

Two out of one

The Duo eco mounting block, in its Rp $\frac{3}{4}$ female thread design, features a ready-made trimmed edge on the front side. If required, the mounting block can be simply sawed through. In this manner, two mono blocks can be created from one duo block.



Design	Connection	Item no.
Mounting block Duo eco	Rp $\frac{3}{4}$ IG	39995

Mounting block “perfect” – red brass

The perfect solution for sanitary installations, completely in red brass

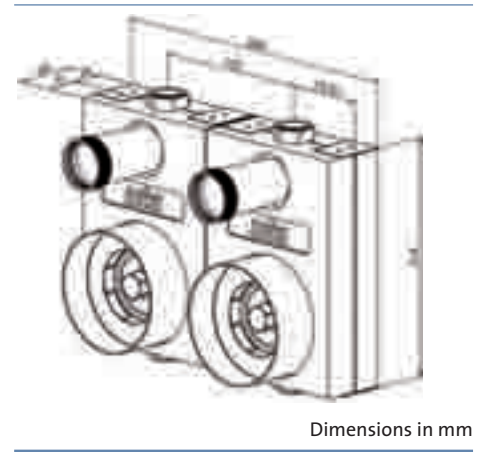
Perfect is a high-grade mounting block design with all piping made out of red brass (RG 5). This special material is ideally suited for use with drinking water systems, even under extreme water conditions.

All mounting parts are provided with protective caps, fully piped and leak-tested. They are also laid in high-grade, pressure-resistant, two-component PU foam of high tensile strength, providing heat insulation and sound absorption. The PU foam is of flammability rating B2 and can be easily tiled.

Duo perfect mounting block

For the optimal mounting and positioning of istameter m water meters and shut-off valves:

- The entire pipe segment has been cast in one single piece, without connecting elements of any kind, and is durably tight
- All piping made of red brass
- 2 flush-mounted valves, Rp $\frac{3}{4}$, Red brass, DIN DVGW
- 2 single-pipe connection pieces (SPC), Rp $\frac{3}{4}$, red brass, for istameter m water meters
- 4 mounting angles
- Connections with female thread Rp $\frac{3}{4}$
- May also be used as a mono block
- Installation depth only 60 mm



Dimensions in mm

Two out of one

The Duo perfect mounting block, in its Rp $\frac{3}{4}$ female thread design, features a ready-made trimmed edge on the front side. If required, the mounting block can be simply sawed through. In this manner, two mono blocks can be created from one duo block.



Entire pipe segment cast from one piece



Design	Connection	Item no.
Mounting block Duo perfect	Rp $\frac{3}{4}$ IG	39990

Accessories, control handles

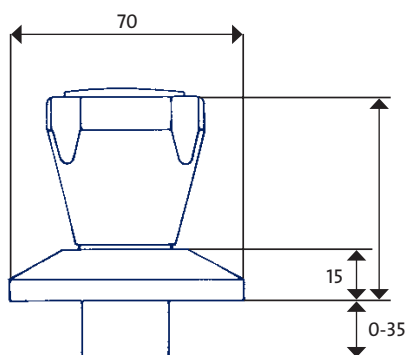
Control handles for the top components of the flush-mounted valve in the mounting block:

- Entire set plated in brass, consisting of handle, sleeve and collar
- Collar with wall seal
- Metal handle with blue or red cover
- Installation depth of 0 to 35 mm
- Installation depth of 35 to 90 mm, may be individually shortened

Control handles for ista eco and perfect mounting blocks

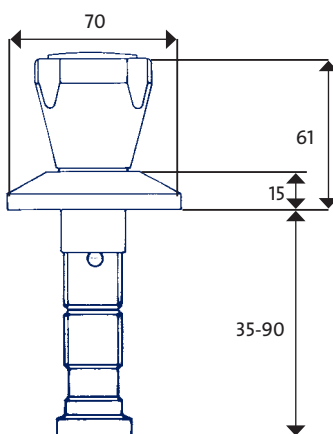
Design	Installation depth	Item no.
Brass handle, cold	0-35 mm	45515
Brass handle, hot	0-35 mm	45516
Brass handle, cold	35-90 mm	45512
Brass handle, hot	35-90 mm	45513

Control handle



Dimensions in mm

Extended control handle



Dimensions in mm

Valve connection piece – easily install a water meter after construction

Performance features

The valve connector (VCP) consists of a basic installation set and a supplementary installation set.

- The basic installation set, which is generally required, consists of measuring cup with shut-off valve, cap nut and wall collar.
- The supplementary installation set is individually selected according to the dimensions of the flat's shut-off valve (Rp 1/2, Rp 3/4 or Rp 1). It includes: a pressure screw with sliding ring, casing pipe, double nipple and riser pipe (with sleeve in the case of R 1/2).

Extension sets, consisting of riser pipe and casing pipe, are available for residential shut-off valves that have been installed too deeply inside the wall.

Areas of use

The VCP enables the easy post-construction installation of istameter m water meters in

existing supply lines, e.g. during renovation of old buildings.

Functional description

The valve connection piece (VCP) is the optimal solution for the post-construction installation of an istameter m water meter on existing residential shut-off valves (in accordance with DIN3512). The upper part of the residential shut-off valve is simply replaced by the VCP. Once mounted, the VCP remains permanently attached to the installation.

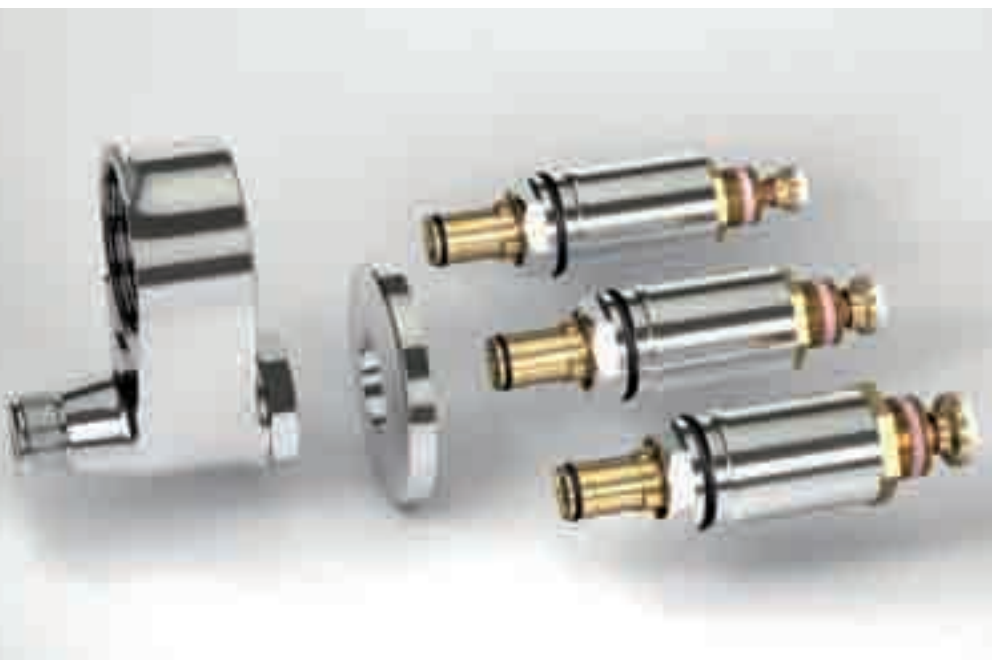
The water flows through the riser pipe to the istameter m water meter. The water flows back through the casing pipe to the flush-mounted lower portion of the valve.

The original function of the residential shut-off valve is preserved by a ceramic shut-off valve that is mounted on the VCP inlet. The meter can be easily replaced by closing this valve.



Benefits to You

- Proven, technically mature, complete measuring system ("istameter m principle") for cold and hot water in the residential area
- Easy replacement by separating the meter from the mounting parts
- Variants for vertical and horizontal installation
- Precise measurement and reliability
- High-grade ceramic shut-off valve guarantees durable and easy shut-off
- Special variants, e.g. for Rp 1 1/4 shut-off valves are available



Technical data

Vertical installation

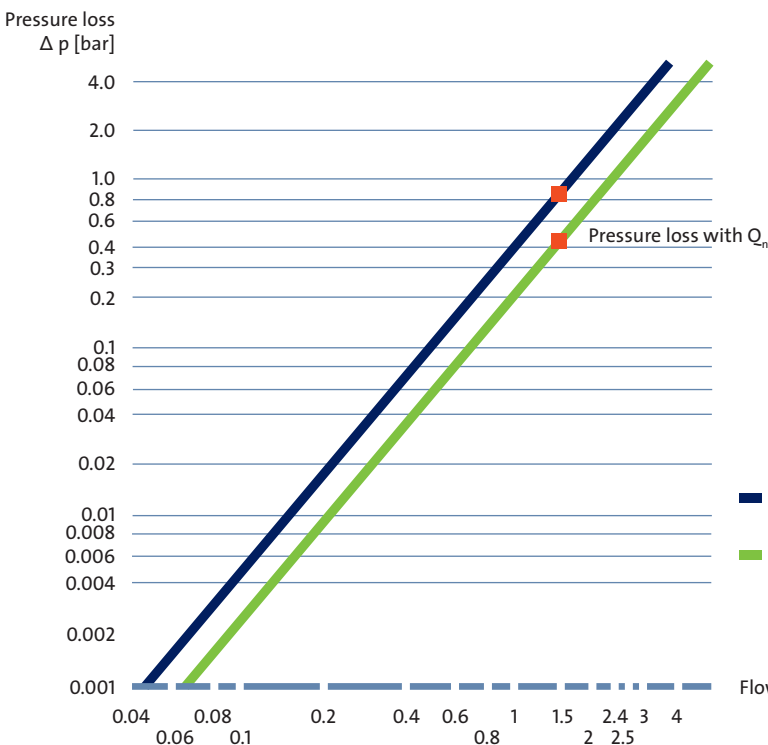
Connection		R 1/2	R 3/4	R 1
Item no. Basic installation set			13879	
Item no. Supplementary installation sets		13022	13122	13222
Item no. Supplementary installation sets, short*		13030	13130	13230
Nominal pressure	PN bar		10	
Testing pressure	PN bar		16	
Nominal temperature (water) up to °C			90	
Installation dimensions in mm				
Installation length	L	163	166	163
	l_1		30	
	H		135	
Installation height	h_1		110	
	h_2		65	
	D		90	
Diameter	d		83	
Item no. Extension	20 mm	13621	13631	13641
Item no. Extension	60 mm	13623	13633	13643

* The dimension L will be reduced by 20 mm

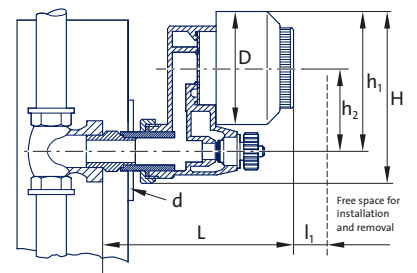
Horizontal installation

Connection		R 1/2	R 3/4	R 1
Item no. Basic installation set			13880	
Item no. Supplementary installation sets		13022	13122	13222
Item no. Supplementary installation sets, short*		13030	13130	13230
Nominal pressure	PN bar		10	
Testing pressure	PN bar		16	
Nominal temperature (water) up to °C			90	
Installation dimensions in mm				
Installation length	L	143	146	143
	l_1		30	
	H		119	
Installation height	h		25	
	D		90	
	d		83	
Item no. Extension	20 mm	13621	13631	13641
Item no. Extension	60 mm	13623	13633	13643

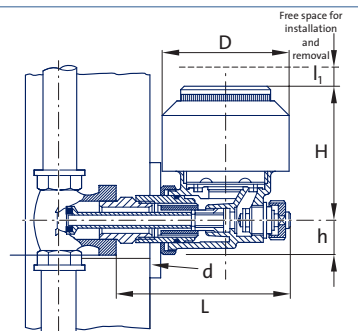
Pressure loss curve istameter m including valve connector



VCP – vertical installation



VCP – horizontal installation



Special installation options for istameter m at individual tap locations



Special installation options

The istameter m system is made complete by diverse options for individual measurement of hot and cold water usage at the individual tapping location.

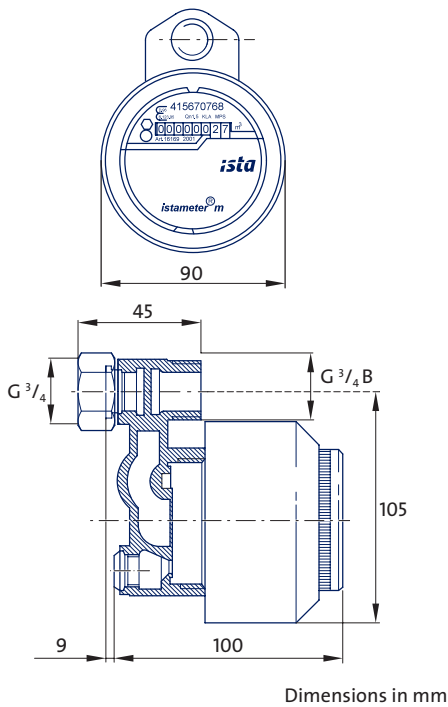
Whether on the bath tub/shower fixtures or between the corner valve and mixing tap – with the istameter m system there is always a solution.

One further option is the installation of the istameter m water meter in the existing flush-mounted boxes.



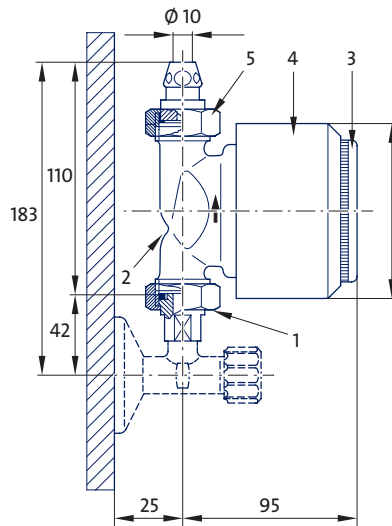
Special installation options

Bathtub installation



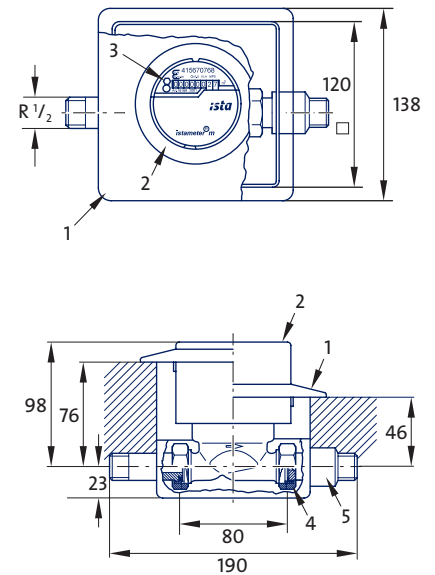
Dimensions in mm

Bathroom sink installation



Dimensions in mm

Flush-mounted installation



Dimensions in mm

When installing the istameter m on the bathtub or shower fixture, the built-in unit can be mounted facing upwards or downwards (depending on space requirements). If only one istameter m water meter is installed, e.g. for hot water, a supplied adapter will be used as a balancing piece.

Installation under the bathroom or kitchen sink is another option for using the istameter m to measure hot and cold water consumption. The mounting is conducted using the single-pipe connection piece (SPC) between the corner valve and the fixture's connecting pipe. The SPC can be mounted on

the corner valve using special screws or a flexible pressure hose.

Installation of istameter m water meters in existing flush-mounted boxes.

Bathtub / shower fixtures	Item no.
Installation on one side	17550
Installation on two sides	17560
Accessories	Item no.
istameter m hot	15521
istameter m cold	15621
Cap, short, chrome-plated	15318

Pos.	Description	Item no.
1	Special screw connection	17503
2	SPC G 3/4 B, 110 mm	14103
3	istameter m hot	15521
	istameter m cold	15621
4	Cap, short, chrome-plated	15318
5	Special screw connection	17516
to 5	Altern. flex. hose	17500

Pos.	Description	Item no.
1	Wall collar, chrome-plated	14111
2	Cap, chrome-plated	15300
3	istameter m hot	15521
	istameter m cold	15621
4	SPC G 3/4 B, 80 mm	14110
5	Flush-mounted boxes, pre-installed	

Accessories for istameter m

Practical accessories and mounting aids facilitate the daily work. Thanks to our long-term collaboration with professional tradesmen, we have developed a solution for every situation. For mounting parts (SPC) that have been

installed too deeply inside the wall or against the tile orientation, ista offers an extension or a tile orientation converter. The length of the extension is the amount provided as x.

Item no. 15003 Extension (20 mm)



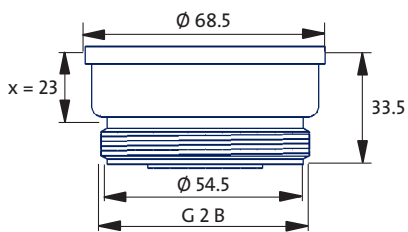
Item no. 15004 Extension (40 mm)



Item no. 14903 Tile orientation converter

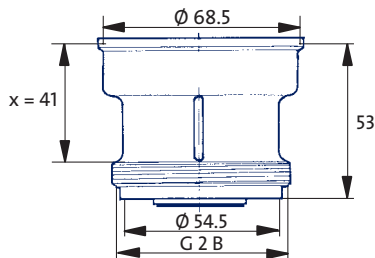


Half-section view of extension



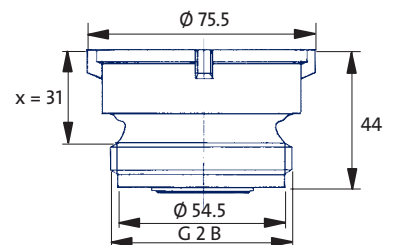
Dimensions in mm

Half-section view of extension



Dimensions in mm

Half-section view to tile orientation converter



Dimensions in mm

Item no. 15300 Cap, chrome-plated

Item no. 15400 Collar, chrome-plated

Item no. 15407 Collar, chrome-plated
ø 145 mm (no image)



Item no. 15318 Cap, short, chrome-plated

Item no. 15316 Cap, short, chrome-plated
ø 75mm (no image)



Item no. 80410 Installation/removal key,
plastic



Item no. 14409 Insulation jacket for SPC



Installation instructions

When installing the istameter m, neither hemp nor sealing compounds may be used. The istameter seals with the profile sealing. The meter must be screwed in using the installation wrench up to the fixed stop between the mounting part and the istameter m.

domaqua m – the modularly upgradeable surface-mounted water meter



The domaqua m is the alternative for many options for use in the residential segment. As a modular water meter, the domaqua m offers in all of its variants a solution for every type of technology and application.

Trendsetting

In its standard version, the domaqua m is supplied with an attached blank module. The modular design of the domaqua m ensures that the blank module can be quickly and easily removed at any time, thus offering the basis for a water meter with pulse output capability:

system-compatible with module contact

Performance features

As a dry meter, the domaqua m offers the assurance of high measuring precision and a long life. The penetration of foreign particles or deposits in the roller counter is impossible. Furthermore the housing prevents any splash water from entering.

The meters can be installed horizontally or vertically and the counter can be turned to the most favourable readout position.

Areas of use

As with the istameter system, the following types of mounting are possible depending on the accessory:

- Flush mounting
- Surface mounting
- On the bathroom or kitchen sink

As a single-jet meter, the domaqua m is also well suited for measurement of small consumption quantities, e.g. in flats. Different installation lengths enable the easy replacement of already-mounted meters.

Functional description

The domaqua m is a single-jet impeller meter with magnetic coupling and roller-type counter.



Benefits to You

- Trendsetting technology thanks to modular design
- Broad spectrum of use due to high number of variants
- Reliable and durable thanks to fully developed technology
- Available with nominal flow rates of Q_n 1.5 m³/h and Q_n 2.5 m³/h as well as installation lengths of 80, 110 and 130 mm
- Can be retrofitted with contact module

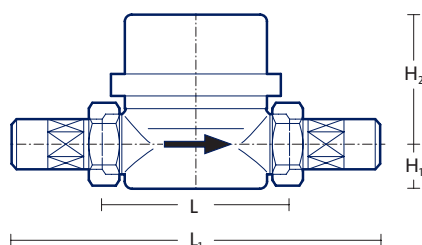
Technical data

Device type		domaqua m							
		Single-jet impeller meter							
Measuring principle									
Design		hot 1.5		cold 1.5			hot 2.5	cold 2.5	
Item number		16094	16095	16096	16090	16091	16092	16097	16093
Nominal flow rate	Q_n (m ³ /h)				1.5			2.5	
Max. flow rate	Q_{max} (m ³ /h)				3.0			5.0	
Pressure loss with Q_n	Δp bar				0.17			0.25	
Horizontal mounting position, class B	Q_{min} (l/h)				30			50	
	Q_t (l/h)				120			200	
Vertical mounting position, class A	Q_{min} (l/h)				60			100	
	Q_t (l/h)				150			250	
Nominal temperature (water)	up to °C	90					30	90	30
Nominal pressure	PN (bar)				10			10	
Testing pressure	PN (bar)				16			16	
Protection class		complies with DIN 40050: IP 65							
Magnetic protection		EN 14154-3							
Water consumption count	m ³				5-digit			5-digit	
	l				3-digit			3-digit	

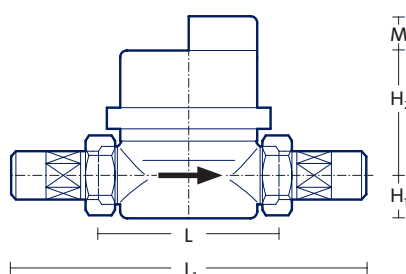
Installation dimensions in mm									
Installation length	L/L ₁	80/160	110/190	130/210	80/160	110/190	130/210	130/227	
Installation height	H/H ₁	54.5/16	52.5/16		54.5/16	52.5/16		52.5/16	
Installation height Module	M				10.2			10.2	
Connection thread on meter acc. to ISO 228/1					G 3/4 B			G 1 B	
Connection thread for screws acc. to DIN 2999					R 1/2			R 3/4	
Item no. Screw connection, pair	Brass				17000			17100	
	Chrome-plated				17200			17300	
	Solder				17005 (15 mm)			17105 (22 mm)	
Calibration validity period		5 years			6 years*			5 years	6 years*

* 5 years in Austria

domaqua m



domaqua m with contact module "contact"



domaqua m – system-compatible with module contact



The system-compatible water meter

With the contact module, the domaqua m becomes a remotely-readable variant. By simply plugging in the module, the domaqua m can be connected to automatic readout systems such as central control stations or building control stations.

The potential-free contact is a relay contact through which the water meter's volume-proportional pulses are emitted. An electro-mechanical reed switch is used. The operation is conducted contact-free by permanent magnets. Depending on the flow rate in the water meter, the module emits pulses of different durations. An mbus module can also be specified.

Optionally, a module with a Namur protective circuit is also available. (The Namur protective circuit protects against damage – e.g. short circuits – and monitors the connection cable for a possible line break.)

Diverse pulse sequences are available, as needed.

Possible pulse sequences

- 1 litre/pulse
- 10 litres/pulse
- 100 litres/pulse
- 10 litres/pulse with Namur protective circuit

Contact module “contact”



Technical data

All domaqua m water meters basically possess a sensor disc in the form of a reflecting segment, located on the water meter's counter mechanism.

When using the contact module, the water meter transmits the respective meter reading, through this sensor disc, to the electronics found in the module. The transmission is conducted electronically and free of feedback, thus guaranteeing a safe, non-magnetic conveyance of the measuring results from the water meter to the module.

Everything is possible

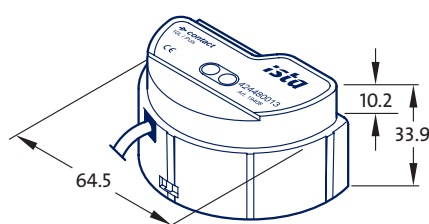
All domaqua m meters can be equipped immediately or at a later point in time with the contact module "contact".

When extending the contact cable, it is necessary to observe the following:

- Cable routing is not parallel to the power lines (230 V), min. distance 0.60 m
- Distance to devices that emit stray radiation (e.g. motors, control cabinets), min. 1.0 m
- The length of the control cable depends on the connected readout unit and totals a max. of 300 m

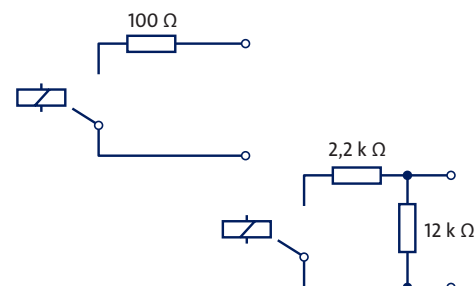
Device type	Contact module			
	19404	19408	19409	19412
Item no.	19404	19408	19409	19412
Contact sequence l/pulse	1	10	100	10
Contact	without Namur			with Namur
Pulse output	every 2 sec.			
Pulse duration	250 ms.	3 sec.	3 sec.	3 sec.
Pulse pause	> 250 ms.	> 3 sec.	> 3 sec.	> 3 sec.
Contact open	> 6 M Ω	> 6 M Ω	> 6 M Ω	> 12 k Ω
Contact closed	100 Ω	100 Ω	100 Ω	1,86 k Ω
Max. voltage	30 V			
Assembly	may be plugged in all istameter m			
Transmission technology	electronic, non-reactive, non-magnetic return flow detection			
Cable length	1.0 m			
Conductor cross section	2 x 0.25 mm ²			
Protection class	IP 65			
Temperature ranges				
Environment	+ 5 to + 55 °C			
Storage	- 5 to + 45 °C			
Transportation	- 20 to + 80 °C			
Lifetime	12 years + 1 year storage + 1 year reserve			

Contact module "contact"



Dimensions in mm

Contact with/without Namur



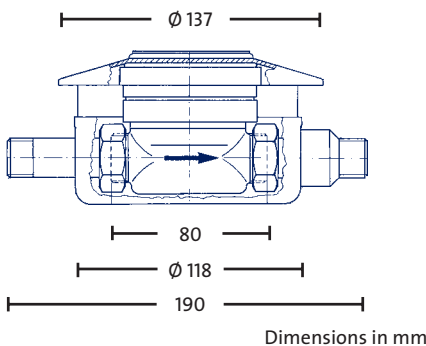
Installation options domaqua m

Flush mounting

domaqua m water meters for flush-mounting come in complete sets. Their core piece is the domaqua m with an installation length of 80 mm. The meter is installed in a flush-mounted box that is covered by a chrome-plated square collar. Equalising rings can be used to compensate the height of deep-lying flush-mounted boxes.

Dimens.	Type	Q _n ,m ³ /h	Item no.
R 1/2 15 mm	cold	1.5	16040
R 3/4 18 mm	cold	1.5	16041
22 mm	cold	1.5	16042
R 1/2 15 mm	hot	1.5	16050
R 3/4 18 mm	hot	1.5	16051
22 mm	hot	1.5	16052
Equalising ring, add.			16022
Scope of delivery			
<ul style="list-style-type: none"> Flush-mounted boxes domaqua m Q_n 1.5 m³/h, 80 mm, hot or cold Square collar, 137 mm Alternatively, square collar, 180 mm 			14109

Flush mounting

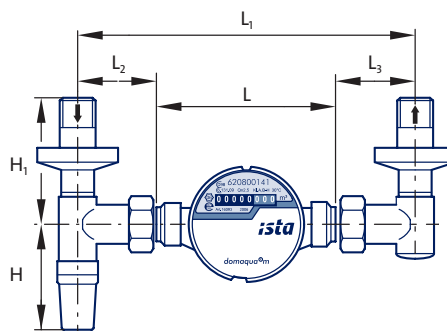


Installation in the residential area

The installation of the domaqua m in the flat area is conducted using a corner shut-off valve and a corner screw connection. The meters can be installed in horizontally- or vertically-running conductors.

Dimens.	Type	Item no.
R 1/2	Corner valve	17402
R 3/4	Corner valve	17403
R 1/2	Corner screw connection	17400
R 3/4	Corner screw connection	17401
mm	Q _n 1,5	Q _n 2.5
L =	80/110/130	130
L ₁ = min	156/186/206	207
L = max	166/196/216	217
L ₂ =	40	40
L ₃ = min	36	37
L ₃ = max	46	47
H =	60	55
H ₁ =	80	80

Installation in the residential area

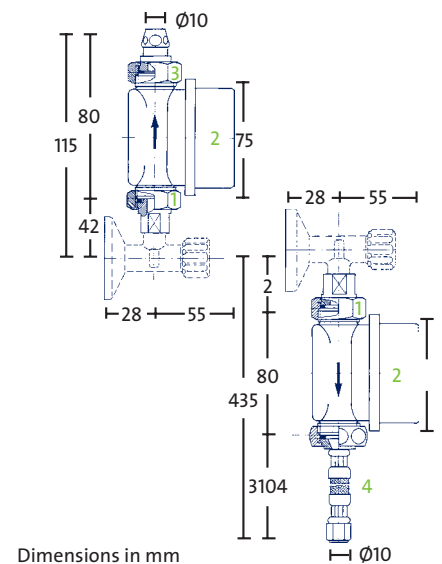


Installation in the bathroom or kitchen sink

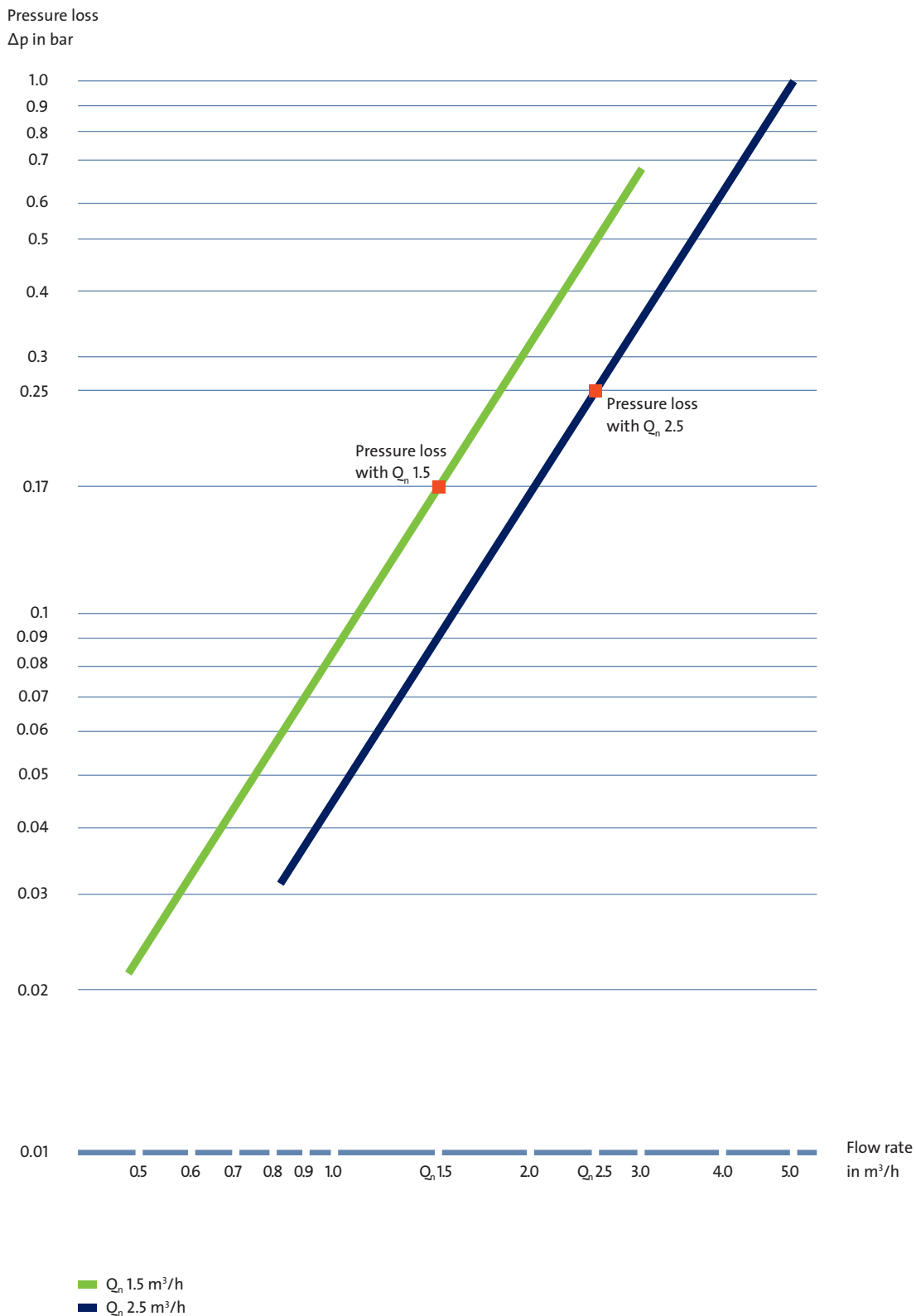
The core piece for installation in the bathroom or kitchen sink is the domaqua m with an installation length of 80 mm. The meter can be installed using special screws or, alternatively, a flexible pressure hose. The installation of the domaqua m to a water valve (e.g. for the washing machine) is possible with an adapter.

Position	Description	Item no.
1	Special screw connection	17503
2	domaqua m hot	16094
	domaqua m cold	16090
3	Special screw connection	17516
4	Altern. to 3, flex. pressure hose	17500
	Adapter for water nozzle without image	17312

Special screw connection



Pressure loss curves domaqua m



Residential water meters

Residential water meters

Multi-jet impeller meters are technically mature, solid and durable. They guarantee exact measuring results in the long term. Depending on the type of installation, they are suited for mounting in horizontal pipes or in vertical riser and downpipes.

Fully-dry meters for hot water

In the case of fully-dry meters with magnetic coupling, only the meter's impeller is in the wet area. Any deposits in the meter counter (especially due to limescale) are thus excluded.

Wet meters for cold water

As the classic allocation meter for higher levels of cold water consumption, this meter design stands out for its specifically low pressure losses.

Residential water meter cold



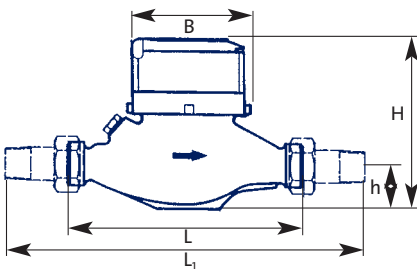
Residential water meter cold, riser pipe



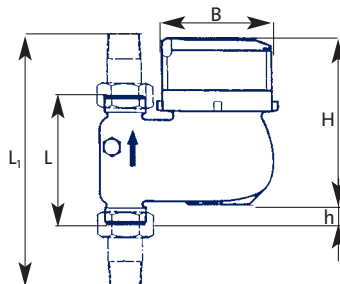
Residential water meter with integrated pulse output



Dimension drawing 1: horizontal design (Downpipe design for cold water)



Dimension drawing 2: Riser/downpipe design



Technical data

Design		Multi-jet						
		Fully dry meter (hot water)			Wet meter (cold water)			
Item no. Horizontal design		16773*	16774*	16775*	16776*	16777*	16778*	
Item no. Riser pipe design		16779*	16780*	16781*	16782*	16783*	16784*	
Item no. Downpipe design		16785	16786	16787	16776*/**	16777*/**	16778*/**	
Nominal flow rate	Q_n (m ³ /h)	2.5	6	10	2.5	6	10	
Maximum load	Q_{max} (m ³ /h)	5	12	20	5	12	20	
Cut-off limit	Q_t (m ³ /h)	0.25	0.6	1.0	0.25	0.6	1.0	
Lower measurement range limit	Q_{min} (l/h)	50	90	160	20/70***	40/160***	80/350***	
Installation dimensions in mm								
Dimension drawing 1: horiz. design	Nominal width	DN	20	25	40	20	25	40
	Installation length	L/L ₁	190/288	260/378	300/438	190/288	260/378	300/438
	Installation height	H/h	136/41	147/44	161/46	120/41	130/44	150/46
	Width	B	96	102	137	98	104	137
	Connection thread on meter acc. to ISO 228/1		G 1 B	G 1 1/4 B	G 2 B	G 1 B	G 1 1/4 B	G 2 B
	Connection thread on screws acc. to DIN 2999		R 3/4	R 1	R 1 1/2	R 3/4	R 1	R 1 1/2
Dimension drawing 2: Riser/downpipe design	Installation length	L/L ₁	105/203	150/268	200/338	105/203	150/268	200/338
	Installation height	H/h	135/18	145/22	157/46	118/18	130/22	147/46
	Width	B	96	102	136	98	101	136
	Connection thread on meter acc. to ISO 228/1		G 1 B	G 1 1/4 B	G 2 B	G 1 B	1 1/4 B	G 2 B
	Connection thread on screws acc. to DIN 2999		R 3/4	R 1	R 1 1/2	R 3/4	R 1	R 1 1/2
Item no. Screw connection, pair		17100	31800	31802	17100	31800	31802	
Solder		17105 22 mm	17110 28 mm	31812 42 mm	17105 22 mm	17110 28 mm	31812 42 mm	
Nominal temperature (safety) °C		90 (120)			30 (50)			
Nominal pressure		PN bar			10			
Testing pressure		PN bar			16			
Water consumption display		min. 0.1 l/max. 100.000 m ³						
Contact module for residential water meters								
Item no.		16791						
Contact sequence		Litres/pulse						
Cable length		Metres						
Reed switch sealed		Protection type						
Contact load		max. 24 V DC, 50 mA						
Residential water meters with integrated pulse output		Fully dry meter (hot water)						
Item no. Downpipe design		16788	16789	16790				
Water consumption display		min. 0.1 l/max. 100.000 m ³						
Contact sequence		(Litres/pulse)						
Cable length		Meters						
Calibration validity		5 years			6 years****			

* Meters can be equipped with the contact maker immediately or at a later point in time. Required in addition to the meter, item no. 16791

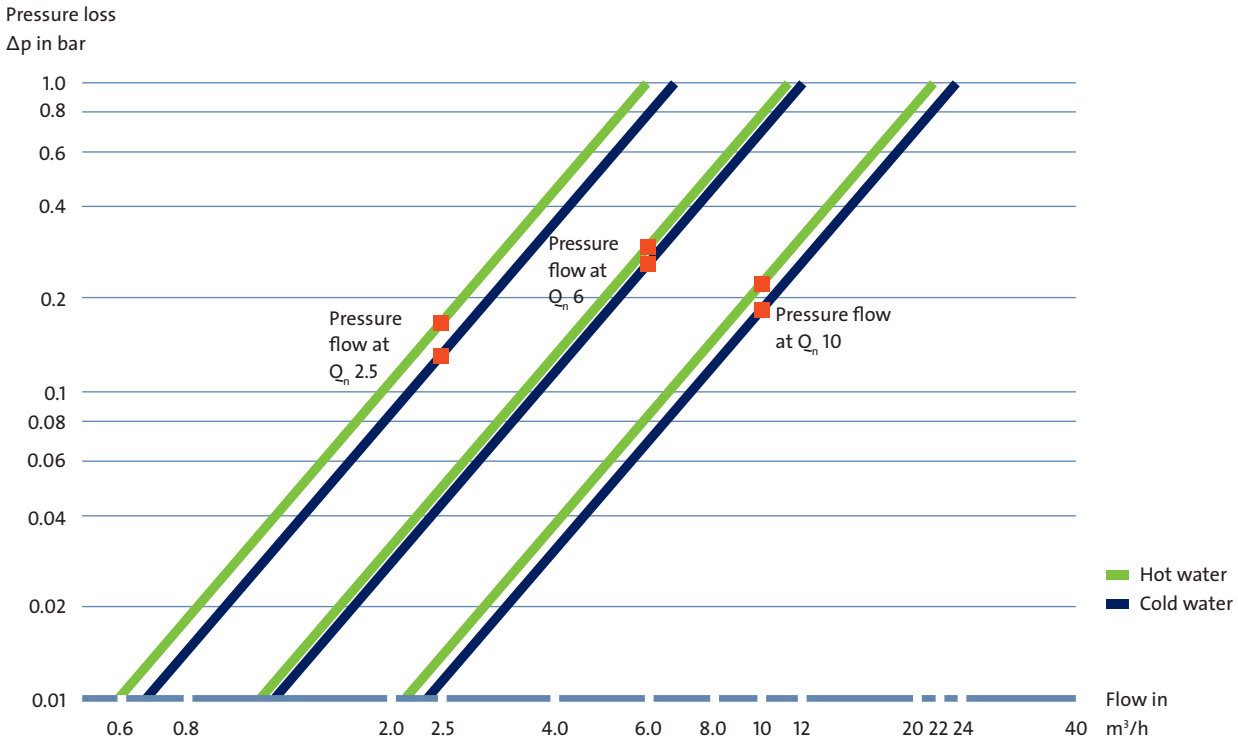
** Please note Installation dimensions acc. to dim. drawing 1

*** Values for downpipe design

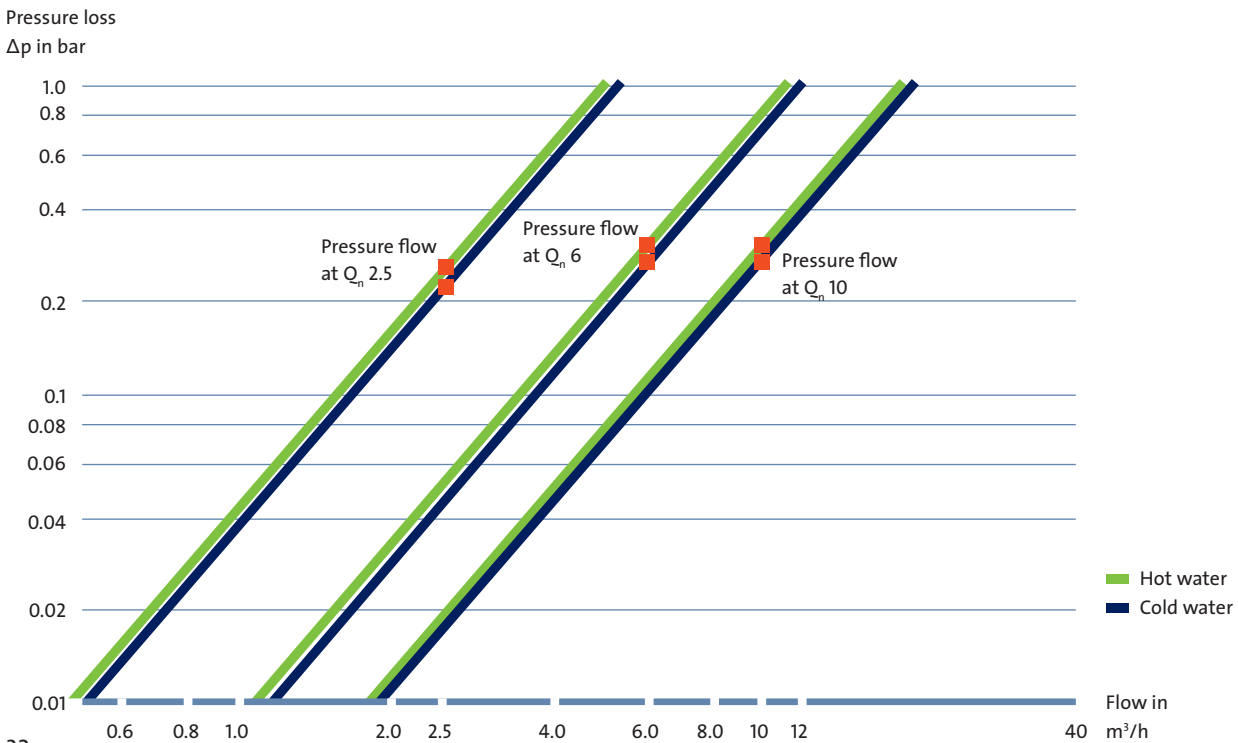
**** 5 years in Austria

Pressure loss curves

Residential water meters, horizontal



Residential water meters, vertical



Large water meters

ista large water meters

Large water meters are Woltman meters in the form of fully-dry meters with magnetic coupling. Even under extreme loads they guarantee an outstanding measuring accuracy throughout the entire measuring range, thanks to the wear- and friction-free positioning of the impeller (hard metal/ sapphire).

Woltman meters of the WS series may only be installed horizontally. In this series, the legal calibration requirements (metrologic classes A and B) are considerably surpassed, especially with smaller flow rates.

In contrast, Woltman meters of the WP series can be installed in horizontal conduits as well as in riser and downpipes. They stand out especially for their low pressure loss. The capsuled meter counters can be rotated, if desired, by 350° (for easy readability).

Woltman meters can be retrofitted with a pulse output. This is possible without damaging the calibration seal.

Large water meters WS



Large water meters WP



Large water meter variants

WS	DN	50-150
WP	DN	50-150

Explanations

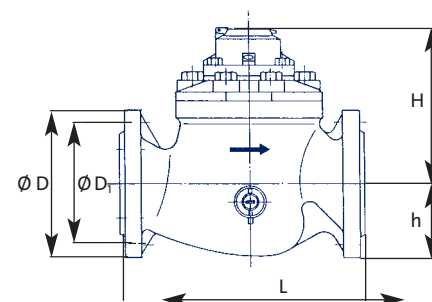
W	Woltman meter design
S	Vertical placement of the impeller in the meter
P	Parallel placement of the impeller in the meter
DN	Nominal width in mm

Technical data

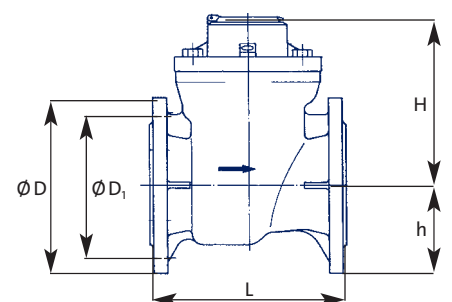
Design		Woltman meter							
		Hot water				Cold water			
Item no. Horizontal design	WS	16723	16724	16725	16726	16703	16704	16705	16706
Item no. Riser pipe design	WP	16733	16734	16735	16736	16713	16714	16715	16716
Item no. Downpipe design	WP	16753	16754	16755	16756	16743	16744	16745	16746
Nominal flow rate	Q_n (m ³ /h)	15	40	60	150	15	40	60	150
Maximum load	Q_{max} (m ³ /h)	50	110	140	350	50	110	180	350
Cut-off limit	Q_t (m ³ /h)	1.5	1.6	2.4	15	1.5	2.5	3	10
Lower measurement range limit	Q_{min} (l/h)	0.2	0.3	0.4	2.0	0.2	0.25	0.3	0.8
Weight	kg	14.2	24	28	79.5	14.5	24	28	79.5
Maximum load	Q_{max} (m ³ /h)	70	150	180	350	90	200	250	425
Cut-off limit	Q_t (m ³ /h)	2.25	6	9	22.5	1	2	2	12
Lower measurement range limit	Q_{min} (l/h)	0.6	1.6	2.0	4.5	0.3	0.5	0.6	2.5
Weight	kg	14.3	18.2	19.8	32.5	10.2	14.1	19.1	32.5
Installations dimensions in mm									
Nominal width	DN	50	80	100	150	50	80	100	150
Dimension drawing 1 installation length	L	270	300	360	500	270	300	360	500
Horizontal installation height	H/h	155/84	90/102	200/113	400/155	135/85	180/102	190/113	351/141
Dimension drawing 2 installation length	L	200	225	250	300	200	225	250	300
Riser pipe/downpipe installation height	H/h	200/75	200/92	200/110	217/145	123/75	140/94	140/106	212/135
Flange diameter	D	165	200	220	285	165	200	220	285
Hole circle diameter	D_1	125	160	180	240	125	160	180	240
Screw hole diameter		18	18	22	18	18	18	22	18
Number of screw		4	8	8	4	8	8	4	8
Nominal temperature (safety)	°C	90 (120)				30 (50)			
Nominal pressure		10							
Testing pressure		16							
Water consumption display		1		10		1		10	
		7-digit		8-digit		7-digit		8-digit	
Item no.		16891							
Reed contact	l/Imp.	100		1.000		100		1.000	
		1.000		10.000		1.000		10.000	
Calibration validity period	Hot water Cold water	5 years				6 years*			

* 5 years in Austria

Dimension drawing 1: WS series

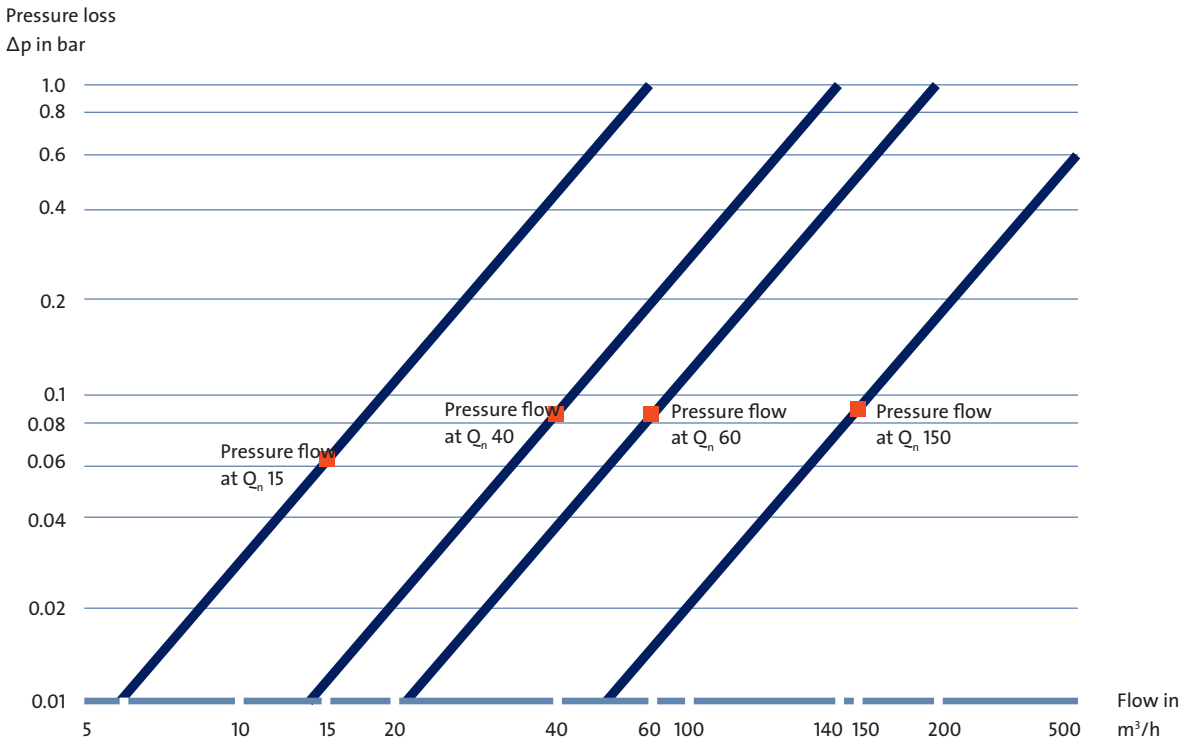


Dimension drawing 2: WP series

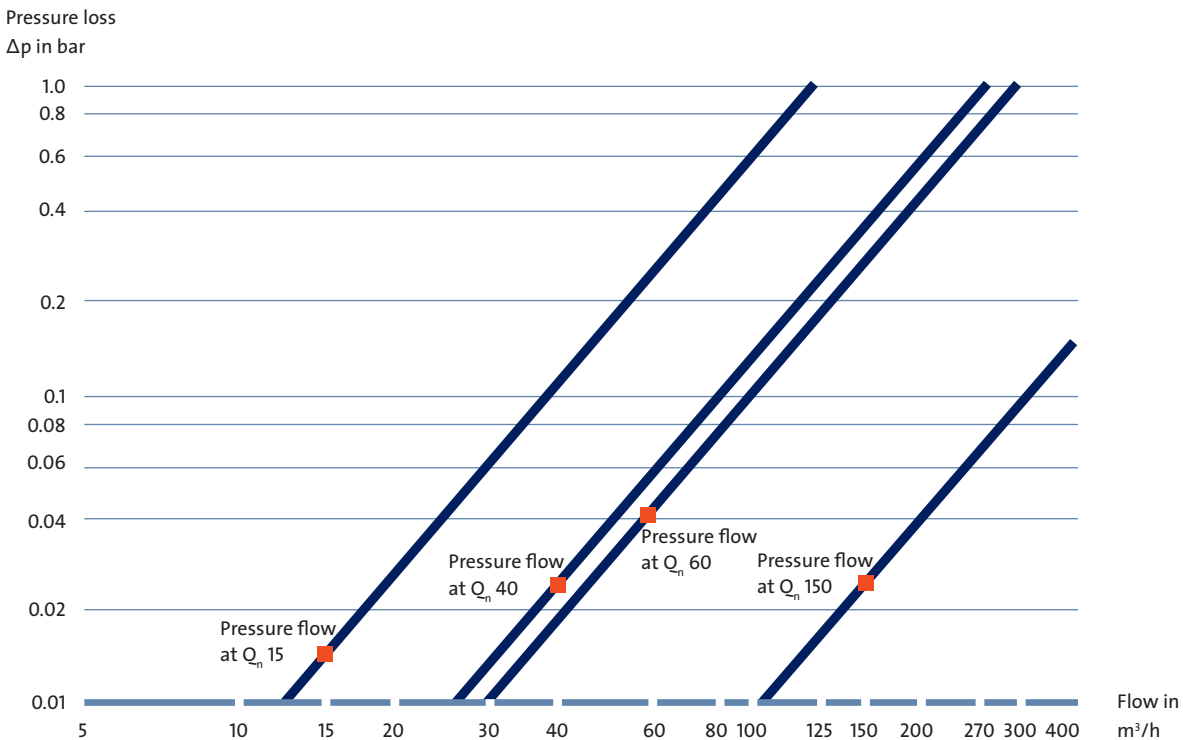


Pressure loss curves

Woltman meters of WS series for hot and cold water



Woltman meters of WP series for hot and cold water



ista Energy Solutions Limited

The Officers' Mess • Royston Road
Duxford • Cambridgeshire • CB22 4QH
Telephone +44 (0) 1223 874 974
info@ista-uk.com • www.ista.com/uk