

Technical Information

Water meters

- **Apartment water meters**
- **Modularis M-Bus module**
- **Connecting pieces and accessories**
- **Domestic water meters**



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Apartment water meter type ETK/ETW



Apartment water meter type ETK/ETW (single-jet dry-running meter) for horizontal or vertical installation

- As single-jet dry-running meter model
- For horizontal or vertical installation
- The rotary pulses of the impeller are transmitted without contact through a magnetic coupling that cannot be torn off to an easy-to-read 8-roller counter mechanism
- The counter mechanism can be rotated 360°
- Robust hot-pressed brass housing, available uncoated or chrome-plated
- Colour-coding of the lead-seal rings (red – hot water; blue – cold water)
- For the variety of implementation conditions, appropriate connection unions as well as special versions are available – apartment water meter for manifold, valve water meter fittings, etc.

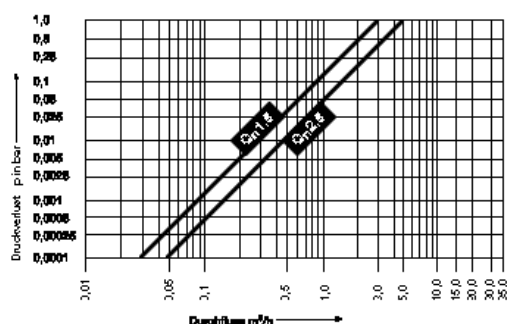
Area of implementation

Perm. excess operating pressure OP 16 bar
 Perm. operating temperature OT Cold water 30 °C
 Hot water 90 °C
 Medium: Drinking water in accordance with
 the Drinking Water Ordinance

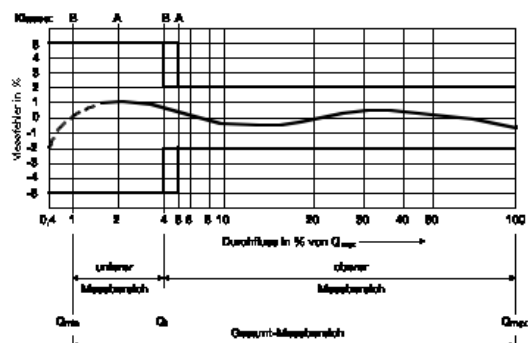
Model

Housing: Hot-pressed brass
Arithmetic unit: Plastic
 media-contacting components with KTW/W270 test
Approval: EEC approval, MID approval

Pressure loss curve

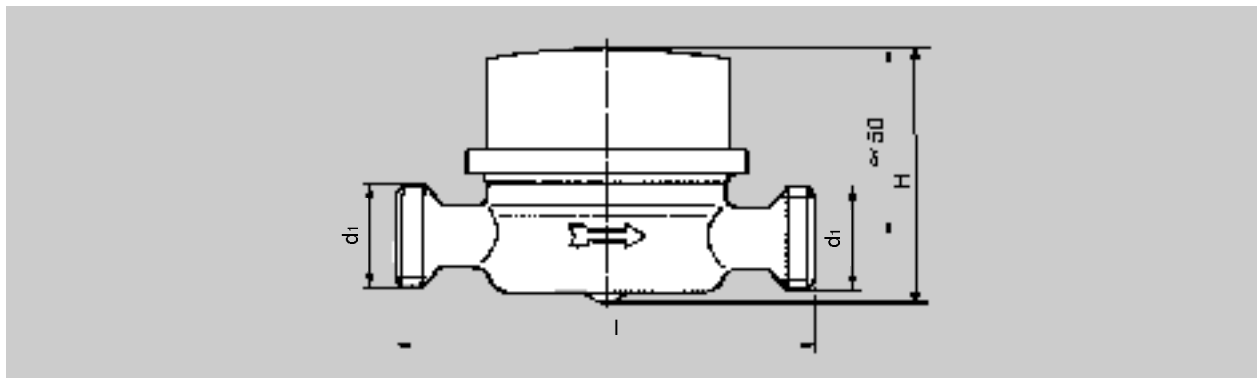


Measuring error curve (EEC approval)



Apartment water meter type ETK/ETW

Overall dimensions



Technical data

		Install length L	mm	80	110	130
EEC approval	Type (article no.)			683	681	688
	Nominal flow rate Q _n	m ³ /h		1.5	1.5	2.5
	Maximum flow rate Q _{max}	m ³ /h		3	3	5
	Metrological class			B-H/A-V	B-H/A-V	B-H/A-V
	Max. metrological class			B-H/A-V	C-H/A-V	B-H/A-V
MID approval	Type			ETK/ETW-EAV	ETK/ETW-EAV	ETK/ETW-EAV
	Nominal flow rate Q ₃	m ³ /h		2.5	2.5	4
	Maximum flow rate Q ₄	m ³ /h		3.1	3.1	5
	Metrological class			R80H/R50V	R80H/R50V	R80H/R50V
	Max. metrological class			R80H/R50V	R160H/R63V	R160H/R63V
	Nominal diameter	mm		15	15	20
	Connection thread d ₁			G ¾	G ¾	G 1
	Height H approx.	mm		69	69	69
	Weight approx.	kg		0.4	0.43	0.64
	Start approx.	l/h		8	8	15
	Display value, max.	m ³		100 000	100 000	100 000
	Display value, min.	l		0.05	0.05	0.05
	Flow at 1 bar pressure loss	l/h		3200	3200	5050
	Maximum operating pressure	bar		16	16	16

Product range

Apartment water meter Q_n 1.5 m³/h, BL 80 mm, art. 683

Model	PU	Order no.
Uncoated / cold	30	127 060 0
Uncoated / hot	30	127 061 0
Chrome-plated / cold	30	127 060 2
Chrome-plated / hot	30	127 061 2

Apartment water meter Q_n 1.5 m³/h, BL 110 mm, art. 681

Model	PU	Order no.
Uncoated / cold	30	127 006 0
Uncoated / hot	30	127 005 0
Chrome-plated / cold	30	127 006 2
Chrome-plated / hot	30	127 005 2

Apartment water meter Q_n 2.5 m³/h, BL 130 mm, art. 688

Model	PU	Order no.
Uncoated / cold	30	127 091 0
Uncoated / hot	30	127 092 0
Chrome-plated / cold	30	127 091 2
Chrome-plated / hot	30	127 092 2

Note: If ordered with MID approval the 7-digit order number must be supplemented with "B3" (e.g. 127 091 0 B3)

Apartment water meter type ETR



Apartment water meter type ETR (single-jet dry-running meter) for horizontal or vertical installation, LOC meter

- As single-jet dry-running meter model
- For horizontal or vertical installation
- The rotary pulses of the impeller are transmitted without contact through a magnetic coupling that cannot be torn off to an easy-to-read 8-roller counter mechanism
- The counter mechanism can be rotated 360°
- Robust hot-pressed brass housing, available uncoated or chrome-plated
- Colour-coding of the lead-seal rings (red – hot water; blue – cold water)

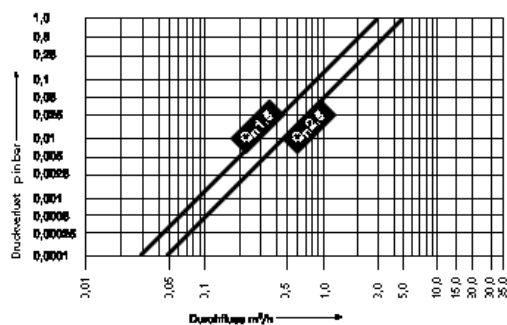
Area of implementation

Perm. excess operating pressure OP 10 bar
 Perm. operating temperature OT Cold water 30 °C
 Hot water 90 °C
 Medium: Drinking water in accordance with the Drinking Water Ordinance

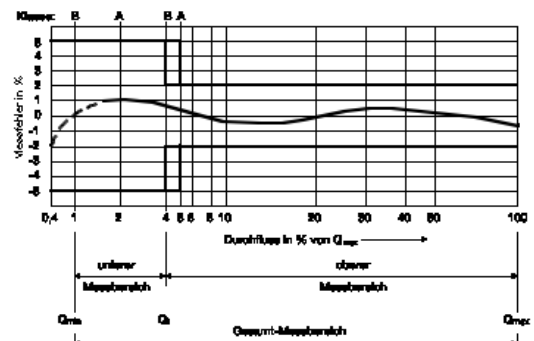
Model

Housing: Hot-pressed brass
Arithmetic unit: Plastic
Approval: EEC approval

Pressure loss curve

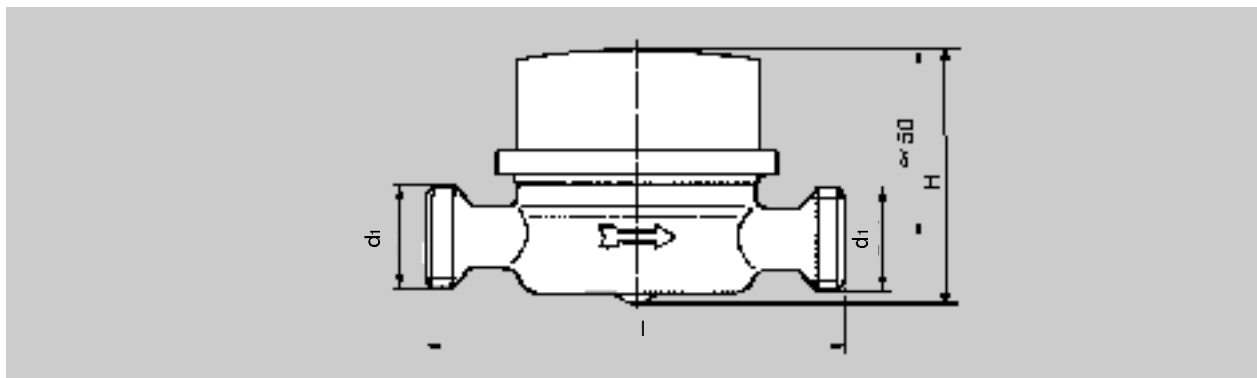


Measurement error curve



Apartment water meter type ETR

Overall dimensions



Technical data

Install length L	mm	80	110	130
Type (article no.)		683 Loc	681 Loc	688 Loc
Nominal flow rate Q _n	m ³ /h	1.5	1.5	2.5
Maximum flow rate Q _{max}	m ³ /h	3	3	5
Metrological class		B-H/A-V	B-H/A-V	B-H/A-V
Nominal diameter	mm	15	15	20
Connection thread d ₁		G ¾	G ¾	G 1
Height H approx.	mm	69	69	69
Weight approx.	kg	0.4	0.43	0.64
Start approx.	l/h	12	12	20
Display value, max.	m ³	100 000	100 000	100 000
Display value, min.	l	0.05	0.05	0.05

Product range

**Apartment water meter Q_n 1.5 m³/h, BL 80 mm,
art. 683 LOC**

Model	PU	Order no.
Chrome-plated/cold	30	128 006 2
Chrome-plated/hot	30	128 007 2

**Apartment water meter Q_n 1.5 m³/h, BL 110 mm,
art. 683 LOC**

Model	PU	Order no.
Chrome-plated/cold	30	128 008 2
Chrome-plated/hot	30	128 009 2

**Apartment water meter Q_n 2.5 m³/h, BL 130 mm,
art. 683 LOC**

Model	PU	Order no.
Chrome-plated/cold	30	128 010 2
Chrome-plated/hot	30	128 011 2

Apartment water meter type ETK/ETW pulse output



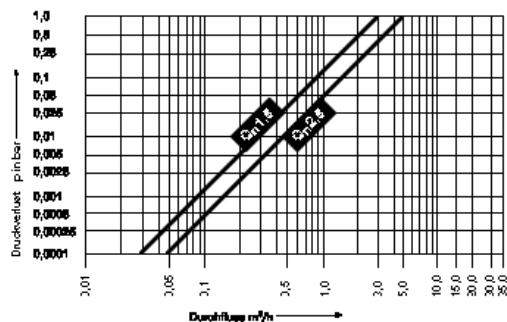
Apartment water meter type ETK/ETW pulse output (single-jet dry-running meter) for horizontal or vertical installation

- As single-jet dry-running meter model
- For horizontal or vertical installation
- The rotary pulses of the impeller are transmitted without contact through a magnetic coupling that cannot be torn off to an easy-to-read 5-roller counter mechanism
- The counter mechanism can be rotated 360°
- Robust hot-pressed brass housing, available uncoated or chrome-plated
- Colour-coding of the lead-seal rings (red – hot water; blue – cold water)
- For the variety of implementation conditions, appropriate connection unions as well as special versions are available – apartment water meters for manifold, valve water meter fittings, etc.

Area of implementation

Perm. excess operating pressure OP 16 bar
 Perm. operating temperature OT Cold water 30 °C
 Hot water 90 °C
 Medium: Drinking water in accordance with the Drinking Water Ordinance

Pressure loss curve



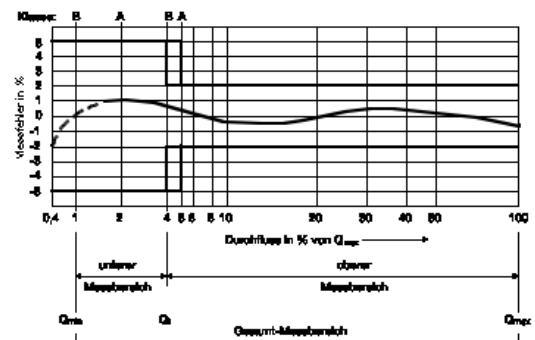
Model

Housing: Hot-pressed brass

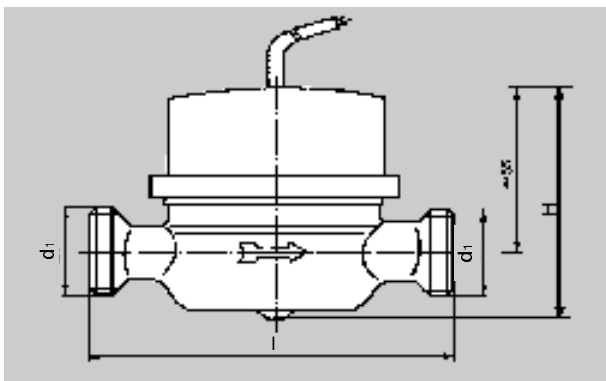
Arithmetic unit: Plastic media-contacting components with KTW/W270 test

Approval: EEC approval, MID approval

Measuring error curve (EEC approval)



Overall dimensions



Technical data – pulse output

Cable length:	2 m
Pulse value:	100 or 10 liter/pulse
Contact load:	to 10 W
Switching DC voltage:	to 200 V
Switching current:	to 500 W
Switching time:	0.5 ms
Transfer resistance:	150 mOhm
Capacitance:	0.2 pF

Apartment water meter type ETK/ETW pulse output

Technical data

		Install length L	mm	80	110	130
EEC approval	Type (article no.)			684.4	684.2	684.5
	Nominal flow rate Q _n	m ³ /h		1.5	1.5	2.5
	Maximum flow rate Q _{max}	m ³ /h		3	3	5
	Metrological class			B-H/A-V	B-H/A-V	B-H/A-V
	Max. metrological class			B-H/A-V	C-H/A-V	B-H/A-V
MID approval	Type			ETK/ETW-EAK	ETK/ETW-EAK	ETK/ETW-EAK
	Nominal flow rate Q ₃	m ³ /h		2.5	2.5	4
	Maximum flow rate Q ₄	m ³ /h		3.1	3.1	5
	Metrological class			R80H/R50V	R80H/R50V	R80H/R50V
	Max. metrological class			R80H/R50V	R160H/R63V	R160H/R63V
		Nominal diameter	mm	15	15	20
		Connection thread d ₁		G ¾	G ¾	G 1
		Height H approx.	mm	79	79	79
		Weight approx.	kg	0.4	0.43	0.64
		Start approx.	l/h	8	8	15
		Display value, max.	m ³	100 000	100 000	100 000
		Display value, min.	l	0.05	0.05	0.05
		Flow at 1 bar pressure loss	l/h	3200	3200	5050
		Maximum operating pressure	bar	16	16	16

Product range

Apartment water meter Q_n 1.5 m³/h, BL 80 mm; art. 684.4

Model	Pulse	PU	Order no.
Uncoated/cold	10	30	127 566 0
Uncoated/cold	100	30	127 562 0
Chrome-plated/cold	10	30	127 566 2
Chrome-plated/cold	100	30	127 562 2
Uncoated/hot	10	30	127 567 0
Uncoated/hot	100	30	127 563 0
Chrome-plated/hot	10	30	127 567 2
Chrome-plated/hot	100	30	127 563 2

Apartment water meter Q_n 1.5 m³/h, BL 110 mm; art. 684.2

Model	Pulse	PU	Order no.
Uncoated/cold	10	30	127 508 0
Uncoated/cold	100	30	127 510 0
Chrome-plated/cold	10	30	127 508 2
Chrome-plated/cold	100	30	127 510 2
Uncoated/hot	10	30	127 507 0
Uncoated/hot	100	30	127 511 0
Chrome-plated/hot	10	30	127 507 2
Chrome-plated/hot	100	30	127 511 2

Apartment water meter Q_n 2.5 m³/h, BL 130 mm; art. 684.5

Model	Pulse	PU	Order no.
Uncoated/cold	100	30	127 583 0
Uncoated/cold	10	30	127 581 0
Chrome-plated/cold	100	30	127 583 2
Chrome-plated/cold	10	30	127 581 2
Uncoated/hot	100	30	127 582 0
Uncoated/hot	10	30	127 580 0
Chrome-plated/hot	100	30	127 582 2
Chrome-plated/hot	10	30	127 580 2

Note: If ordered with MID approval the 7-digit order number must be supplemented with "B3" (e.g. 127 091 0 B3)

Apartment water meter type ETK/ETW

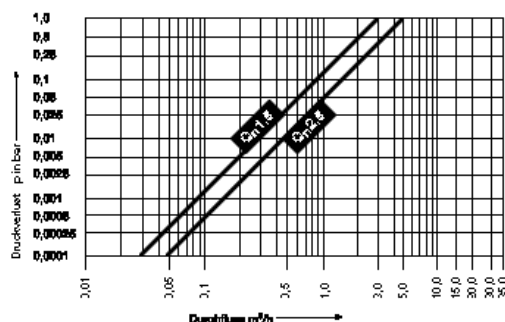


Area of implementation

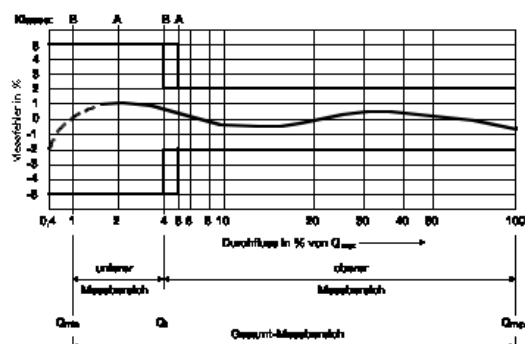
Perm. excess operating pressure OP 16 bar
Perm. operating temperature OT Cold water 30 °C
Hot water 90 °C

Medium: Drinking water in accordance with the Drinking Water Ordinance

Pressure loss curve



Measurement error curve



Product range

Apartment water meter Q_n 1.5 m³/h, BL 110 mm, art. 682

Model	PU	Order no.
Cold	30	127 028 0
Hot	30	127 027 0

Apartment water meter type ETK/ETW spider meter (single-jet dry-running meter) for horizontal or vertical installation

- As single-jet dry-running meter model
- For horizontal or vertical installation
- The rotary pulses of the impeller are transmitted without contact through a magnetic coupling that cannot be torn off to an easy-to-read 8-roller counter mechanism
- The counter mechanism can be rotated 360°
- Robust hot-pressed brass housing, available uncoated or chrome-plated
- Colour-coding of the lead-seal rings (red – hot water; blue – cold water)

Model

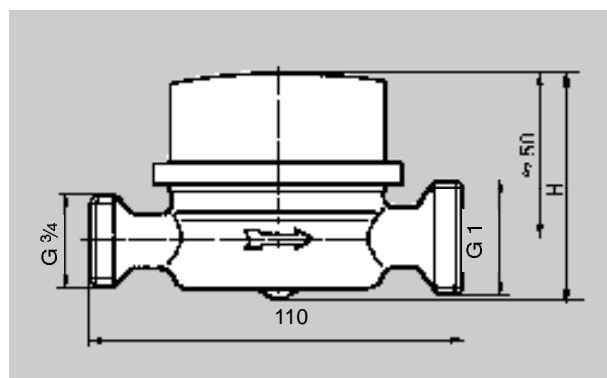
Housing: Hot-pressed brass

Arithmetic unit: Plastic

media-contacting components with KTW/W270 test

Approval: EEC approval

Overall dimensions



Technical data

Install length L	mm	110
Type (article no.)		682
Nominal flow rate Q_n	m³/h	1.5
Maximum flow rate Q_{max}	m³/h	3
Metrological class		B-H/A-V
Nominal diameter	mm	15
Connection thread		G 3/4/G 1
Height H approx.	mm	69
Weight approx.	kg	0.43
Start approx.	l/h	12
Display value, max.	m³	100 000
Display value, min.	l	0.05

Apartment water meter type ETK/ETW



Area of implementation

Perm. excess operating pressure OP 16 bar
 Perm. operating temperature OT Cold water 30 °C
 Hot water 90 °C
 Medium: Drinking water in accordance with
 the Drinking Water Ordinance

Curve: Page 4

Technical data: Page 4

Garden water meter connection set Qn 1.5 m³/h

- As single-jet dry-running meter model
- For horizontal or vertical installation
- The rotary pulses of the impeller are transmitted without contact through a magnetic coupling that cannot be torn off to an easy-to-read 8-roller counter mechanism
- The counter mechanism can be rotated 360°
- Robust hot-pressed brass housing, available uncoated or chrome-plated
- Colour-coding of the lead-seal rings (red – hot water; blue – cold water)
- Incl. protective cap for water meter
- Incl. threaded connection for discharge valve and hose connection

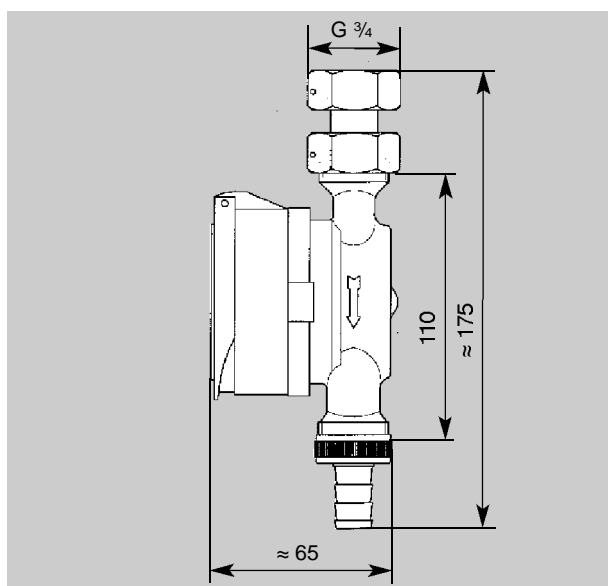
Model

Housing: Hot-pressed brass

Arithmetic unit: Plastic
 media-contacting components with KTW/W270 test

Approval: EEC approval, MID approval on request

Overall dimensions

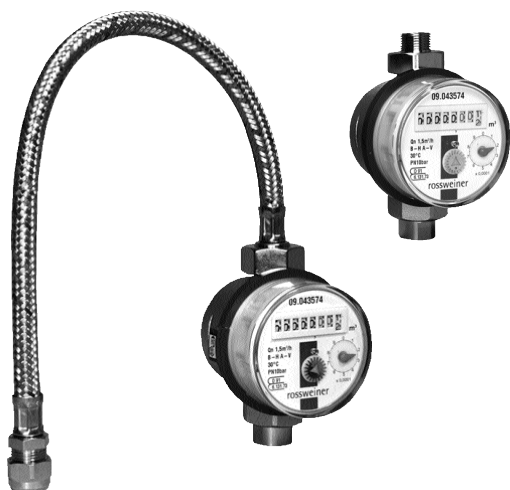


Product range

**Water meter connection set with
apartment water meter Qn 1.5 m³/h**

Model	PU	Order no.
Chrome-plated	20	127 126 2

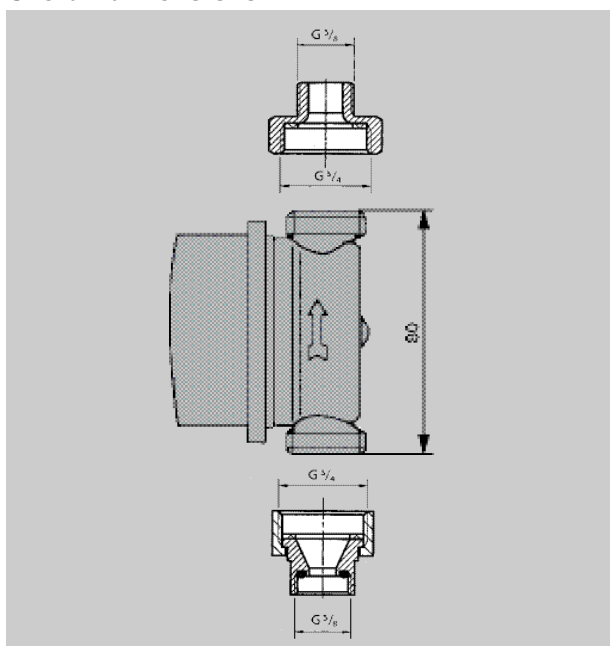
Apartment water meter type ETK/ETW



Curve: Page 4

Technical data: Page 4

Overall dimensions



Product range

Water meter connection set for corner valve with apartment water meter Qn 1.5 m³/h

Model	PU	Order no.
WM cold	20	127 069 4
WM hot	20	127 069 5

Water meter connection set Qn 1.5 m³/h for corner valve with silicone PZ hose (DIN-DVGW)

- As single-jet dry-running meter model, install length 80 mm
- For horizontal or vertical installation
- The counter mechanism can be rotated 360°
- Robust hot-pressed brass housing, chrome-plated
- Colour-coding of the lead-seal rings (red – hot water; blue – cold water)

Area of implementation

Perm. excess operating pressure OP 16 bar
 Perm. operating temperature OT Cold water 30 °C
 Hot water 90 °C

Medium: Drinking water in accordance with the Drinking Water Ordinance

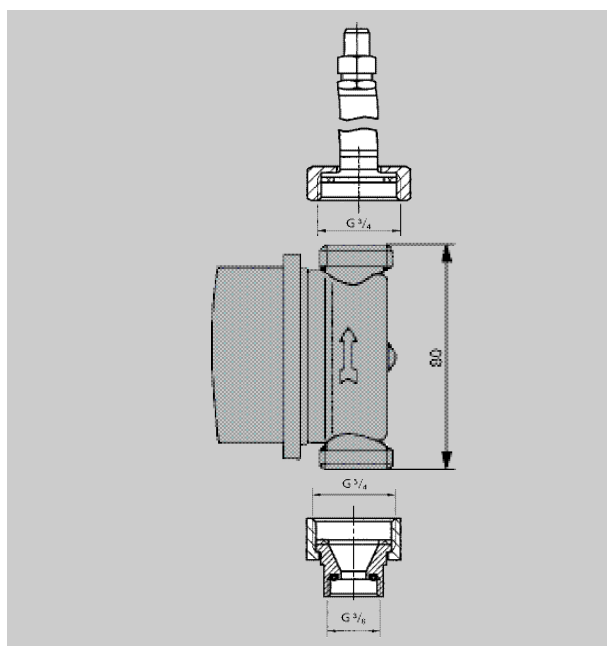
Model

Housing: Hot-pressed brass

Arithmetic unit: Plastic

media-contacting components with KTW/W270 test

Approval: EEC approval, (MID approval on request)



Water meter connection set for corner valve with silicone PZ hose (DIN-DVGW) and apartment water meter Qn 1.5 m³/h

Model	PU	Order no.
WM cold	20	127 126 5
WM hot	20	127 126 6

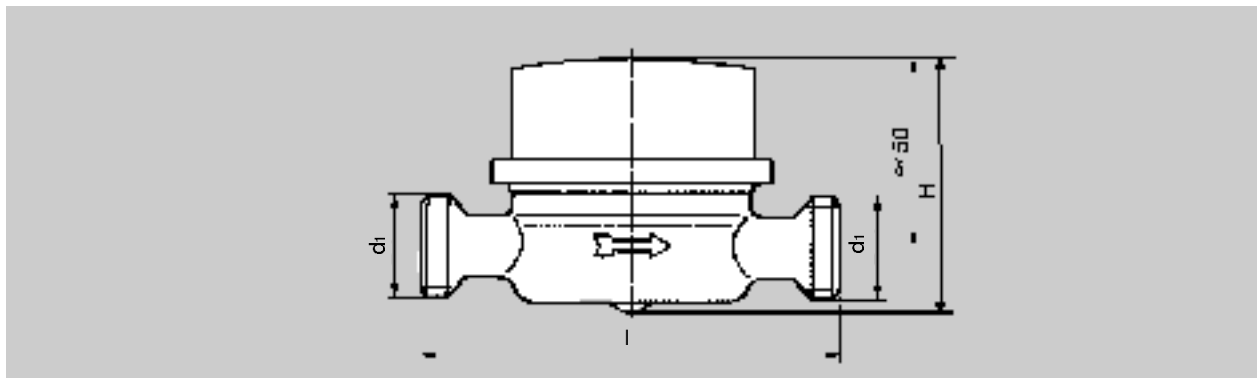
- Single-jet dry-running meter
- For horizontal or vertical installation
- Optimal install position thanks to counter mechanism that rotates 360°
- Low start threshold
- Materials optimised for slide friction
- Easy handling and integration in a variable modern meter communication system
- Easy retrofitting of the basic meter on site, through clip-on modules
- Standard equipment for connection to remote-controlled metering systems
- Can be retrofitted at any time – future safe
- Retrofit without violating the calibration
- When changing the meter modules can still be used

Perm. excess operating pressure OP 16 bar
Perm. operating temperature OT Cold water 30 °C
 Hot water 90 °C
Medium: Drinking water in accordance with
 the Drinking Water Ordinance

Housing: Hot-pressed brass chrome-plated
Arithmetic unit: Plastic
media-contacting components with KTW / W270 test
Approval: EEC approval, MID approval

Apartment water meter type ETK/ETW Modularis

Overall dimensions



Technical data

		Install length L	mm	80	110	130
EEC approval	Nominal flow rate Q _n	m³/h		1.5	1.5	2.5
	Maximum flow rate Q _{max}	m³/h		3	3	5
	Metrological class			B-H/A-V	B-H/A-V	B-H/A-V
	Max. metrological class			B-H/A-V	C-H/A-V	B-H/A-V
MID approval	Type			ETK/ETW-EAX	ETK/ETW-EAX	ETK/ETW-EAX
	Nominal flow rate Q ₃	m³/h		2.5	2.5	4
	Maximum flow rate Q ₄	m³/h		3.1	3.1	5
	Metrological class			R80H/R50V	R80H/R50V	R80H/R50V
	Max. metrological class			R80H/R50V	R160H/R63V	R160H/R63V
	Nominal diameter	mm		15	15	20
	Connection thread d ₁			G ¾	G ¾	G 1
	Height H approx.	mm		69	69	69
	Weight approx.	kg		0.4	0.43	0.64
	Start approx.	l/h		18	8	15
	Display value, max.	m³		100 000	100 000	100 000
	Display value, min.	l		0.05	0.05	0.05
	Flow at 1 bar pressure loss	l/h		3200	3200	5050
	Maximum operating pressure	bar		16	16	16

Product range

Apartment water meter Q_n 1.5 m³/h, BL 80 mm

Model	PU	Order no.
Cold	30	127 450 2
Hot	30	127 451 2

Apartment water meter Q_n 2.5 m³/h, BL 130 mm

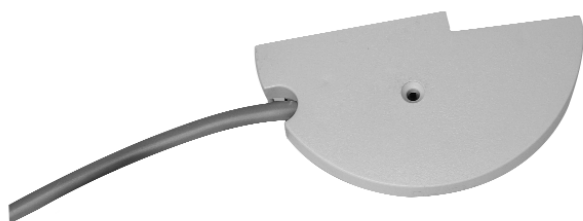
Model	PU	Order no.
Cold	30	127 470 2
Hot	30	127 471 2

Apartment water meter Q_n 1.5 m³/h, BL 110 mm

Model	PU	Order no.
Cold	30	127 460 2
Hot	30	127 461 2

Note: If ordered with MID approval the 7-digit order number must be supplemented with "B3" (e.g. 127 091 0 B3)

Modularis S0 pulse generator



Impulse generator for water meter with Modularis counter mechanism Qn 1.5 – 10 m³/h

- Can be retrofitted at any time – future safe
- Optical scanning process
- Adaptive adjustment of the parameters to the water meter
- Model with an optical pulse generator
- Scan security through utilisation of a self-optimising hysteresis
- Low energy consumption
- Integrated cable for connection to external meter modules

Technical data

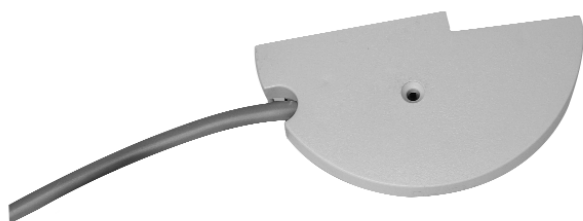
Parameters	Value
Power supply	Battery, internal
Service life	≥ 6 years
Type of pulse output	Open drain, to 30 mA
Dielectric strength	30 V
Internal resistance	> 200 Ohm
Pulse length	> 45 ms
Maximum flow rate	20,000 pulses/h
Pulse value	1
Operating temperature	0 °C to 60 °C
Storage temperature	–25 °C to 60 °C
Test mark	CE
Connecting cable	2 lines, 1 m
Install position	any
Connection	brown – earth, white – open collector
Degree of protection	IP 65
EMC	EN 55011, ENV 50204

Product range

Pulse generator

Model	PU	Order no.
	30	127 500 2

Modularis M-BUS module



M-BUS module for water meter with Modularis counter mechanism Qn 1.5–10 m³/h

- Scan security
- Low energy consumption
- Robust execution, potted electronics
- Power supply per BUS
- Buffer battery in the module
- Self-calibration function
- Configuration per software
- For single-jet and multi-jet meters, dry-running meters

Technical data

Parameters	Value
Power supply without M-bus module	Approx. 13 µA mean value
Battery	CR2032 FV-LF RENATA 225 mAh
Service life without M-bus module	Approximately 2 years
Max. flow rate	QN10 (scan rate 38 mms)
Number of sensors	2
Flow/return detection	Up to 255 pulses are counted backward
Pulse measuring and processing time	200 µs per sensor (sensor 2 only as needed)
Data rate on the M-BUS	2400 baud can be set to 300 baud
Max. telegram length – receive	0.17 s (2400 baud); 1.3 s (300 baud)
Max. telegram length – transmit	0.7 s (2400 baud); 5.6 s (300 baud)
Processing time 8 bit (send/receive buffer) = longest possible measurement interrupt	3.3 ms (2400 baud); 26.6 ms (300 baud)
Primary address	0–250 (specified by user)
Secondary address (ID / device number)	0–8 digit (specified by the user) at delivery like serial number
Serial number	0–8 digit (specified by manufacturer) cannot be changed by user
Manufacturer ID	3-digit (e.g. RAM or WZG) permanent in the code
Degree of protection	IP 65

Product range

M-Bus module

Model	PU	Order no.
M-BUS module	1	127 500 2

Apartment water meter flush-mounted modular



Area of implementation

Perm. excess operating pressure OP 16 bar
 Perm. operating temperature OT Cold water 30 °C
 Hot water 90 °C
 Medium: Drinking water in accordance with
 the Drinking Water Ordinance

Technical data

EEC approval	Nominal flow rate Q_n	m ³ /h	1.5
	Maximum flow rate Q_{max}	m ³ /h	3
	Metrological class	B-H/A-V	
MID approval	Type	MTK/MTW-OZ	
	Nominal flow rate Q_3	m ³ /h	2.5
	Maximum flow rate Q_4	m ³ /h	3.1
	Metrological class	R80H/R40V	
	Nominal diameter	mm	15
	Connection thread d_1	G 3/4	
	Weight approx.	kg	0.43
	Start approx.	l/h	10
	Display value, max.	m ³	100 000
	Display value, min.	l	0.05
	Flow at 1 bar pressure loss	l/h	3300
	Maximum operating pressure	bar	16

Apartment water meter Modularis Qn 1.5 m³/h in flush-mount model

(multi-jet dry-running meter)

- Compatible with existing housing systems from various manufacturers with PTB approval
- Expensive adaptations are not necessary
- High degree of installation security
- Reduction of supplier diversity
- Incl. lead seal ring suitable for all variants
- Suitable for the rosettes available on the market (spacer ring included in the scope of delivery)
- One mounting spanner for all variants
- Prepared for modern meter communication (pulse, radio, M-bus)
- With direction of rotation detection

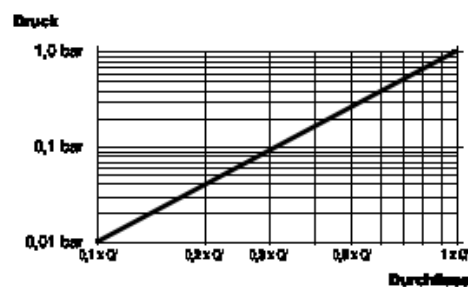
Model

Housing: Hot-pressed brass

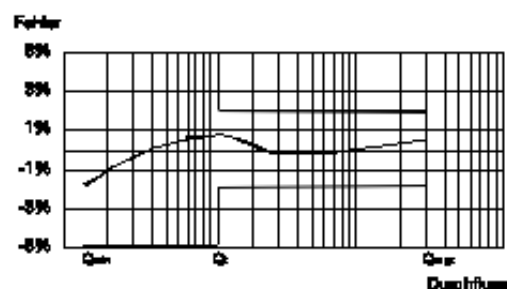
Arithmetic unit: Plastic media-contacting components with KTW/W270 test

Approval: EEC approval, MID approval

Pressure loss curve

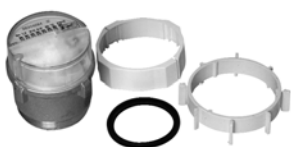


Measurement error curve



Apartment water meter flush-mounted modular

Overall dimensions



Product line – MODULAR IE

suitable for: Rossweiner, ista, Siemens

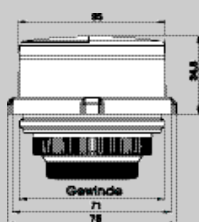
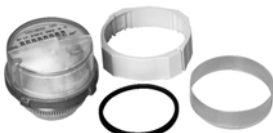
Model	Weight kg	Connection thread	PU	Order no.
Cold water	0.338	G 2B	1	127 480 2
Hot water	0.338	G 2B	1	127 481 2



Product line – MODULAR MM

suitable for: Modular meter ABB (MO-E and MO-C)

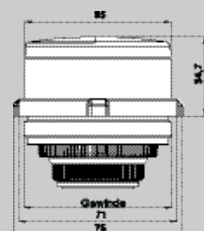
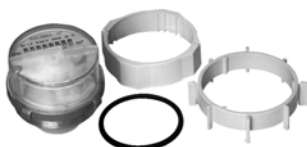
Model	Weight kg	Connection thread	PU	Order no.
Cold water	0.226	M65x2	1	127 482 0
Hot water	0.226	M65x2	1	127 483 0



Product range

suitable for: Metrona-Brunata, HT3

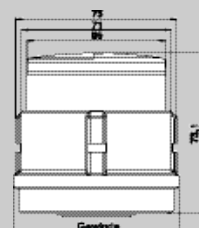
Model	Weight kg	Connection thread	PU	Order no.
Cold water	0.223	M64x2	1	127 484 0
Hot water	0.223	M64x2	1	127 485 0



Product range

suitable for: SPX PolluMuk

Model	Weight kg	Connection thread	PU	Order no.
Cold water	0.223	M64x2	1	127 486 0
Hot water	0.223	M64x2	1	127 487 0



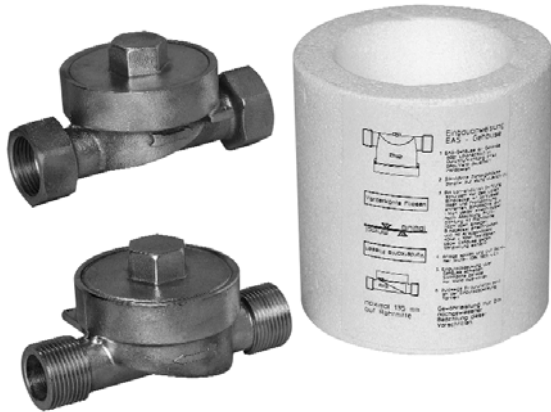
Product range

suitable for: Allmess, UP 6000

Model	Weight kg	Connection thread	PU	Order no.
Cold water	0.495	M77x1.5	1	127 488 0
Hot water	0.495	M77x1.5	1	127 489 0

Note: If ordered with MID approval the 7-digit order number must be supplemented with "B3" (e.g. 127 091 0 B3)

EAS housing kit for apartment water meter



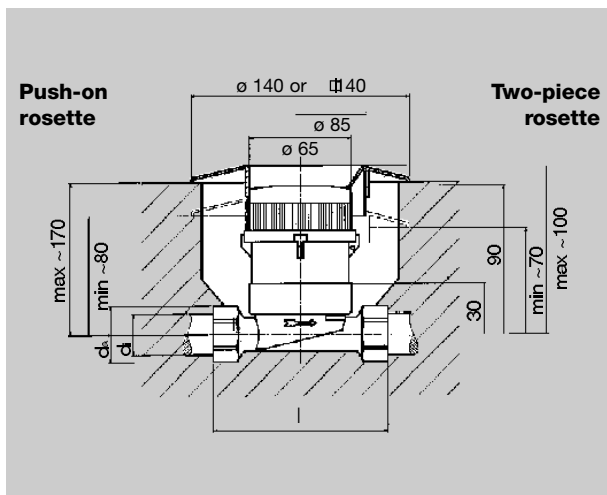
Apartment water meter in flush-mounted model – housing installation kit

- Universal implementation EAS coax housing (2") suitable for measuring cartridge MODULAR IE
- Compatible with numerous other systems
- Robust housing with soldered and/or threaded connections with blind cover and flush-mount aid for the first installation
- Available in brass or red bronze model

Areas of implementation

Perm. excess operating pressure OP 10 bar
 Perm. operating temperature OP 90 °C
 Medium: Drinking water

Overall dimensions



I	Internal thread di	External thread da	Soldered connection di
110		AG G ¾	18 mm
110	IG G ½	–	–
110	–	AG G ½	15 mm
110	–	–	22 mm

Product range

Housing kit hot-pressed brass –

Single-pipe connector piece for flush-mounted meter, MODULAR IE (coax 2"), incl. blind cover, seal, flush-mount aid

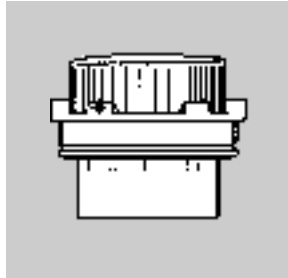
Soldered connection	Thread	PU	Order no.
–	IG G ½	1	127 653 0
15 mm	AG G ½	1	127 654 0
18 mm	AG G ¾	1	127 652 0
22 mm	–	1	127 655 0

Housing kit red-bronze –

Single-pipe connector piece for flush-mounted meter, MODULAR IE (coax 2"), incl. blind cover, seal, flush-mount aid

Soldered connection	Thread	PU	Order no.
–	IG G ½	1	127 673 0
15 mm	AG G ½	1	127 674 0
18 mm	AG G ¾	1	127 672 0
22 mm	–	1	127 675 0

Apartment water meter type ETK/ETW



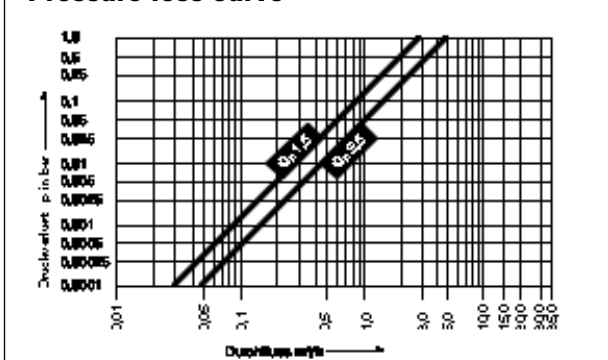
Apartment water meter flush-mounted model – single-jet, dry-running meter – replacement cartridge

- 8-roller counter mechanism can be rotated 360°
- Easy replacement of the measuring capsule (e.g. after the calibration period elapses)
- Proven design as single-jet dry-running meter
- High-quality carbide metal sapphire bearing of the impeller guarantees high measuring stability
- Compatible with numerous other systems

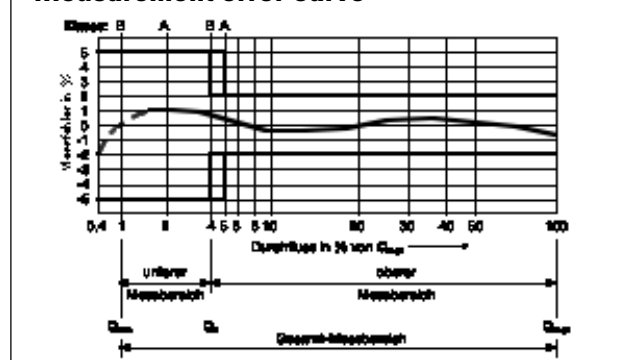
Technical data

Nominal flow rate Qn		m³/h	1.5
Maximum flow rate Qmax		m³/h	3
Metrological class			B-H/A-V
Nominal diameter		mm	15
Weight approx.		kg	0.42
Start approx.		l/h	12
Display value, max.		m³	100 000
Display value, min.		l	0.05
Maximum operating temperature	Cold water	°C	30
	Hot water	°C	90
Maximum operating pressure		bar	10

Pressure loss curve



Measurement error curve



Areas of implementation

Perm. excess operating pressure OP 10 bar
 Perm. operating temperature OT
 Cold water + 30 °C
 Hot water + 90 °C

Medium: Drinking water in accordance with the Drinking Water Ordinance

Approval: EEC approval

Product range

Model	PU	Order no.
Cold water	1	178 055 0
Hot water	1	178 055 5

Accessories

Accessories for apartment water meter in flush-mounted model



Rosette – rectangular (2-piece, discontinued model)

Inner diameter 65 mm, outer diameter 140 mm

Protective sleeve, short	1	178 057 0
Rosette – rectangular	1	178 056 0



Rosette – round (2-piece)

Inner diameter 65 mm, outer diameter 140 mm

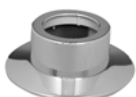
Protective sleeve, short	1	178 057 0
Rosette – round	1	178 056 1



Push-on rosette (1-piece)

Inner diameter 65 mm, outer diameter 140 mm

1	127 665 2
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Correction rosette (3-piece)

Inner diameter 65 mm, (if the meter is too far in front of the wall)

1	127 868 2
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Blind cap (1-piece)

for flush-mounted rosette

Outer diameter 65 mm

Single-piece	1	178 056 2
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Mounting wrench

Metal for multi-jet dry-running meter

1	178 054 6
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Mounting wrench

Metal for single-jet dry-running meter

1	178 054 4
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Pull-off device

For dismantling the measuring cartridge for single-jet dry-running meters

1	178 054 8
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Connecting pieces and accessories



Garden water meter connection set

chrome-plated, consisting of: Threaded connection for discharge valve $\frac{3}{4} \times \frac{3}{4}$, protective cap for water meter, hose connection $\frac{1}{2} \times \frac{3}{4}$, lead seal set, seals

Model	PU	Order no.
without water meter	20	127 106 2



Washstand water meter connection set

Washstand water meter connection set DN 15

for corner valve
chrome-plated

20 127 069 2

Washstand water meter connection set DN 15 with silicone PZ hose

for corner valve
with silicone PZ hose (DIN-DVGW)
chrome-plated

10 127 070 2

Nozzle union

with cap nut, seal and lead seal possibility



	DN	Install length	Connection d ₁	Connection d ₂	PU	Order no.
chrome-plated	15	39.5 mm	G $\frac{3}{4}$	$\frac{1}{2}$	30	127 007 2
chrome-plated	20	50.0 mm	G 1	$\frac{3}{4}$	20	127 067 2
rough	50	58.5 mm	G 1 $\frac{1}{4}$	1	25	127 068 2
rough	15	39.5 mm	G $\frac{3}{4}$	$\frac{1}{2}$	30	127 007 0
rough	20	50.0 mm	G 1	$\frac{3}{4}$	20	127 067 0
rough	25	58.5 mm	G 1 $\frac{1}{4}$	1	25	127 068 0
rough	32	60.0 mm	G 1 $\frac{1}{2}$	1 $\frac{1}{4}$	1	127 019 0
rough	40	70.0 mm	G 2	1 $\frac{1}{2}$	1	127 020 0
rough	50	60.0 mm	G 2 $\frac{1}{2}$	2	1	127 021 0

Threaded connection set

with cap nut, seal and lead seal possibility (2 pieces each)



rough	15	G $\frac{3}{4}$	$\frac{1}{2}$	1	902 003 2
rough	20	G 1	$\frac{3}{4}$	1	902 003 3

Threaded connector

with 2 cap nuts, seals and lead seal possibility



DN	Install length	Connection d ₁	Connection d ₂	PU	Order no.	
chrome-plated	15	30.0 mm	Cap nut	G ¾	30	127 008 2

Threaded connector

with internal and external thread and seal



	DN	Install length	Connection d ₁	Connection d ₂	PU	Order no.
rough	15	18.0 mm	G ¾ IT	G 1 OT	20	127 037 0

Connecting pieces and accessories



Hose connection

with knurled cap nut and seal

	DN	Install length	Cap nut	Hose fitting	PU	Order no.
rough	15	32.0 mm	G 3/4	Ø 14.5	20	127 013 0
chrome-plated	15	32.0 mm	G 3/4	Ø 14.5	20	127 013 2



Cu pipe union

with cap nut in accordance with DIN 3292 and lead seal possibility

	DN	Install length	Cap nut	Sleeve	PU	Order no.
rough	15 x 3/4	16.5 mm	G 3/4	Ø 15	20	127 014 0
rough	18 x 3/4	18.5 mm	G 3/4	Ø 18	20	127 015 0
rough	22 x 1	22.0 mm	G 1	Ø 22	20	127 016 0



Manifold, dual

with cap nut in accordance with DIN 3292 and lead seal possibility, connection for sleeve union or flat-sealing union G 3/4.

	DN	Install length	Cap nut	External thread	PU	Order no.
chrome-plated	20	51.5 mm	G 3/4	G 3/4	20	139 411 2



Union 3/4 x 3/4

cap nut SW 32 sliding with lead seal possibility G 3/4

	DN	Install length	Cap nut	External thread	PU	Order no.
rough	20	39.5 mm	G 3/4	R 3/4	10	139 410 0



Connection elbow

with 2 cap nuts, seals and lead seal possibility

	Install length	Connection d ₁	Connection d ₂	PU	Order no.
rough	35.5 mm	G 1	G 3/4	30	127 029 0



Threaded connector

with cap nuts and lead seal possibility

	Install length	Connection d ₁	Connection d ₂	PU	Order no.
rough	35.5 mm	G 1	G 3/4	30	127 030 0

for combination with apartment water meter for manifold art. no. 682



Protective attachment, model: Plast

Suitable for all water meters article 681 – 683 with 13 mm wide lock ring

	30	178 503 0
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Lead seal clamp

1/2	10	127 631 3
3/4	10	127 631 4

Connecting pieces and accessories



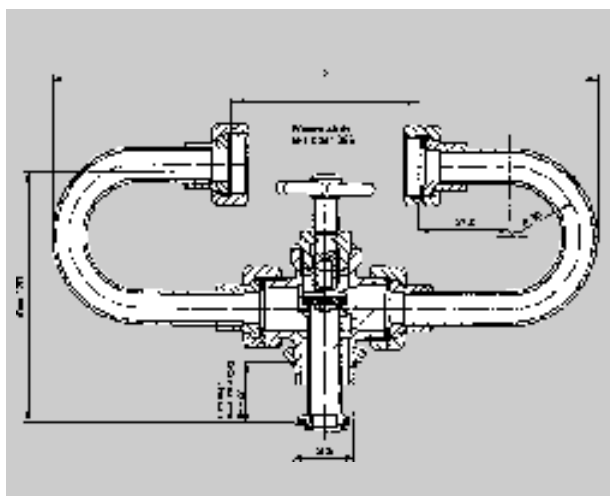
Valve water meter fittings

- Particularly suited for retrofitting in the supply shaft ("spider installation") or for installation in existing pipelines
- By unscrewing the upper part of a $\frac{3}{4}$ valve and screwing in the valve water meter fittings, a lockable water meter can be installed without disconnecting the system
- There is no need to disconnect the PE manifold (spider) and corner valve
- High installation costs are reduced
- Position can be changed depending on space, can be mounted where space is at a premium
- Water meter can be easily replaced

Area of implementation

Perm. excess operating pressure OP 10 bar
 Perm. operating temperature OT 90 °C
 Flow material: Drinking water in accordance with the Drinking Water Ordinance
 See water meter art. 681, 683

Overall dimensions



Article	Install-space	Connection thread	l	b
685	100x120x260	G $\frac{3}{4}$	110	260
686	100x120x230	G $\frac{3}{4}$	80	230

Product range

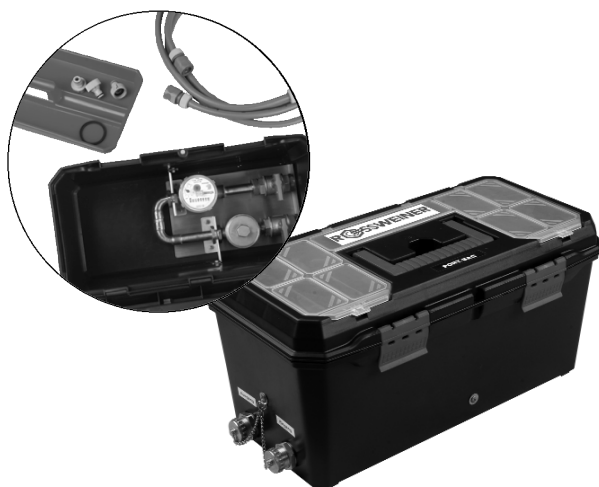
Valve water meter fittings, art. 685

PU	Order no.
1	127 087 0

Valve water meter fittings, art. 686

PU	Order no.
1	127 088 0

Valve water meter fittings



Water meter test case

- Verification of proper water meter function in installed or dismantled status
- Checking for installation errors
- Determination of above-average deviations as accuracy check
- Check of flush-mounted MK meters (coaxial) as well as wall-mounted meters is possible
- Easy connection via Gardena plug couplings
- Can be completely emptied via protective, external threaded connections
- Accessories and threaded union parts are protectively packed in the lid of the case
- Incl. 20x test logs no carbon required

ATTENTION!

The check or test with the water meter test case is a function check of the water meter relative to install errors or detection deviations and has no legal calibration status!

Product range

Water meter test case

PU	Order no.
1	127 000 0

Water meter test case

Operating instructions

Test – water meter in mounted status

- Connect water meter test case (washing machine valve, mixer tap)
- Connect the discharge hose to a suitable drain (WC, bathtub, etc.)
- Thoroughly vent the system
- Close the OUTLET ball valve
- Note the initial status of master meter and test object (test log)
- Slowly open the ball valve
- Test quantity should be at least 10 l (0.01m³)
- Note the end status/determine and evaluate deviations

Test – water meter in dismantled status

- Connect water meter test case (washing machine valve)
- Connect the discharge hose to a suitable drain (WC, bathtub, etc.)
- (Wall-mounted meter) mount the test object upstream of the inlet of the water meter test case per hose connection
- (Wall-mounted meter) mount test object in the connection part of the water meter test case (with adapter if necessary)
- Thoroughly vent the system
- Close the OUTLET ball valve
- Note the initial status of master meter and test object (test log)
- Slowly open the ball valve
- Test quantity should be at least 10 l (0.01 m³)
- Note the end status/determine and evaluate deviations

After the test

- Dismount and empty the test setup
- Sort hoses and threaded union parts, if necessary remount dismantled threaded unions for the user, etc. and check for leaks
- Fill out the test log and have it signed

Test points of the flow measurement for water meters:

- Q_n nominal flow (permissible continuous load)
- Q_{max} highest flow – (as a rule corresponds to $2 \times Q_n$)
- Q_{min} lowest flow – (lower limit of the measuring range)
- Q_t transition flow – (separation limit)

Domestic water meter type MN



Domestic water meter type MN (multi-jet wet-running meter)

- Design as wet-running meter – the counter mechanism is flooded
- Multi-jet design guarantees uniform radial load of the bearings (even if there are extreme fluctuations in flow)
- Housing is made of high-quality brass alloy (powder coated on request)
- Available in horizontal pipe and ascending pipe model

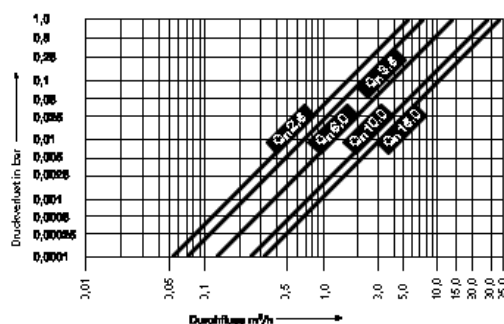
Technical data – type MNK

Install length L	(mm)	165	190	260	260	300	300
Nominal flow rate Q_n	(m³/h)	1.5	2.5	3.5	6	10	15
Maximum flow rate Q_{max}	(m³/h)	3	5	7	12	20	30
Metrological class		B-H/A-V	B-H/A-V	B-H	B-H	B-H	B-H
Max. metrological class		C-H	C-H/A-V	C-H	C-H	C-H	C-H
Nominal diameter	(mm)	15	20	25	32	40	50
Start approx.	(l/h)	10	13	23	23	45	45
Flow at 1 bar pressure loss (l/h)		4500	5600	12500	12500	24000	31000
Maximum operating pressure	(bar)	16	16	16	16	16	16

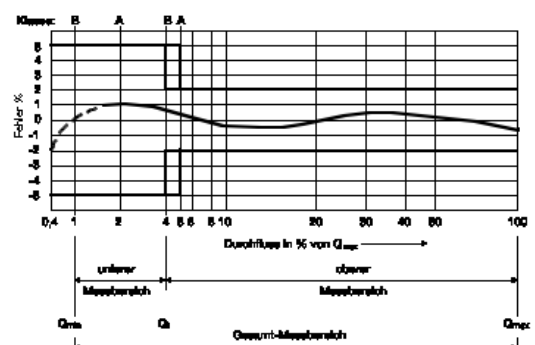
Technical data – type MNSK

Install length L	(mm)	105	150	150
Nominal flow rate Q_n	(m³/h)	2.5	3.5	6
Maximum flow rate Q_{max}	(m³/h)	5	7	12
Metrological class		B-H	B-H	B-H
Max. metrological class		C-H	C-H	C-H
Nominal diameter	(mm)	20	25	32
Start approx.	(l/h)	15	15	187
Flow at 1 bar pressure loss (l/h)	5500	5500	12500	
Maximum operating pressure	(bar)	16	16	16

Pressure loss curve



Measurement error curve



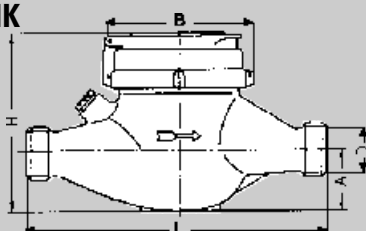
Domestic water meter type MN

Area of implementation

Perm. excess operating pressure OP 10 bar
 Perm. operating temperature TB Cold water + 30 °C
 (Suitable to + 40 °C)
 Medium: Drinking water in accordance with the Drinking Water Ordinance

Overall dimensions

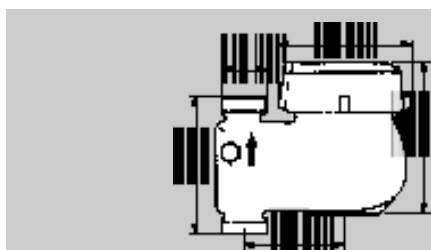
Type MNK



Type MNK

Nominal flow rate Q _n (m³/h)	1.5	2.5	3.5	6	6	10	15
Nominal diameter (mm)	15	20	25	25	32	40	50
Meter thread D	G ¾ B	G 1 B	G 1 ¼ B	G 1 ¼ B	G 1 ½ B	G 2 B	G 2 ½ B
Install length L (mm)	165	190	260	260	260	300	300
Install height H (mm)	104	125	125	125	125	143	155
Dimension B (mm)	96	100	100	100	100	131	131
Dimension A (mm)	33	40	40	40	40	54	51
Weight (kg)	1.5	1.7	2.4	2.4	2.4	4.8	6.5

Type MNSK



Nominal flow rate Q _n (m³/h)	2.5	3.5	6
Nominal diameter (mm)	20	25	25
Meter thread D	G 1 B	G 1 ¼ B	G 1 ½ B
Install length L (mm)	105	150	150
Install height H (mm)	118	130	130
Dimension B (mm)	96	100	100
Dimension A (mm)	82	85	120
Weight (kg)	1.9	312	312

Product range

MNK for horizontal installation

Nominal size	PU	Order no.
1.5	loose	127 601 4
2.5	loose	127 602 4
3.5	loose	127 603 4
6.0	loose	127 605 4
6.0	loose	127 609 4
10.0	loose	127 606 4
15.0	loose	127 598 4

MNSK for vertical installation

Nominal size	PU	Order no.
2.5	loose	178 828 0
3.5	loose	178 828 3
6.0	loose	178 828 1

Domestic water meter type MTK/MTW



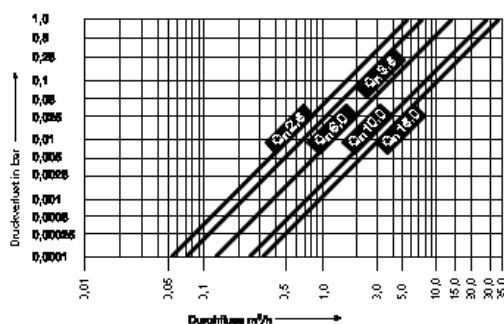
Domestic water meter type MTK (multi-jet dry-running meter)

- Design as dry-running meter – the counter mechanism is encapsulated watertight
- Multi-jet design guarantees uniform radial load of the bearings (even if there are external fluctuations in flow)
- Housing is made of high-quality brass alloy (powder coated on request)
- Available in horizontal pipe and ascending pipe model

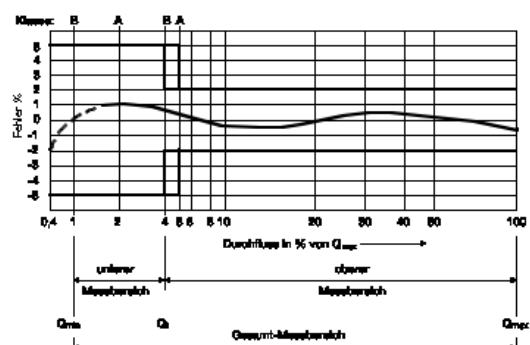
Technical data – type MTK/MTW

	Install length L	(mm)	165	190	260	260	260	300	300
EEC approval	Nominal flow rate Qn	(m³/h)	1.5	2.5	3.5	6	6	10	15
	Maximum flow rate Qmax	(m³/h)	3	5	7	12	12	20	30
	Metrological class	MTK	B-H	B-H	B-H	B-H	B-H	B-H	B-H
	Metrol. class	MTW	A-H	B-H	A-H	B-H	B-H		
	Max. metrolog. class	MTK	B-H	B-H	B-H	C-H	C-H	B-H	B-H
	Max. metrolog. class	MTW	A-H	B-H	A-H	B-H	B-H		
MID approval	Type		MTK/MTW HWV	MTK/MTW HWV	MTK/MTW HWV	MTK/MTW HWV	MTK/MTW HWV	MTK/MTW HWV	MTK/MTW HWV
	Nominal flow rate Q3	(m³/h)	2.5	4	6.3	10	10	16	25
	Maximum flow rate Q4	(m³/h)	3.1	5	7.9	12.5	12.5	20	31.3
	Metrol. class	MTK	R80H/R50V	R80H/R50V	R80H/R50V	R80H/R50V	R80H/R50V	R80H/R50V	R80H/R50V
	Metrol. class	MTW	R80H/R50V	R80H/R50V	R80H/R50V	R80H/R50V	R80H/R50V	R80H/R50V	R80H/R50V
	Max. metrolog. class	MTK	R160H/R50V	R160H/R50V	R160H/R50V	R160H/R50V	R160H/R50V	R160H/R50V	R160H/R50V
	Max. metrolog. class	MTW	R160H/R50V	R160H/R50V	R160H/R50V	R160H/R50V	R160H/R50V	R160H/R50V	R160H/R50V
Nominal diameter	(mm)	15	20	25	25	32	40	50	
Start approx.	(l/h)	10	13	18	23	45	45	45	
Flow at 1 bar pressure loss	(l/h)	4500	5600	11000	12500	12500	24000	31000	
Maximum operating pressure	(bar)	16	16	16	16	16	16	16	

Pressure loss curve



Measuring error curve (EEC approval)



Domestic water meter type MTK/MTW

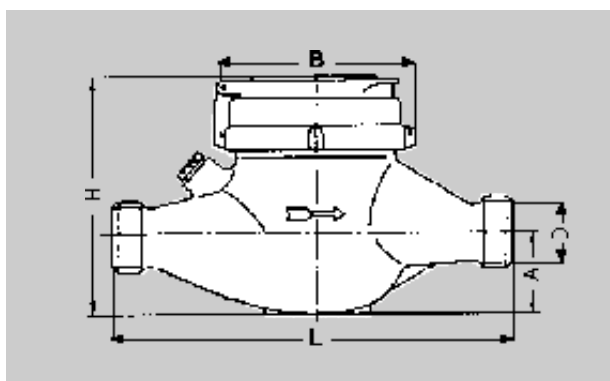
Area of implementation

Perm. excess operating pressure OP 16 bar
 Perm. operating temperature TB Cold water + 30 °C
 Hot water to + 90 °C
 Medium: Drinking water in accordance with
 the Drinking Water Ordinance

Model

Housing: Brass (optional)
Arithmetic unit: Plastic
 media-contacting components with KTW/W270 test
Approval: EEC approval, MID approval

Overall dimensions



Nominal flow rate Q_n	(m³/h)	1.5	2.5	3.5	6	6	10	15
Nominal diameter	(mm)	15	20	25	25	32	40	50
Meter thread D		G ¾ B	G 1 B	G 1 ¼ B	G 1 ¼ B	G 1 ½ B	G 2 B	G 2 ½ B
Install length L	(mm)	165	190	260	260	260	300	300
Install height H	(mm)	104	108	120	120	120	143	155
Dimension B	(mm)	96	100	100	100	100	131	131
Dimension A	(mm)	33	40	40	40	40	54	51
Weight approx.	(kg)	1.4	1.6	2.4	2.4	2.4	4.8	6.9

Product range

MTK for horizontal installation

Nominal size	PU	Order no.
1.5	loose	127 642 4
2.5	loose	127 645 4
3.5	loose	127 646 4
6.0	loose	127 644 4
6.0	loose	127 647 4
10.0	loose	127 648 4
15.0	loose	127 649 4

MTW for horizontal installation

Nominal size	PU	Order no.
1.5	loose	127 682 5
2.5	loose	127 683 5
3.5	loose	127 684 5
6.0	loose	127 685 5
10.0	loose	127 686 5

Note: If ordered with MID approval the 7-digit order number must be supplemented with "B3" (e.g. 127 091 0 B3)

Domestic water meter type MTK pulse output



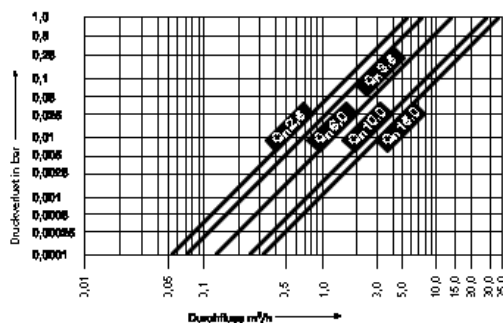
Domestic water meter type MTK with pulse output (multi-jet dry-running meter)

- Design as dry-running meter – the counter mechanism is encapsulated watertight
- Multi-jet design guarantees uniform radial load of the bearings (even if there are external fluctuations in flow)
- Housing is made of high-quality brass alloy (powder coated on request)
- Available in horizontal pipe and ascending pipe model

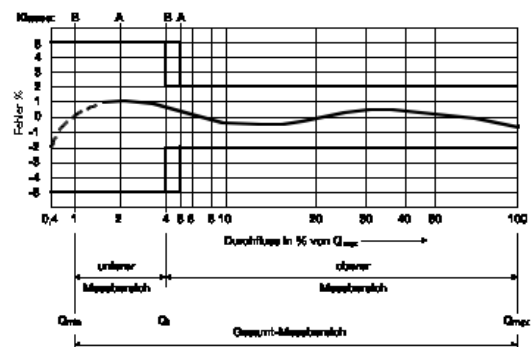
Technical data – type MT IA

		Install length L (mm)	165	190	260	260
EEC approval	Nominal flow rate Q_n (m^3/h)		1.5	2.5	3.5	6
	Maximum flow rate Q_{max} (m^3/h)		3	5	7	12
	Metrological class		B-H	B-H	B-H	B-H
	Max. metrolog. class		B-H	B-H	B-H	C-H
MID approval	Type		MTK/MTW HWK	MTK/MTW HWK	MTK/MTW HWK	MTK/MTW HWK
	Nominal flow rate Q_3 (m^3/h)		2.5	4	6.3	10
	Maximum flow rate Q_4 (m^3/h)		3.1	5	7.9	12.5
	Metrological class		R80H/R50V	R80H/R50V	R80H/R50V	R80H/R50V
	Max. metrolog. class		R160H/R50V	R160H/R50V	R160H/R50V	R160H/R50V
	Nominal diameter (mm)		15	20	25	32
	Start approx. (l/h)		10	13	18	45
	Flow at 1 bar pressure loss (l/h)		4500	5600	11000	12500
	Maximum operating pressure (bar)		16	16	16	16

Pressure loss curve



Measuring error curve (EEC approval)



Domestic water meter type MTK pulse output

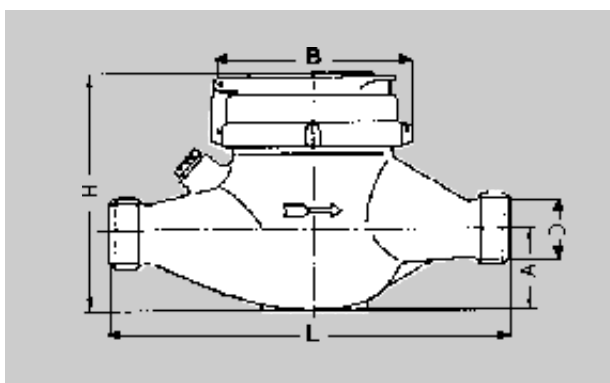
Area of implementation

Perm. excess operating pressure OP 10 bar
 Perm. operating temperature TB Cold water + 30 °C
 Medium: Drinking water in accordance with
 the Drinking Water Ordinance

Model

Housing: Brass (optional)
Arithmetic unit: Plastic
 media-contacting components with KTW/W270 test
Approval: EEC approval, MID approval

Overall dimensions



Nominal flow rate Q _n (m ³ /h)		1.5	2.5	3.5	6
Nominal diameter (mm)		15	20	25	32
Meter thread D		G ¾ B	G 1 B	G 1 ¼ B	G 1 ½ B
Install length L (mm)		165	190	260	260
Install height H (mm)		104	108	120	120
Dimension B (mm)		96	100	100	100
Dimension A (mm)		33	40	40	40
Weight approx. (kg)		1.4	1.6	2.4	2.4

Technical data – pulse output

Cable length:	2 m
Pulse value:	10 liters/pulse
Contact load:	to 10 W
Switching DC voltage:	to 200 V
Switching current:	to 500 mA
Switching time:	0.5 ms
Transfer resistance:	150 mOhm
Capacitance:	0.2 pF

Product range

MTW IA for horizontal installation

Nominal size	PU	Order no.
1.5	loose	127 643 0
2.5	loose	127 643 1
3.5	loose	127 643 2
6.0	loose	127 643 3

Note: If ordered with MID approval the 7-digit order number must be supplemented with "B3" (e.g. 127 091 0 B3)

Domestic water meter type MTK/MTW MODULARIS



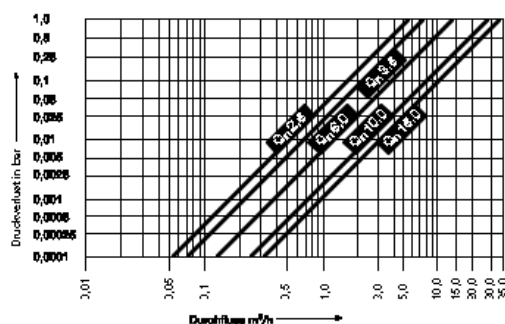
Domestic water meter type MTK/MTW MODULARIS (multi-jet dry-running meter)

- Design as dry-running meter – the counter mechanism is encapsulated watertight
- Multi-jet design guarantees uniform radial load of the bearings (even if there are external fluctuations in flow)
- Housing is made of high-quality brass alloy (powder coated on request)
- Available in horizontal pipe and ascending pipe model

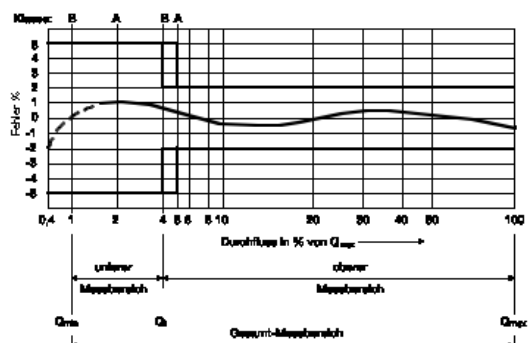
Technical data – type MTK/MTW

		Install length L (mm)	190	260	260	260	300
EEC approval	Nominal flow rate Q _n	(m³/h)	2.5	3.5	6	6	10
	Maximum flow rate Q _{max}	(m³/h)	5	7	12	12	20
	Metrol. class	MTK	B-H	B-H	B-H	B-H	B-H
	Metrol. class	MTW	B-H	A-H	B-H	B-H	B-H
	Max. metrolog. class	MTK	B-H	B-H	C-H	C-H	B-H
	Max. metrolog. class	MTW	B-H	A-H	B-H	B-H	B-H
MID approval	Type		MTK/MTW HWX	MTK/MTW HWX	MTK/MTW HWX	MTK/MTW HWX	MTK/MTW HWX
	Nominal flow rate Q ₃	(m³/h)	4	6.3	10	10	16
	Maximum flow rate Q ₄	(m³/h)	5	7.9	12.5	12.5	20
	Metrol. class	MTK	R80H/R50V	R80H/R50V	R80H/R50V	R80H/R50V	R80H/R50V
	Metrol. class	MTW	R80H/R50V	R80H/R50V	R80H/R50V	R80H/R50V	R80H/R50V
	Max. metrolog. class	MTK	R160H/R50V	R160H/R50V	R160H/R50V	R160H/R50V	R160H/R50V
	Max. metrolog. class	MTW	R160H/R50V	R160H/R50V	R160H/R50V	R160H/R50V	R160H/R50V
	Nominal diameter	(mm)	20	25	25	32	40
	Start approx.	(l/h)	13	18	23	45	45
	Flow at 1 bar pressure loss	(l/h)	5600	11000	12500	12500	24000
	Maximum operating pressure	(bar)	16	16	16	16	16

Pressure loss curve



Measuring error curve (EEC approval)



Domestic water meter type MTK/MTW MODULARIS

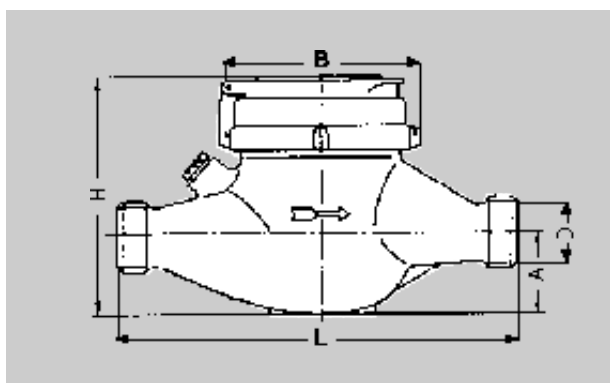
Area of implementation

Perm. excess operating pressure OP 10 bar
 Perm. operating temperature TB Cold water + 30 °C
 (Suitable to + 40 °C)
 Medium: Drinking water in accordance with
 the Drinking Water Ordinance

Model

Housing: Brass (optional)
Arithmetic unit: Plastic
 media-contacting components with KTW/W270 test
Approval: EEC approval, MID approval

Overall dimensions



Nominal flow rate Q _n	(m ³ /h)	2.5	3.5	6	6	10
Nominal diameter	(mm)	20	25	25	32	40
Meter thread D		G 1 B	G 1 ¼ B	G 1 ¼ B	G 1 ½ B	G 2 B
Install length L	(mm)	190	260	260	260	300
Install height H	(mm)	108	120	120	120	143
Dimension B	(mm)	100	100	100	100	131
Dimension A	(mm)	40	40	40	40	54
Weight	(kg)	1.6	2.4	2.4	2.4	4.8

Product range

MTK for horizontal installation

Nominal size	PU	Order no.
2.5	loose	127 695 0
3.5	loose	127 695 1
6.0	loose	127 695 2
6.0	loose	127 695 3
10.0	loose	127 695 4

MTW for horizontal installation

Nominal size	PU	Order no.
2.5	loose	127 696 0
3.5	loose	127 696 1
6.0	loose	127 696 2
10.0	loose	127 696 4

Note: If ordered with MID approval the 7-digit order number must be supplemented with "B3" (e.g. 127 091 0 B3)

Domestic water meter type MTK/MTW MODULARIS



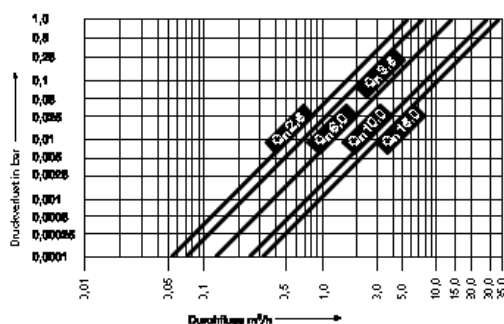
Domestic water meter type MTK/MTW MODULARIS (multi-jet dry-running meter) – ascending pipe

- Design as dry-running meter – the counter mechanism is encapsulated watertight
- Multi-jet design guarantees uniform radial load of the bearings (even if there are external fluctuations in flow)
- Housing is made of high-quality brass alloy (powder coated on request)
- Available in horizontal pipe and ascending pipe model

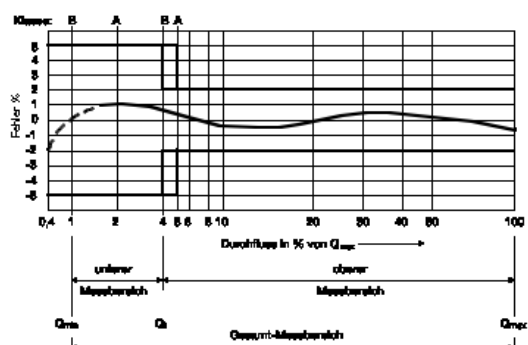
Technical data – type MTK/MTW

	Install length L	(mm)	105	150	150	150
EEC approval	Nominal flow rate Q _n	(m³/h)	2.5	3.5	6	10
	Maximum flow rate Q _{max}	(m³/h)	5	7	12	20
	Metrol. class	MTK	B-H	B-H	B-H	B-H
	Metrol. class	MTW	B-H	A-H	B-H	
	Max. metrolog. class	MTK	B-H	B-H	C-H	B-H
	Max. metrolog. class	MTW	B-H	A-H	B-H	
MID approval	Type		MTK/MTW SWX	MTK/MTW SWX	MTK/MTW SWX	MTK/MTW SWX
	Nominal flow rate Q ₃	(m³/h)	4	6.3	10	16
	Maximum flow rate Q ₄	(m³/h)	5	7.9	12.5	20
	Metrol. class	MTK	R80H/R50V	R80H/R50V	R80H/R50V	R80H/R50V
	Metrol. class	MTW	R80H/R50V	R80H/R50V	R80H/R50V	R80H/R50V
	Max. metrolog. class	MTK	R160H/R50V	R160H/R50V	R160H/R50V	R160H/R50V
	Max. metrolog. class	MTW	R160H/R50V	R160H/R50V	R160H/R50V	R160H/R50V
	Nominal diameter	(mm)	20	25	25	40
	Start approx.	(l/h)	15	18	18	38
	Flow at 1 bar pressure loss	(l/h)	5500	12500	12500	26000
	Maximum operating pressure	(bar)	16	16	16	16

Pressure loss curve



Measuring error curve (EEC approval)



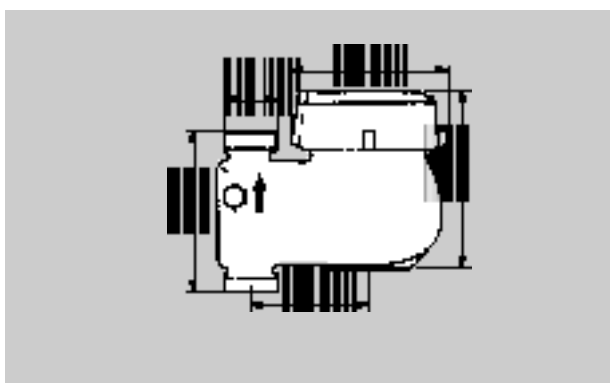
Domestic water meter type MTK/MTW MODULARIS

Area of implementation

Perm. excess operating pressure OP 10 bar
 Perm. operating temperature TB Cold water + 30 °C
 (Suitable to + 40 °C)
 Medium: Drinking water in accordance with
 the Drinking Water Ordinance

Model

Housing: Brass (optional)
Arithmetic unit: Plastic
 media-contacting components with KTW/W270 test
Approval: EEC approval, MID approval



Nominal flow rate Q _n	(m³/h)	2.5	3.5	6	10
Nominal diameter	(mm)	20	25	25	40
Meter thread D		G 1 B	G 1 ¼ B	G 1 ¼ B	G 2 B
Install length L	(mm)	105	150	150	150
Install height H	(mm)	150	170	170	215
Dimension B	(mm)	96	100	100	100
Dimension A	(mm)	82	85	120	120
Weight	(kg)	1.8	2.9	2.9	5.4

Product range

MTK (cold water) for vertical installation

Nominal size	PU	Order no.
2.5	loose	127 695 5
3.5	loose	127 695 6
6.0	loose	127 695 2
10.0	loose	127 695 8

MTW (hot water) for vertical installation

Nominal size	PU	Order no.
2.5	loose	127 696 5
3.5	loose	127 696 6
6.0	loose	127 696 7
10.0	loose	127 696 8

Note: If ordered with MID approval the 7-digit order number must be supplemented with "B3" (e.g. 127 091 0 B3)

