

# MeiTwinRF

Compound Water Meter  
for potable water up to 50 °C  
DN 50, DN 65, DN 80, DN 100



## Applications

Measurement of high flow rates with extremely wide spread flow profile

Measurement of very small flow rates for leakage detection

Ideal for fire service pipes

## Options

Radio communication with different frequencies

Optional by-pass meter:

Spool piece for extension of meter casing as per DIN 19625

Port for 1/4" pressure sensor

## Main characteristics

Registers with integrated radio communication and data logger

LC-display for consumption and status information

Secured encrypted data transmission

The main meter and the by-pass meter are arranged one behind the other in the direction of flow.

There is no longer any need for the differentiation between the "by-pass meter on the right" and "by-pass meter on the left".

No straight upstream or downstream pipe necessary due to integrated flow straightener (UOD0).

Removable metrological unit consisting of the main meter, the change-over valve and the by-pass meter ("3 in 1" concept).

A multirange metrological unit allows an easy economical replacement after the validity period of the calibration has expired.

Main meter with hydrodynamic balanced rotor.

Spring-loaded change-over valve with low headloss and extended lifetime.

By-pass meter specified as a piston meter cartridge 612MTW-RF with plug-in non-return valve, register copper/glass, protection class IP68.

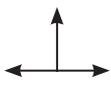
Minimum flowrate: 6 l/hour for piston type by-pass meter.

Available in body lengths specified as per DIN 19625 and ISO 4064.

# Pattern Approval

Marking CE M-XX\* 0102  
SK 11-MI001-SMU020  
  
\*Year of production

# Installation

Pipe	horizontal vertical	
Meter Head	upwards sideways	

The meter does not require any upstream or downstream straight length

# Technical data

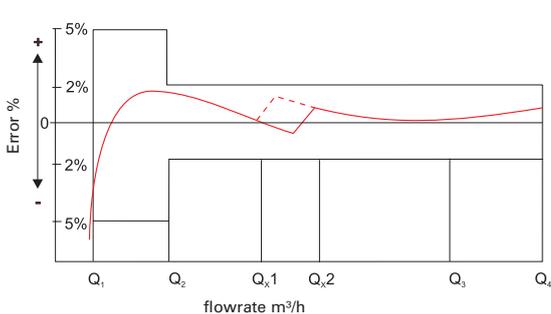
Performance Table acc. to Manufacturers Values

Size	DN	[mm]	50	65	80	100
Maximum Working Pressure	PN	[bar]	16			
Maximum Peak Flow	$Q_s$	[m <sup>3</sup> /h]	90	120	200	280
Continuous Flow	$Q_{3'}$	[m <sup>3</sup> /h]	50	70	120	180
Changeover Flowrate at Increasing Flow	$Q_{x2}$	[m <sup>3</sup> /h]	2.0 - 2.6			
Changeover Flowrate at Decreasing Flow	$Q_{x1}$	[m <sup>3</sup> /h]	1.1 - 1.7			
Transitional Flowrate	$Q_2$	[m <sup>3</sup> /h]	0.012			
Minimum Flowrate	$Q_{1'}$	[m <sup>3</sup> /h]	0.006			

Performance Table acc. to MID Pattern Approval

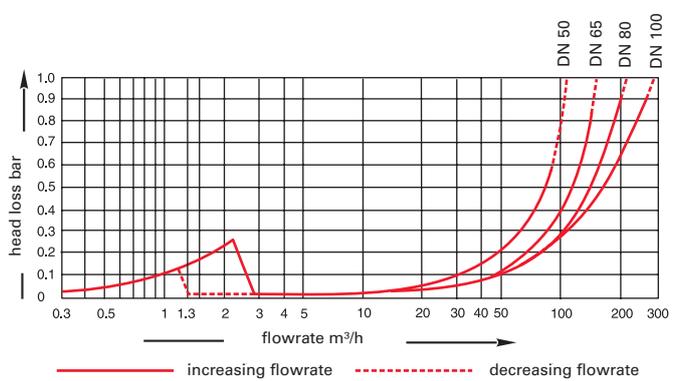
Size	DN	[mm]	50	65	80	100
Maximum Working Pressure	PN	[bar]	16			
Maximum Peak Flow	$Q_4$	[m <sup>3</sup> /h]	31.25	50	78.75	125
Continuous Flow	$Q_3$	[m <sup>3</sup> /h]	25	40	63	100
Changeover Flowrate at Increasing Flow	$Q_{x2}$	[m <sup>3</sup> /h]	2.0 - 2.6			
Changeover Flowrate at Decreasing Flow	$Q_{x1}$	[m <sup>3</sup> /h]	1.1 - 1.7			
Transitional Flowrate	$Q_2$	[m <sup>3</sup> /h]	0.025			
Minimum Flowrate	$Q_1$	[m <sup>3</sup> /h]	0.016			
Ratio	$Q_3/Q_1$		1600	2500	4000	6300

# Typical Accuracy Curve

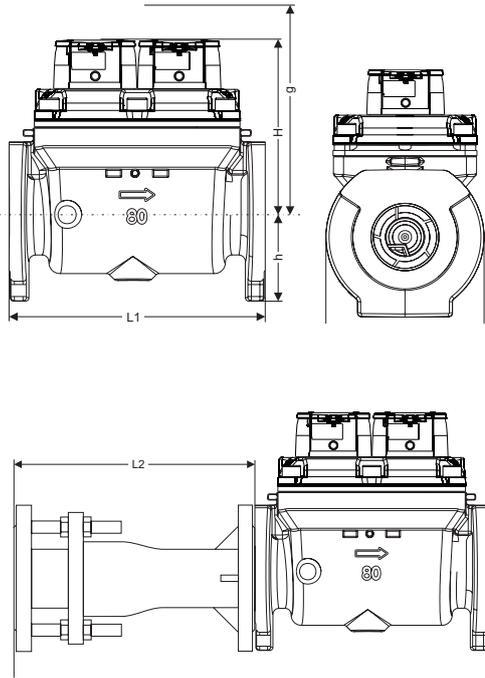


- $Q_1$  minimum flow  $\pm 5\%$
- $Q_2$  transitional flow  $\pm 2\%$
- $Q_3$  continuous flow  $\pm 2\%$
- $Q_4$  maximum peak flow  $\pm 2\%$

# Typical Head Loss Curve



## Dimension Picture



## Dimensions and Weights

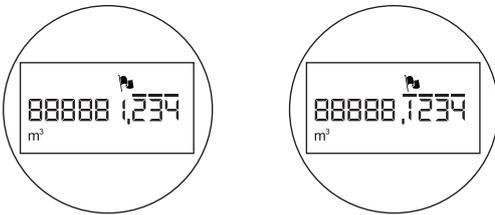
Nominal Diameter	mm	50	65	80	100	
Overall length	L1	mm	270		300	360
	L1	mm	300	300	350	350
Dismantling height	H	mm	250			
	h	mm	80	92.5	100	100
	g	mm	505			
Length	L2	mm	330±40	n/a	400±60	440±60
	L*	mm	600±40	n/a	700±60	800±60
Width	mm	185	185	210	220	
Weight	meter	kg	23.0	24.6	26.1	31.0
	measuring unit	kg	7			
	spool piece	kg	10.5	n/a	16.5	20.5

\* for MeiTwinRF with body length according to DIN 19625

## Materials

Body	main meter	Cast iron
	by-pass meter	Brass
Measuring element	both meters	Plastic
Rotor	both meters	Plastic
Spring loaded valve		Plastic and stainless steel
Battery		Lithium

## Dials



Main meter

By-pass meter  
(type 612MTW-RF)

	Smallest reading m <sup>3</sup>	Max. reading m <sup>3</sup>
Main meter	0,001	999,999.999
By-pass meter	0,0001	99,999.9999

- Alarm is triggered
- Low battery level is reached
- Radio is activated
- System is set up in hydraulic testing mode
- ⊕⊖ indicates positive or negative flow
- m<sup>3</sup>** indicates the unit

## By-pass Meters

Piston meter cartridge dry dial type 612MTW-RF Q<sub>3</sub> 4



By-pass meter  
(type 612MTW-RF)

## Available design

Size	DN	50	65	80	100
Nominal size	Q <sub>3</sub>	25	40	63	100
		Overall length as per DIN 19625			
Overall length	mm	270		300	360
		Overall length as per ISO 4064			
Overall length	mm	300	300	350	350

### Accessories

Spool pieces for extension of meter casing as per DIN 19625					
Size	DN	50	65	80	100
Overall length	mm	330±40	n/a	400±60	440+60

## Order example

MeiTwinRF, DN 50, T30/16	Type
Drilled to EN 1092 PN 16	Size
eRegister / 868 MHz / m <sup>3</sup>	Temperature
Type 612MTW-RF by-pass meter Q <sub>3</sub> 4	Pressure
Overall length 270 mm	Flange drilling
With MID conformity	Register type / frequency / unit
With spool piece	By-pass meter
DN 50	Overall length
	Type of approval
	Fittings
	Nominal width

# MeiTwinRF infrastructure

The MeiTwinRF has SensusRF integrated technology providing the advantages of both uni- and bidirectional system architecture as described below. SensusRF is the optimized license free radio system for battery driven endpoints and repeaters. Scalable for mobile and remote reading without exchange of components, it is available in 433 MHz and 868 MHz.

**OMS**® compatible.

SensusRF offers two communication modes

## 1. Fixed Radio Network

- Auto configuration wizard (gateway sniffing for endpoints and repeaters)
- Integrating repeaters (up to 7 hops in a chain)
- Self-healing network (using alternative routes)
- Meter reading transparent and local
- Fast track alarms
- DMA snap shot (snap shot of a water network for evaluation)
- TCP/IP technology for the WAN communication
- High level of data security (end-to-end encryption)
- Enables cloud technologies, FTP and other remote database applications

## 2. Mobile read - Walk-by / Drive-by

- Unidirectional telegrams
- Bidirectional communication
- Spontaneous reception possible without route
- Configuration of the endpoint

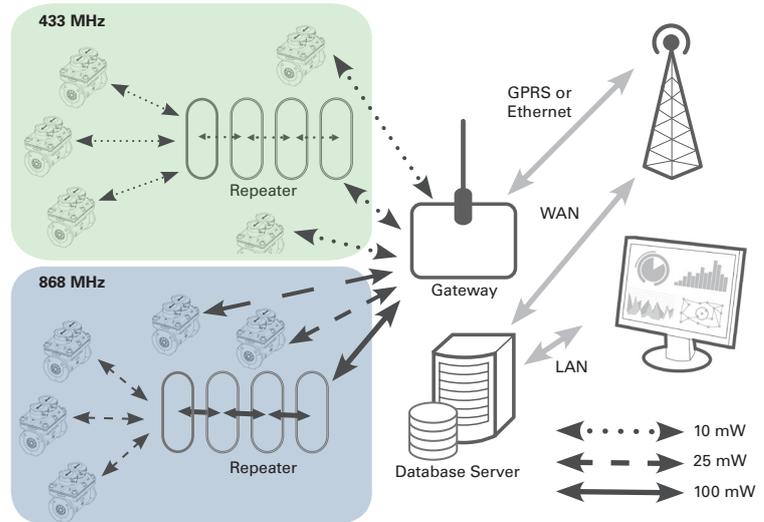
### SIRT (Sensus Interface Radio Tool)

SIRT is a radio modem for SensusRF radio, connected to a handheld via Bluetooth and using SensusREAD Mobile Reading software with the following features:

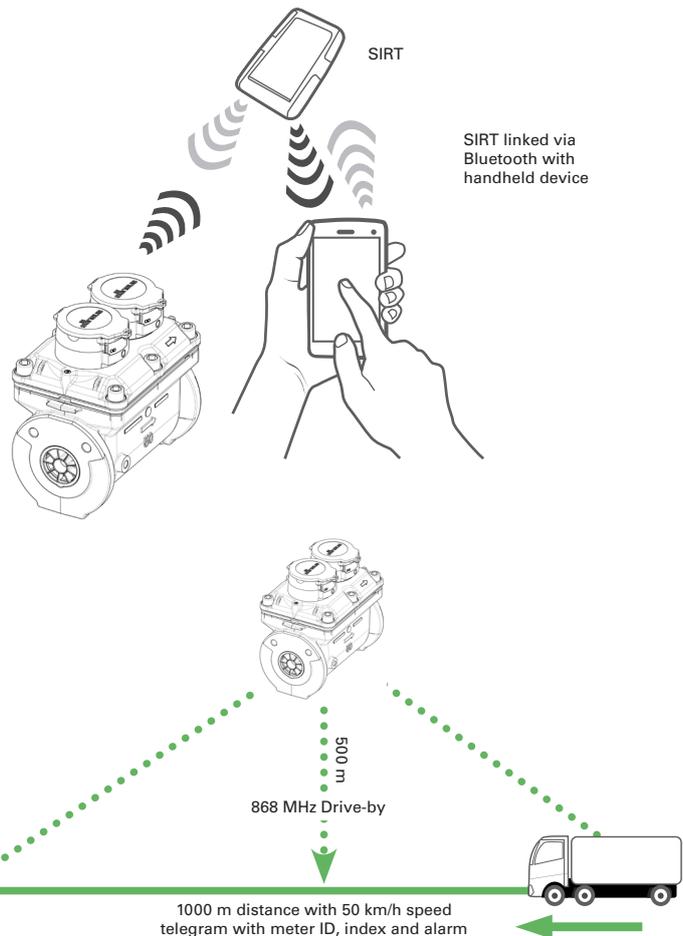
- Installation and readout of devices
- Reception of frequently transmitted radio messages from Sensus RF radio endpoints
- Request additional information from the radio endpoints
- Change configuration of radio endpoints (alarm, level settings...)

For further information please refer to the SensusRF brochure.

## MeiTwinRF Fixed radio network - Remote Access & Monitoring



## Unidirectional/Bidirectional communication



**qualityaustria** Certified according to ISO 9001  
Succeed with Quality Quality Management System Quality Austria Reg.no. 3496/0

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