

# MeiTwin

with MID approval

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



## Main characteristics

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 (U0D0).

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-HRI 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.

## 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



MeiTwin with 612MTW-ER56

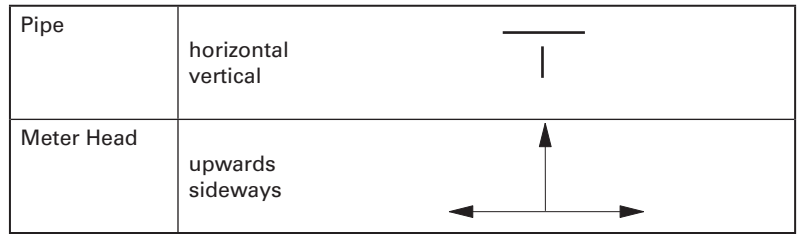


MeiTwin with 612MTW

# Pattern Approval

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

# Installation



The meter does not require any upstream or downstream straight length

# Technical data

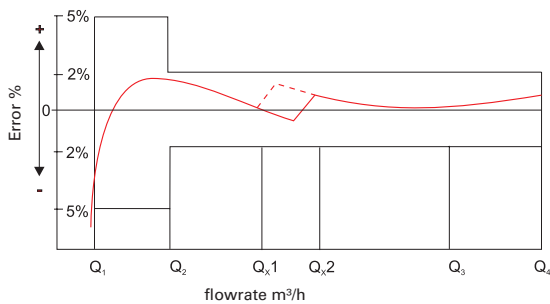
Performance Table acc. to Manufacturers Values

| 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

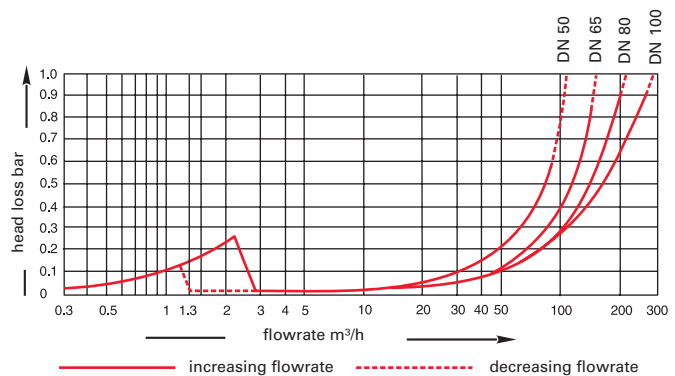
| Size                                   | DN        | [mm]                | 50        | 65   | 80    | 100  |
|--|-----------|---------------------|-----------|------|-------|------|
| Maximum Working Pressure               | PN        | [bar]               | 16        |      |       |      |
| Maximum 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

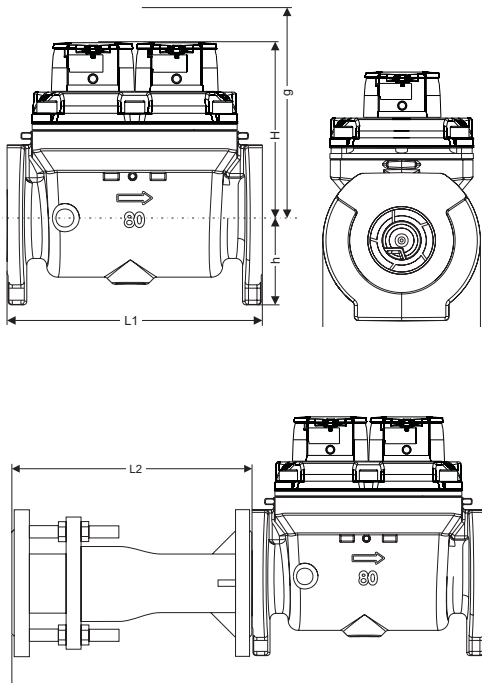


- $Q_1$  minimum flow  $\pm 5\%$
- $Q_2$  transitional flow  $\pm 2\%$
- $Q_3$  continuous flow  $\pm 2\%$
- $Q_4$  maximum peak flow  $\pm 2\%$

# Typical Head Loss Curve



## Dimension Picture



## Dimensions and Weights

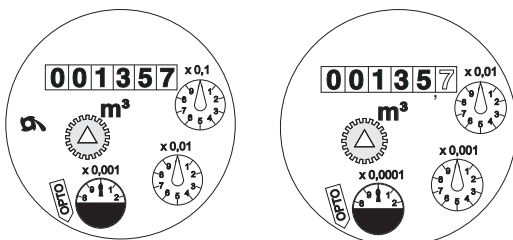
| Nominal Diameter   | mm             | 50  | 65     | 80   | 100    |        |
|--------------------|----------------|-----|--------|------|--------|--------|
| Overall length     | L1             | mm  | 270    |      | 300    | 360    |
|                    | L1             | mm  | 300    | 300  | 350    | 350    |
| Dismantling height | H              | mm  | 250    |      |        |        |
|                    | h              | mm  | 80     | 92.5 | 100    | 100    |
|                    | g              | mm  | 505    |      |        |        |
| Length             | L2             | mm  | 330±40 |      | 400±60 | 440±60 |
|                    | L*             | mm  | 600±40 |      | 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   |      | 16.5   | 20.5   |

\* for MeiTwin with body length according 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 |

## Dials



Main meter

By-pass meter  
(type 612MTW-HRI)

## By-pass Meters

### Standard By-pass meter

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



By-pass meter  
(type 612MTW-HRI)



By-pass meter  
(type 612MTW-ER56)



By-pass meter  
(type 612MTW)

## Options

Optional by-pass meter:

- 612MTW-ER56, piston type meter with Encoder register, protection class IP68
- 612MTW, piston type meter with plastic register casing, protection class IP65

Main and by-pass meters fitted with pulse and data interface HRI-Mei and/or pulsers type OD (with by-pass meter 612MTW-HRI)

Main and by-pass meters equipped with Encoder register ER56 for direct meter reading via data protocol (M-Bus, MiniBus, Sensus, IEC 1107)

Spool piece for extension of meter casing as per DIN 19625

Port for 1/4" pressure sensor

## Pulse values

|  |         |   |
|--|---------|---|
| Main meter (standard register)             | HRI-Mei | 0.01 m <sup>3</sup> , 0.1 m <sup>3</sup> and 1 m <sup>3</sup>                       |
|  | OD 01   | 0.001 m <sup>3</sup>  |
|  | OD 03   | 0.01 m <sup>3</sup>   |
| Main meter (Encoder register)              | HRI     | 0.1 m <sup>3</sup> or 1 m <sup>3</sup>  |
| By-pass meter (type 612MTW-HRI) (Standard) | HRI-Mei | 0.001 m <sup>3</sup> ; 0.01 m <sup>3</sup> and 0.1 m <sup>3</sup>                   |
|  | OD 01   | 0.0001 m <sup>3</sup>   |
|  | OD 03   | 0.001 m <sup>3</sup>  |
| By-pass meter (type 612 MTW-ER56)          | HRI     | 0.001 m <sup>3</sup> ; 0.01 m <sup>3</sup> ; 0.1 m <sup>3</sup> or 1 m <sup>3</sup> |
| By-pass meter (type 612 MTW)               | HRI     | 0.001 m <sup>3</sup> ; 0.01 m <sup>3</sup> ; 0.1 m <sup>3</sup> or 1 m <sup>3</sup> |

## 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 |    | 400±60 | 440+60 |

## Order example

|  |                  |
|--|------------------|
| MeiTwin, DN 50, T30/16                         | Type             |
| Drilled to EN 1092 PN 16                       | Size             |
| Type 612MTW-HRI by-pass meter Q <sub>3</sub> 4 | Temperature      |
| Overall length 270 mm                          | Pressure         |
| With MID conformity                            | Flange drilling  |
| With spool piece                               | By-pass meter    |
| DN 50  | Overall length   |
|  | Type of approval |
|  | Fittings         |
|  | Nominal width    |



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