



# MTWcoder®

Multijet meter  
with M-Bus interface EN 13757-2  
for warm water up to 90°C  
DN15, 20, 25, 32, 40, 50

## Your benefits

- Robust, high grade wear resistant materials:  
**Excellent measuring stability and reliability**
- Measurement of low flow rates:  
**Increased cost effectiveness**
- Transfer of the effective meter reading:  
**No data loss and guaranteed security of the billing data**
- Batteryless register:  
**No service life restriction**

## Application

- Regular consumption monitoring of water consumption within an entire building
- For nominal flow rates up to 25m<sup>3</sup>/h
- Water meter with M-Bus data communication

## Options

- Flanged variant PN 16 or PN 25
- Other measuring ranges

## Features

- Multijet impeller wheel, super dry-dial, magnetic coupling
- Register can be turned for best readout position
- Maximum operation pressure PN 16 bar (Flanged PN 25 bar)
- Maximum operating temperature 90°C
- Horizontal or vertical installation (MTW-V...)
- Flanged configuration only for horizontal installation
- High grade wear resistant and corrosion proof materials
- Inlet strainer
- Reconditionable and recyclable execution
- **CE** Conformity according to European Measuring Instruments (MID)
- Serial M-Bus interface to EN 13757-2 and M-Bus protocol EN 13757-3
- Power is provided from the M-Bus central
- Connecting cable, standard length 1,5m

## Encoder Functioning Principle

With the Absolute Encoder system the individual rollers of the mechanical index are scanned opto-electronically. For this purpose, each roller has three slots, which vary in length and are ordered asymmetrically. The different length slots in each of the rollers are scanned optically with light pipes. The exact defined position of each of the rollers is then encoded as an absolute roller counter position and then sent as a component of the protocol over the M-Bus interface. This functioning principle is patented by GWF. The GWF Encoder interface has in comparison to a meter with a pulse output, a higher information content and readout security.

# Technical Data

Execution			MTWcoder® (horizontal)								MTWcoder®-VS or -VF (vertical) <sup>1)</sup>				
Nominal diameter	DN	mm	15	20	20	25	25	32	40	50	20	20	25	32	40
Operating pressure	PN	bar	16	16	16	16	16	16	16	16	16	16	16	16	16
Operating pressure (flanged)	PN	bar	-	-	25	25	25	25	25	25	-	-	-	-	-
Connection thread on meter	G...B	Inch	¾	1	1	1¼	1¼	1½	2	2¾	1	1	1¼	1½	2
Connection thread on coupling	R...	Inch	½	¾	¾	1	1	1¼	1½	2	¾	¾	1	1¼	1½
Nominal flow rate	Q <sub>3</sub>	m <sup>3</sup> /h	2,5	2,5	4	6,3	10	10	16	25	2,5	4	6,3	10	16
Maximum flow rate	Q <sub>4</sub>	m <sup>3</sup> /h	3,125	3,125	5	7,875	12,5	12,5	20	31,25	3,125	5	7,875	12,5	20
Transitional flow rate ±3%	Q <sub>2</sub>	l/h	40	40	80	126	200	200	320	500	40	80	126	200	320
Minimum flow rate ±5%	Q <sub>1</sub>	l/h	25	25	50	78,75	125	125	200	312,5	25	50	78,75	125	200
Temperature		max. °C	90	90	90	90	90	90	90	90	90	90	90	90	90
Measuring range			R100	R100	R80	R80	R80	R80	R80	R80	R100	R80	R80	R80	R80

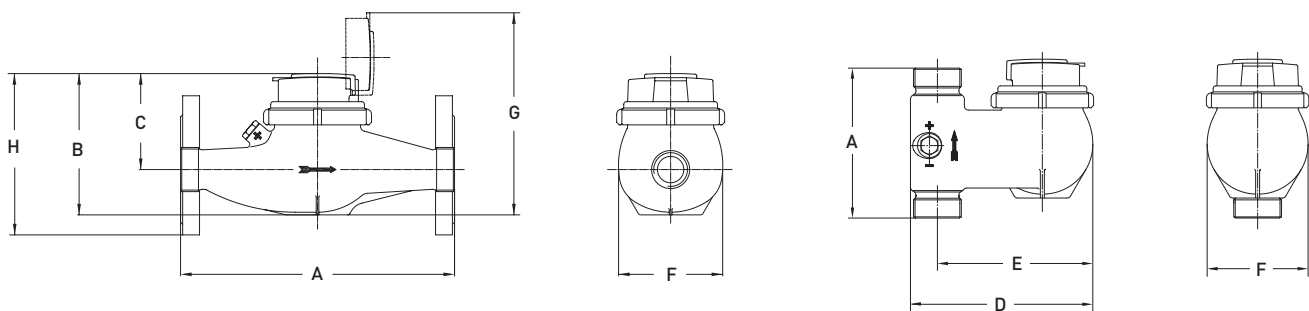
Dimensions and weights			MTWcoder® (horizontal)								MTWcoder®-VS or -VF (vertical) <sup>1)</sup>				
Length without couplings	A	mm	165	220 <sup>2)</sup>	220 <sup>2)</sup>	260	260	260	300	300	105	105	150	150	200
Length with couplings		mm	240	314	314	374	374	374	434	454	199	199	264	264	334
Total height	B	mm	133	139	139	149	149	149	174	188	-	-	-	-	-
Meter height from pipe centre line	C	mm	98	99	99	105	105	105	128	131	-	-	-	-	-
Meter depth	D	mm	-	-	-	-	-	-	-	-	148	148	169	183	226
Meter depth from pipe centre line	E	mm	-	-	-	-	-	-	-	-	130	130	143	156	190
Meter width	F	mm	95	95	95	100	100	100	135	151	95	95	98	101	139
Meter height with open lid	G	mm	191	197	197	206	206	206	232	246	-	-	-	-	-
Length with flanges PN 16/25		mm	-	-	190	260	260	260	300	300 <sup>3)</sup>	-	-	-	-	-
Height with flanges	H	mm	-	-	146	156	156	165	197	209	-	-	-	-	-
Flange external dimension <sup>4)</sup>		mm	-	-	105	115	115	140	150	165	-	-	-	-	-
Hole circle diameter <sup>4)</sup>		mm	-	-	75	85	85	100	110	125	-	-	-	-	-
Numbers of screws <sup>4)</sup>		Pcs.	-	-	4	4	4	4	4	4	-	-	-	-	-
Weight without couplings		app. kg	1,9	2,3	2,3	2,8	2,8	2,9	5,6	6,9	-	-	-	-	-
Weight without couplings MTW-VS		app. kg	-	-	-	-	-	-	-	-	2,1	2,1	3,2	3,2	6,2
Weight without couplings MTW-VF		app. kg	-	-	-	-	-	-	-	-	2,2	2,2	3,6	3,9	7,5
Weight with couplings		app. kg	2,2	2,6	2,6	3,3	3,3	3,6	6,7	8,5	-	-	-	-	-
Weight with couplings MTW-VS		app. kg	-	-	-	-	-	-	-	-	2,4	2,4	3,7	3,9	7,3
Weight with couplings MTW-VF		app. kg	-	-	-	-	-	-	-	-	2,5	2,5	4,1	4,6	8,6
Weight with flanges		app. kg	-	-	4,0	4,9	4,9	6,5	8,3	11,7	-	-	-	-	-

<sup>1)</sup> -VS = vertical riser / -VF = vertical down pipe  
<sup>4)</sup> DIN EN 1092-2

<sup>2)</sup> Also supplied in lengths 165mm and 190mm

<sup>3)</sup> Also supplied in length 270mm

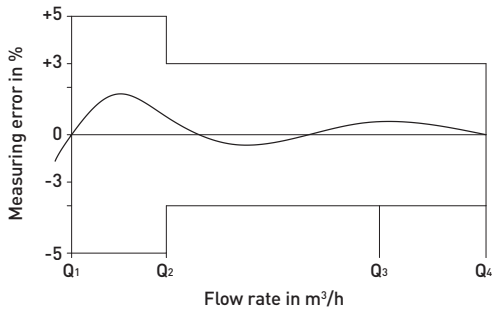
## Dimension Diagram



## Installation

Pipeline:	horizontal	—
	vertical	
Meter head:	upwards	↑

## Measuring error curve



## Materials

Housing with screwed connection:	Brass
Housing with flanged connection:	Cast iron
Sealing plate:	Brass
Impeller / measuring insert:	High grade synthetic materials
Bearing:	Hard metal, Sapphire, Chrome nickel steel
Seal material:	EPDM

## Typical Head Loss Curve

