Cold water

Meistream Plus

Bulk water meters with GWFcoder® register MP
for cold water up to 50 °C
DN 50, 65, 80, 100, 150

Your benefits

- Revolutionary Multiprotocol interface: **Investment security due to the interoperability of the meter**
- Transfer of the effective meter reading: **No data loss and guaranteed security of the billing data**
- No programming required when commissioning the meter in a readout system (Plug & Play) **Easy and fast on-site installation**
- Measurement of low flow rates: **Increased cost effectiveness**
- Removable measuring insert: **Retrofittability and replaceability guaranteed**
- One measuring insert for various bodies: **Lower storage costs**

Application

- Measurement of medium to high flow rates
- Measurement of low flow rates during offpeak periods
- Automated mobile or fixed network readout of relevant billing data
- Wired or radio remote readout of hard to access metering installations, e.g. meter pits, reservoirs
- Measuring of
  - Desalinated / demineralized water
  - Caustic soda up to 20%
  - Saline water up to 10%
  - Chlorinated water up to 1%
  - Glycol-water solutions up to 30%
  - Caustic solutions up to pH value 9

Features

- Horizontal installation position
- No straight flow section required before the meter
- Register can be turned through 355°
- Maximum operating pressure PN 16 bar
- Temperatures up to 50 °C
- Rotor is hydrodynamically, radially, and axially balanced
- Available in the standard installation lengths for WS and WP meters
- Powder coating provides optimum corrosion protection
- Non-ferrous metal design
- SVGW certification
- CE Conformity according to the European Measuring Instrument Directive (MID)
- Flood-proof register (IP68) with Multiprotocol interface (MP), 5 m cable and provision for a HRI pulser
- M-Bus standard unit load: 2 unit loads (3 mA)

Options

- High-resolution pulse generator HRI
  Documentation: HRI - EPe10213
- Radio module RCM® split
  Documentation: RCM® - EPe40232
- Radio module RCM®-LRW...
  Documentation: RCM®-LRW... - EPe40261

Technical Data

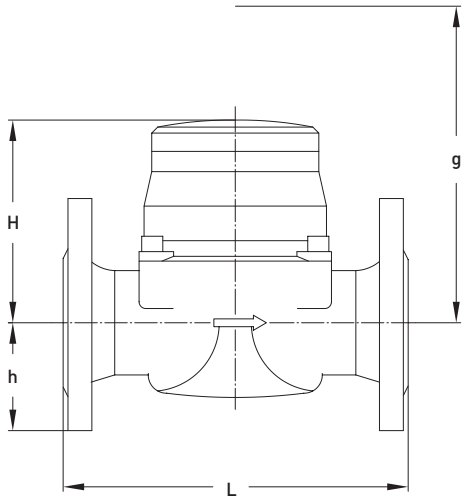
Nominal diameter [1]	**DN**	**mm**	**50**	**50**	**65**	**65**	**80**	**80**	**100**	**100**	**150**
Nominal pressure	**PN**	**bar**	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**
Nominal flow rate	**Q_3**	**m^3/h**	**35**	**35**	**40**	**40**	**63**	**63**	**100**	**100**	**250**
Overload flow rate (few minutes)	Q_4	m^3/h	55	55	60	60	120	120	160	160	400
Transitional flow rate ±2%	Q_2	m^3/h	0,13	0,13	0,16	0,16	0,25	0,25	0,4	0,4	0,63
Minimum flow rate ±5%	Q_1	m^3/h	0,07	0,07	0,1	0,1	0,13	0,13	0,2	0,2	0,35
Temperature		max.°C	50	50	50	50	50	50	50	50	50

Dimensions and weights											
Overall length	**L**	**mm**	**200**	**270** [2]	**200**	**300**	**225** [3]	**300**	**250**	**360**	**300** [4]
Height	H	mm	157	157	157	157	187	187	187	187	214
Height	h	mm	73	73	85	85	95	95	105	105	135
Dismantlig height of measuring unit	g	mm	237	237	237	237	307	307	307	307	393
Meter weight		app. kg	7,8	9,6	10,1	12	14,2	16,3	18,2	20,2	35,9
Measuring insert weight		app. kg	1,5	1,5	1,5	1,5	3,2	3,2	3,2	3,2	5,9
Body weight		app. kg	6,3	8,1	8,6	10,5	11	13,1	15	17	30

[1] Nominal size DN40 upon request
[2] Also available with 300 mm body length
[3] Also available with 200 mm body length
[4] Also available with 500 mm body length

MID certification data											
Nominal flow rate	**Q_3**	**m^3/h**	**25**	**25**	**40**	**40**	**63**	**63**	**100**	**100**	**250**
Temperature		max.°C	50	50	50	50	50	50	50	50	50
Measuring range			R315	R315	R400	R400	R400	R400	R400	R400	R630
Standard marking			R315	R315	R315	R315	R315	R315	R315	R315	R315

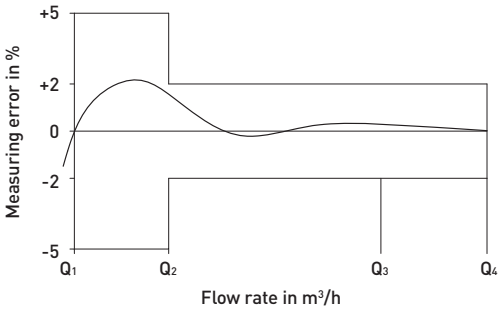
Dimension Diagram



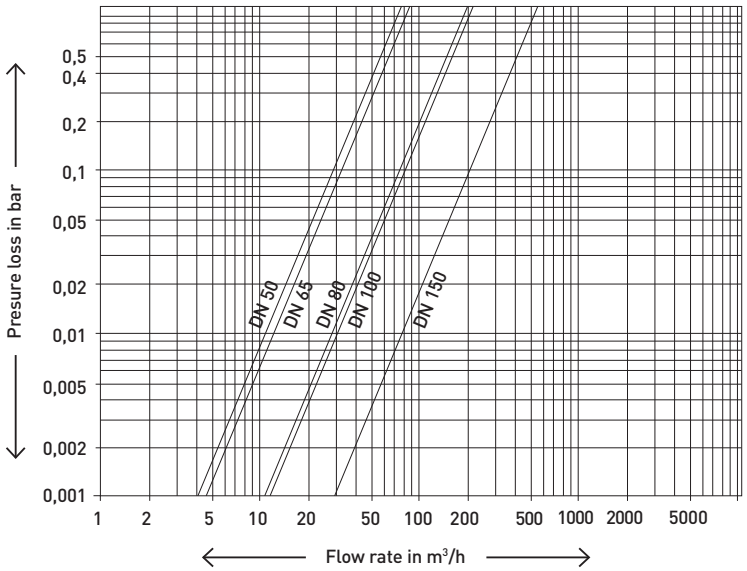
Materials

Body: Cast iron
Measuring insert: Plastic
Rotor: Plastic
Other materials: Brass / non-rusting steel

Measurement error curve



Typical Head Loss Curve



Installation

Pipeline: horizontal —

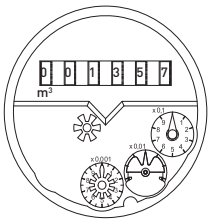
Meter head: upwards ↑

Commission

When commissioning the meter the measuring section must be filled slowly (bleed slowly).

Dial

DN 50 – DN 100

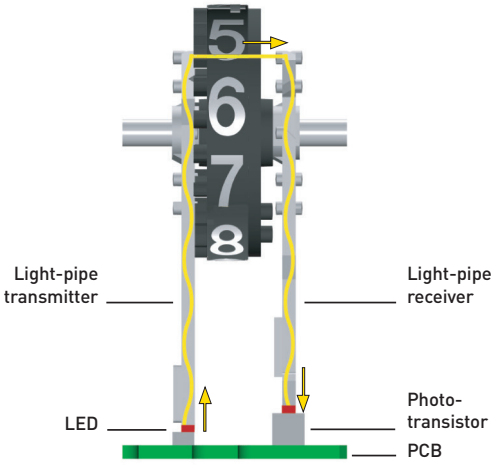


DN 150

Nominal size	DN	50–100	150
Smallest reading	m³	0,0005	0,005
Maximum register reading	m³	1'000'000	10'000'000

Pulse values HRI Pulser

Meter sizes	DN 50...100 1 Pulse = ...Liter	DN 150 1 Pulse = ...Liter
Meistream Plus	100 1000	1000 10000



GWFcoder®-Technology

In the GWFcoder®system, the individual rollers of the mechanical register are read out optoelectronically. The position of the various long asymmetrically arranged slits in the roller counters is scanned using 5 light barriers (light-pipe transmitter and receiver). The light barriers are implemented with phototransistors. LEDs, and light conductors, which are all consecutively scanned and evaluated. The precisely defined position of each individual roller counter is encoded as an absolute roller counter reading and read out as a part of the protocol via the GWFcoder® interface. This functioning principle is patented by GWF. The GWFcoder® interface, compared to a meter with a pulse output, has an incomparably higher level of information content and readout accuracy. A GWFcoder® register does not require a battery, which, in turn, does not compromise existing revision cycles. The readout device supplies the power for the readout.

Moreover, all products with multiprotocol functionality provide the flexibility to switch between wall readout (inductive or CL), Wired M-Bus or radio readout which leads to an easy and fast «Plug & Play» installation on site.

GWFcoder®-Data package

SCR: IEC 62056-21 Mode A (IEC 1107)

Medium:	Water
Absolute meter reading:	123654 m^3
Serial number:	43215678
Meter size:	DN 50

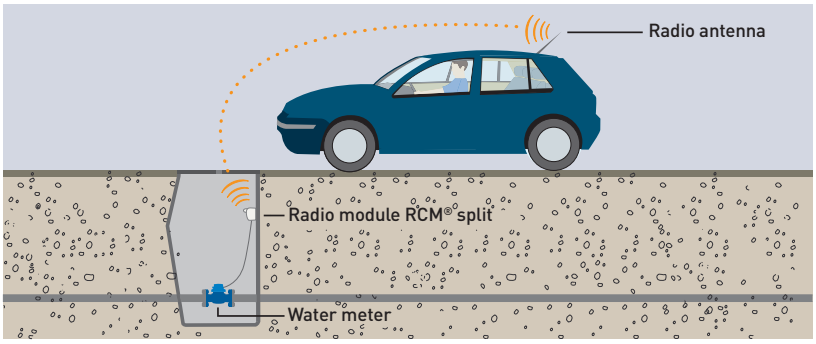
M-Bus: EN 13757

ECO: EN 13757-3

Example of use

Wireless read-out

Meter with GWFcoder® register is read out automatically by radio using a mobile infrastructure (for example radio module RCM® and MEx).



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