

## On-wall water meters

At home in lots of apartments:  
The Techem water meter with mature single-jet  
technology in two versions.

**Two different versions – one objective: reliable and mature technology for precise metering and simple installation in almost any application area. The on-wall water meter works using the single-jet principle, lots of versions make it into a true all-rounder.**

### In a nutshell

- Integration in the radio system, also retrospectively
- High measurement accuracy and measurement stability thanks to its sophisticated design
- radio 4 with an optical interface and flow direction recognition
- Low pressure loss and a high level of operational safety thanks to single-jet technology
- Suitable for cold water up to 30°C or hot water up to 90°C
- Suitable for wash stands and kitchen sinks, accessories for corner valves and fittings
- Special screw connections and extensions for different construction lengths
- Approved in accordance with the European Measuring Instruments Directive (MID)



### radio 4 model

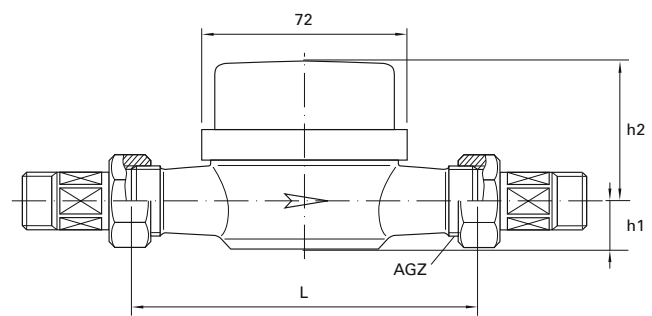
Thanks to a contact-free and non-wearing capacitive scan, it records the flow parameters of the mechanical meter, saving them in the radio module. The consumption values on the due date, the mid-month figures and month-end figures, as well as the meter data are transmitted by radio.

### vario 3 model

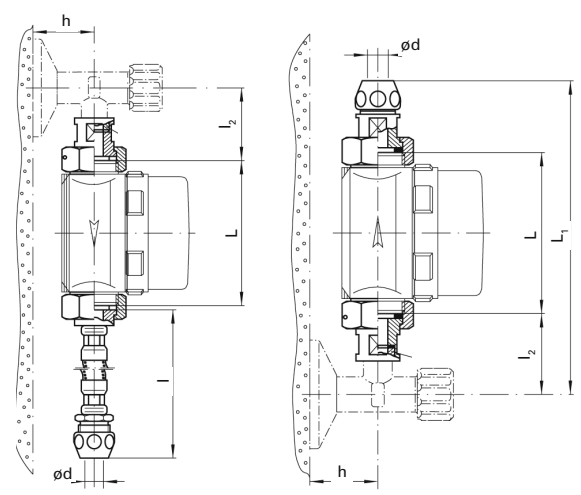
The version of the counter mechanism with an integrated modulator plate in vario 3 makes it possible to retrofit a radio module for wireless data transmission of the consumption data. The retrofitting is quite easy and uncomplicated.

**Technical data**

Nominal temperature:		up to (°C)				
Cold water meter:		30	30	30	30	30
Hot water meters:		90	90	90	90	90
Nominal flow rate Q3:	l/h	2.5	2.5	2.5	2.5	4.0
Lowest flow Q1:	m³/h	62.5/	62.5/	62.5/	62.5/	100/
horizontally/vertically:		62.5	62.5	62.5	62.5	100
Start-up flow rate:	l/h	8	8	8	8	15
horizontal approx.:						
Start-up flow rate:	l/h	14	14	22	22	22
vertical approx.:						
Measurement range		R40H/	R100H/	R40H/	R160H/	R160H/
horizontally/vertically:		40V	50V	40V	63V	63V
Pressure loss	bar	0.56	0.56	0.56	0.56	0.52
at Q3 approx.:						
Flow coefficient:	m³/h	3.2	3.2	3.2	3.2	5.05
Nominal pressure PN :	bar	10	10	10	10	10
Display range:		0.1 litre to 9,999 m³				
Construction length L:	mm	80	110	130	130	130
Connection thread on	AGZ	G ¾B	G ¾B	G ¾B	G 1B	G 1B
meter according to ISO						
228-1:						
Height h1:	mm	15	16	17	17	17
Height h2: AP vario 3	mm	58	54	54	54	54
Height h2: AP radio 3	mm	68	64	64	64	64
IP protection class:		65	65	65	65	65
Battery life (radio 4)		10 years + reserve				
Environmental		EN 14154 Class B				
conditions						



On-wall water meters



Wash stand installation

**Technical data radio**

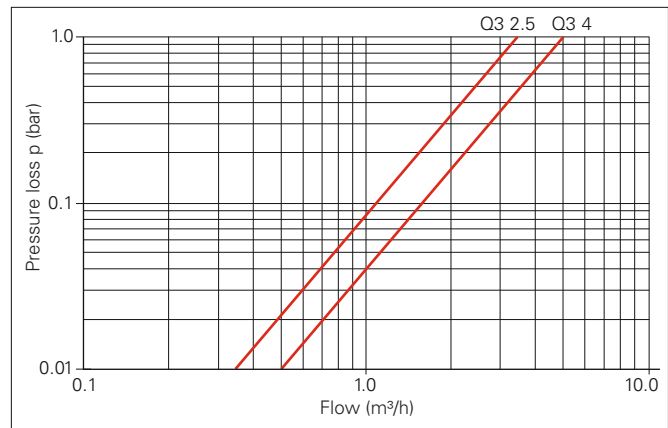
Radio mode		Proprietary
Radio data transmission		Due date value and status information, mid-month and month end consumption data from the previous 12 months
Transmitting frequency	(MHz)	868.95
Transmitting power	(W)	0.003 ... 0.015
Transmission period	(sec.)	0.008 ... 0.014
CE-conformity		According to guideline 2014/53/EU

Wash stand installation

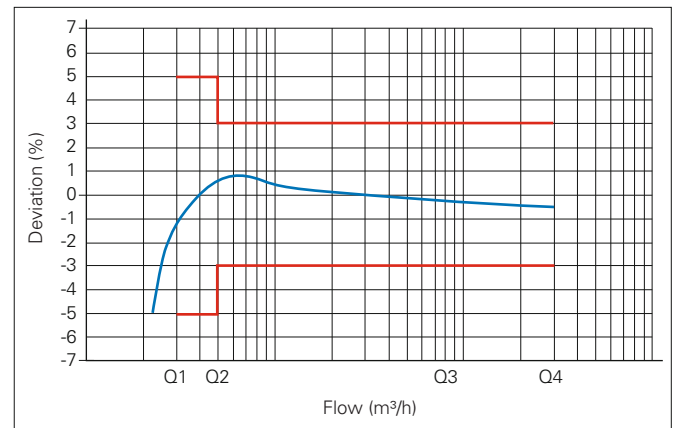
- L = 80 mm
- L1 = 204 mm
- l = approx. 400 mm
- l2 = 58 mm
- h = 20 mm
- ød = 10 mm

**Accessories**

Screw connections with thread connection according to DIN 2999, also in chrome-plated design. Screw connections with solder connection and accessories for wash stand installation



Pressure loss curve



Typical error graph

## DEVICE

The ambient temperature and humidity device from Lanssen is a plug-and-play room temperature and humidity transmitter. Much care has been taken to design a sleek, good looking device with high security and performance. The design allows for discrete integration when mounted in home environment.

## PERFORMANCE

The device has a robust design with an tamper detection if opened from the wall. A bit in the status message is set if sabotage is detected or restored.

The battery level is continuously monitored and a low level warning is issued when battery is nearing depletion. For maximum performance the device has 2 internal antennas.

## FIRMWARE

MODES	C1 Format A.
INTERVAL	2 minutes
ENCRYPTION	AES128 encryption OMS mode 5, Profile A.
DATA	Current, min 24 hours, max 24 hours, 24 hour values from the last 24 hour.

## SENSORS

TEMPERATURE	RANGE: -40° to +85° TYP ACC: ±0,2 at 5 to +60° ±0,5 at -20 to +85°
HUMIDITY	TYP ACC: ±2 %RH at 20-80 % RH. ±3% RH at 10-90 % RH ±3,5% RH at 0-100 % RH

## WARNINGS

TAMPER DETECTION	Product opened or removed from the wall
BATTERY	Low battery

## POWER/LIFETIME

POWER SUPPLY	3.6V Li-SOCI2, AA battery
VOLTAGE	2.4 to 3.6V
LIFESPAN	14 years typical, depending on configuration and operating temperature.
RADIO	14 dBm output power to 2 differential antennas
BATTERY	Soldered or optional battery holder.

## GENERAL INFORMATION

STANDARDS	2014/53/EU (RED) EN 13757-3/4:2013, OMS 4.0.2
TEMPERATURE	-40° to +85°
RELATIVE HUMIDITY	None condensing
MATERIAL	White, ABS
SIZE (W x L x D)	32 x 88,5 x 25,5mm

## DEVICES

LAN-WMBUS-C-TH-24	Ambient Sensor for temperature/humidity 24 hours data
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## TEMPERATURE SENSOR

The on-board temperature sensor is highly accurate with typical accuracy ±0,2.

## HUMIDITY SENSOR

The on-board humidity sensor is highly accurate, with typical accuracy ±2%RH.

## MEASUREMENTS

Temperature and humidity is measured and sent every 2 minutes using the Wireless MBUS protocol OMS compliant. This makes the sensor ideal for integration in data collecting systems or drive by solutions.

The data from the device is also protected using the AES128 encryption compliant with OMS standard.

## MOUNTING

The device is either mounted with adhesive tape or with screws.

