



Special Features

Economical meter replacement:

only the calibrated measuring cartridge is replaced!

The meter body remains permanently installed

Environmentally friendly:

The old measuring cartridge can be returned and recycled. Costly transport and reconditioning of the meter body is no longer necessary.

A special seating arrangement and the o-ring ensures the long term integrity of the co-axial seal between the cartridge and the body.

Patented design

(Patent No. DE 19944087C1)

The measuring principle is based on the proven XN wet-dial measuring mechanism:

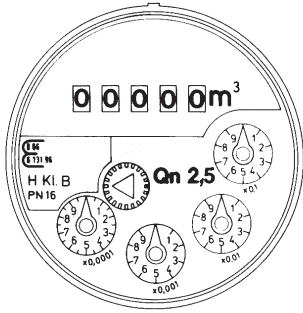
- Large digit roller counters eases reading
- The shafts and gears are individually lubricated bearings
- The patented labyrinth seal (two points) between the measuring chamber and the roller counter minimizes through flow, thereby reducing the intrusion of foreign matter.
- The roller counter and the roller counter changeover gears are encapsulated
- A patented star wheel minimizes centrifugal suction and turbulence in the dial face.
This reduces contamination of the dial face

Pattern Approvals

D 90
6.131.59

Size Qn 2.5
Available as
Metrological Class B

Dial

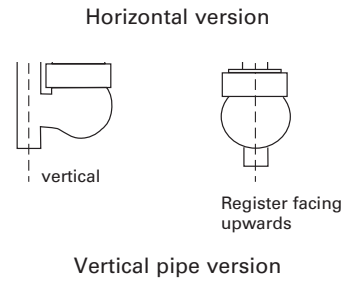
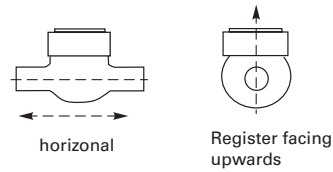


Performance Table

Body		horizontal	vertical pipe
Normal size (Nominal flow rate) Q_n	m^3/h	2.5	2.5
Maximum flowrate Q_{max}	m^3/h	5	5
Transitional flowrate Q_t	l/h	37.5	37.5
Minimum flowrate Q_{min}	l/h	20	20
Headloss at Q_{max}	bar	0.7	0.8
Flowrate at 1 bar head loss	m^3/h	6	5.5

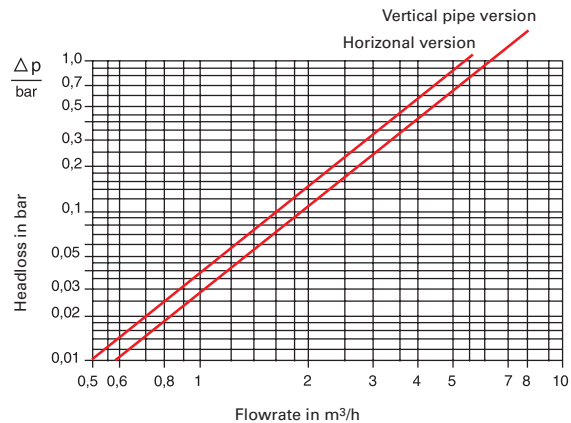
The Q_t and Q_{min} values are Sensus performance values. They greatly exceed the requirements for Metrological Class B

Installation

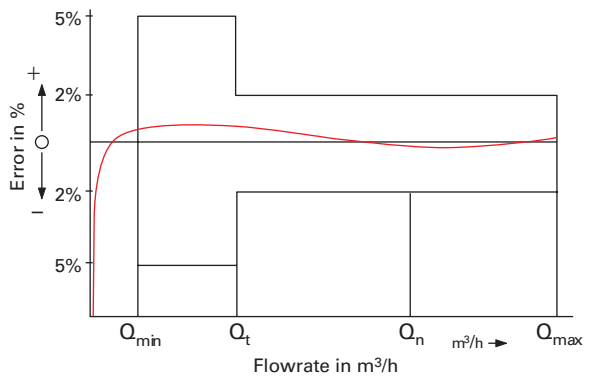


Typical Head Loss Curve

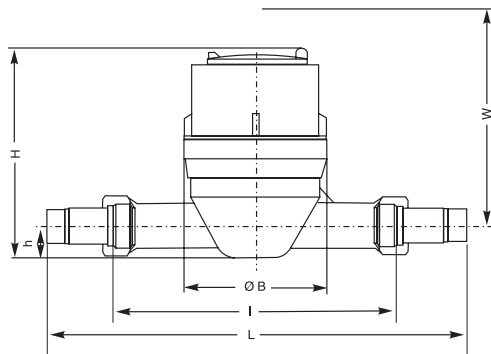
without non-return valve



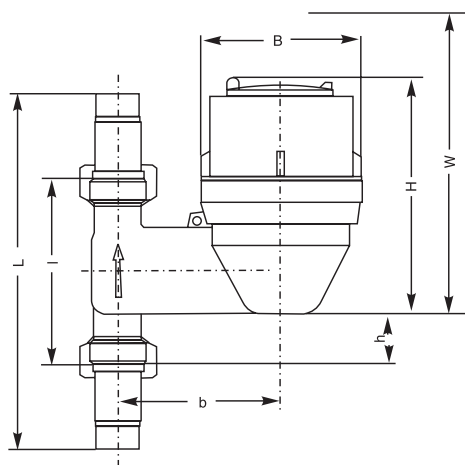
Typical Error Curve



Dimension Pictures



Horizontal version



Vertical pipe version

Dimensions and Weights

Horizontal version	
Nominal size Qn	2.5 m ³ /h
Connection size	20 mm
Tailpiece thread ¹⁾	¾ inch
Meter connection thread ²⁾	G 1 B inch
Body length I without tailpieces	190 mm
Body length L with tailpieces	288 mm
Height h	22 mm
Height H	106 mm
Width B	93 mm
Projecting b	95 mm
Exchange Height W min.	180 mm
Weight without tailpieces	1.65 kg

¹⁾ Conical Withworth pipe thread DIN 2999

²⁾ Pipe thread DIN ISO 228/1

Vertical pipe version	
Nominal size Qn	2.5 m ³ /h
Connection size	20 mm
Tailpiece thread ¹⁾	¾ inch
Meter connection thread ²⁾	G 1 B inch
Body length I without tailpieces	105 mm
Body length L with tailpieces	203 mm
Height h	27 mm
Height H	135 mm
Width B	93 mm
Projecting b	95 mm
Exchange Height W min.	180 mm
Weight without tailpieces	2 kg

Materials

Head ring / Body	Brass
Measuring cartridge MN XNP	Plastic
Roller counter	Plastic
Roller counter shaft and roller drive shaft	Stainless steel
Fan wheel bearings	Sapphire-agate
O-Rings	Powder coated
Body	Powder coated

All materials comply with KTW specifications

Available Designs

Horizontal versions (with 4 analogue dials) MN XNP Qn 2.5	Metrological class B Metrological class A
MN 1 XNP-RV Qn 2.5 (with non return valve)	Metrological class B Metrological class A
Measuring cartridge XNP 394	Metrological class B Metrological class A

Vertical pipe versions (with 4 analogue dials) MN XNP Qn 2.5	Metrological class B Metrological class A
MN 1 XNP-RV Qn 2.5 (with non return valve)	Metrological class B Metrological class A
Measuring cartridge XNP 394	Metrological class B Metrological class A

Accessories

Disassembly tool for XNP and R-XTP
Clip-in non-return valve for SPX MN XNP DN 20 up to +40 °C Approval code: DIN - DVDW 1137 ERV - XNP 124 Package consists of 20 per box, including stickers with the DVGW approval code for marking the meter.