Woltex

Horizontal Woltmann meter for water distribution applications

- Hermetically sealed register (copper can/mineral glass envelope)
- High flow-rates enduring capacities
- Interchangeable approved mechanisms without re-calibration
- Pre-equipped through Cyble as a standard

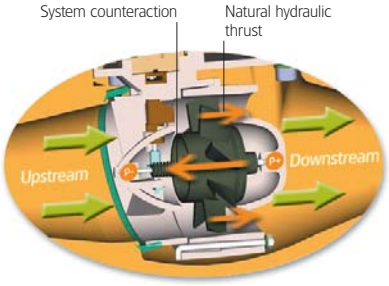
The Woltex is ideally suited for water distribution networks and wherever water must be metered with accuracy and reliability.
It is available in sizes DN 50 to 500.

Wide Measuring Range
The metrological performances of Woltex far exceed ISO/EEC Class B standards. Significant endurance capacities are ensuring accurate and reliable metering in time in a large scope of applications, such as water distribution networks, bulk billing, process control.

Endurance and Peak Flow Resistance
Woltex performances are the result of more than twenty years experience in Horizontal Woltmann design, from the first hydrodynamically balanced helix patent in 1985 still resulting in unmatched endurance capabilities, to the use of high quality materials.

Ease of Installation, Read and Maintenance
Woltex range is available in various lengths and connections to minimize installation costs. Interchangeable approved mechanisms allows easy maintenance without re-calibration.
Ease of read in the toughest environments (ie: flooded pits) is secured by orientable hermetically sealed register (copper can/mineral glass envelope).

Communication Device
Pre-equipped for future communication through Cyble.



▶ Hydrodynamic balance of helix

▶ Woltex indicator

▶ Cyble RF fitted on Woltex with specific lid

Working Principle

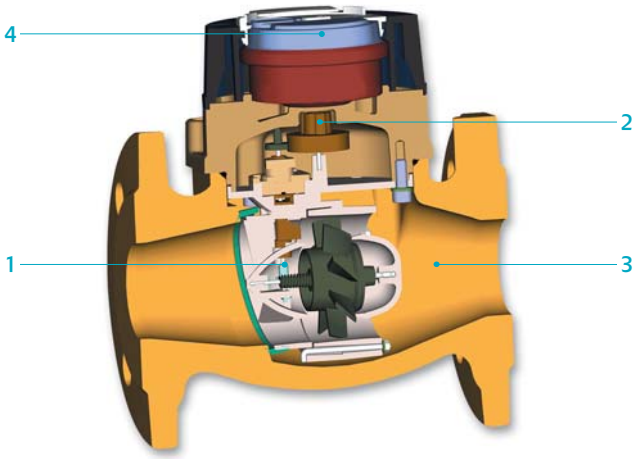
The water velocity is rotating the horizontal axis propeller. Special shape of its outlet bearing 1 is counteracting the natural hydraulic thrust applied on the propeller then preventing any downstream pivot wear.

This hydrodynamic balance was firstly patented on Woltex range in 1985 and still features the product with unmatched enduring capacities. Most sizes features two EEC/ISO approvals for the same meter, which both secure low flow rate and high overload accuracy in time.

The propeller rotation is transmitted to the register by a protected gear transmission and direct magnetic coupling 2.

The cast iron body 3 is durably protected against the effects of corrosion by epoxy powder coating.

The hermetically sealed copper can/mineral glass register 4 is safeguarding the read and integrity of the indicator in the toughest environments (flooded pits, mechanical tampering attempts, ...).

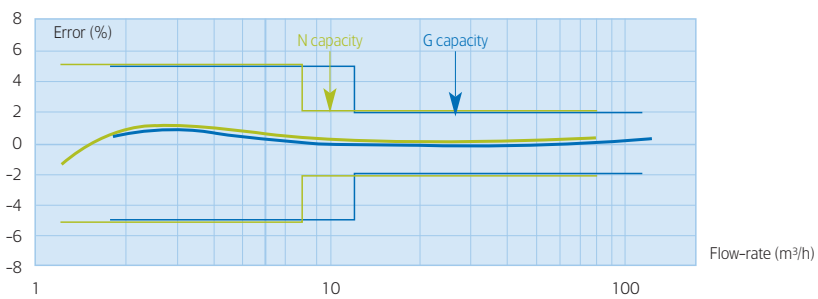


Communication

Woltex is supplied pre-equipped with Cyble Target
Allows communication and remote reading through:
- Pulse output (Cyble Sensor)
- M-Bus protocol (Cyble M-Bus)
- Radio frequency wireless link (Cyble RF)

These Cyble modules allow the Woltex meter to be connected with various associated systems if and when desired.
They are particularly adapted to commercial and industrial applications where a need for frequent meter monitoring is expressed especially in hard-to-read locations.

N and G Approved Range



Metrological Characteristics

Typical Performance

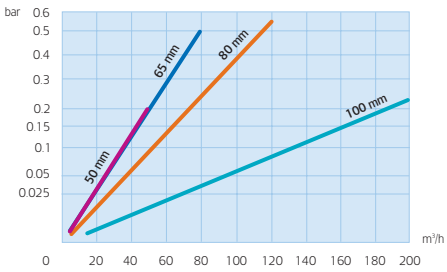
Nominal diameter (DN)	mm	50	65	80	100	125	150	200	250	300	400	500
	inches	2"	2" 1/2	3"	4"	5"	6"	8"	10"	12"	16"	20"
Starting flow rate	m³/h	0.2	0.25	0.3	0.4	0.4	1.1	1.6	3	10	15	20
Accuracy ± 2% from*	m³/h	0.4	0.6	1.2	1.5	1.5	3	3.5	5	15	30	40
Accuracy ± 5% from*	m³/h	0.35	0.5	0.75	0.9	1.2	1.5	2.5	3.5	12	25	30
Admissible peak flow (10' max.)	m³/h	90	200	250	300	300	700	1 000	1 500	2 500	4 500	7 000
Max. admissible flow rate	m³/h	50	80	120	200	200	500	800	1 200	2 000	3 000	5 000
Head loss at Qmax	bar	0.2	0.5	0.55	0.23	0.23	0.15	0.12	0.12	0.2	0.17	0.3
Max. admissible temperature	°C						50					
Max. admissible pressure (LP version)	bar						20					
Max. admissible pressure (HP version)	bar	-	-	-	50	-	50	50	50	50	-	-
Min. scale interval	L			5					50			
Indicating range	m³			9999999.9					99999999			
Cyble HF pulse weight	L			100					1 000			

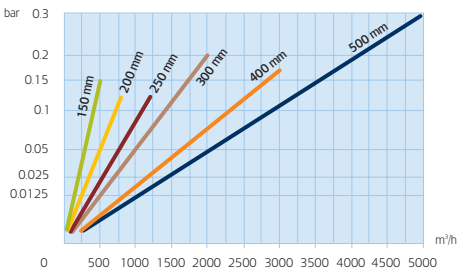
* Average values.

EEC Approval Values

Nominal diameter (DN)	mm		50	65	80	100	125	150	200	250	300	400	500
	inches		2"	2" 1/2	3"	4"	5"	6"	8"	10"	12"	16"	20"
EEC/ISO class approval							Class B all positions						
Nominal flow rate Qn	m³/h	G	25	40	60	100	-	250	400	600	1 000	1 500	2 500
		N	15	25	40	60	100	150	250	400	600	1 000	1 500
Max. flow rate Qmax	m³/h	G	50	80	120	200	-	500	800	1 200	2 000	3 000	5 000
		N	30	50	80	120	200	300	500	800	1 200	2 000	3 000
Accuracy ± 2% class B: Qt from	m³/h	G	5	8	12	20	-	50	80	120	200	300	500
		N	3	5	8	12	20	30	50	80	120	200	300
Accuracy ± 5% class B: Qmin from	m³/h	G	0.75	1.2	1.8	3	-	7.5	12	18	30	45	75
		N	0.45	0.75	1.2	1.8	3	4.5	7.5	12	18	30	45
Max. temperature	°C							30					
EEC approval certificate								F-02-G071					

Head Loss





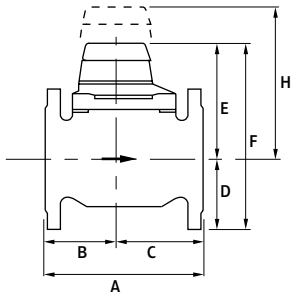
Variants and Options

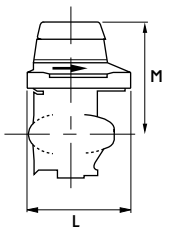
- Wire sealed metallic cap equipped with a lockable lid is available as an option for harsh environments.
- Hot water up to 130°C – high pressure PN40 versions available on request.

Woltex metallic cap version

Dimensions

Nominal diameter (DN)	mm	50	65	80	100	125	150	200	250	300	400	500
	inches	2"	2" 1/2	3"	4"	5"	6"	8"	10"	12"	16"	20"
Pressure version		**LP**	**LP**	**LP**	**LP/HP**	**LP**	**LP/HP**	**LP/HP**	**LP/HP**	**LP/HP**	**LP/HP**	**LP**
End connection LP		Flange PN 10/16						Flange PN 10 or 16				
End connection HP		-	-	-	Flange PN 25/40			Flange PN 25 or 40				-
• Meter												
A (length) ISO	mm	200	200	200	250	250	300	350	450	500	600	800
DIN	mm	200	200	225	250	-	300	350	-	-	-	-
ISO long	mm	300	300	350	350	-	500	-	-	-	-	-
AS (Australia/UK)	mm	311	-	413	-	-	-	-	-	-	-	-
B	mm	100	100	100	111	111	139/134	164	214	200	250	350
C	mm	100	100	100	139	139	161/166	186	236	300	350	450
D	mm	82.5	92.5	100	110/122	110	142.5/157	171/181	204/220	230/257.5	290/330	357.5
E	mm	160	160	160	169	169	194	220	195	342	342	342
F	mm	243	253	261	279/343	294	339/401	391/401	399/415	564/600	632/673	689
G	mm	165	185	200	220/235	220	285/300	340/375	405/450	460/515	580/660	715
H	mm	262	262	262	309	309	395	420	395	729	729	729
Weight	kg	11.4	12.6	14.1	19.5/30	19.5	34/55	55/83	75/111	175/270	255/510	390
• Mechanism												
L	mm	123	123	123	166	166	212/235	235/332	256/290	350	350	350
I (max. width)	mm	148	148	148	182/212	182	273/294	276/300	276/310	426	426	426
M	mm	160	160	160	169	241	194	195	195	342	342	342
Weight	kg	3	3	3	5.4/7	5.4	7.8/12.6	8.5/13.5	8.5/15	54/63	54/63	54





Installation Requirements

- Woltex could be installed regardless of position (EEC/ISO approval class B all positions).
- Installation of a strainer upstream of the meter is recommended to protect the hydraulics against raw particles (see Actaris strainer leaflet).
- We recommend the installation of a flow straightener directly upstream of the meter to cancel the effects of hydraulic perturbations (ie swirls, dissymetric velocity flow profiles) on Horizontal Woltmann accuracy (see Actaris straightener leaflet).

For more information, please contact your local agency.

Actaris
11, boulevard Pasteur
67500 Haguenau – France
For more information, see www.actaris.com

tel +33 3 88 90 63 00
fax +33 3 88 73 23 20