

WHAP



HORIZONTAL AXIS WOLTMANN METER FOR HEATING WATER

WHAP is a mechanical meter designed for use with heating water at temperatures up to 130 °C. This Woltmann meter is the ideal primary element for a separate energy meter, combined with a separate electronic unit and a pair of temperature sensors. A complete range of vane-wheel meters from DN50 to DN300 is available. The meter is compatible with Maddalena KS3C calculators and KPTEG sensors.

WHAP

GENERAL FEATURES

- Measuring principle: axial turbine
- DN: 50 ÷ 300
- MID MI-004 certified
- Accuracy class: 2 (EN 1434)
- Flanged cast iron body, internally and externally coated
- Hermetically sealed register (IP68), 360-degree rotatable
- Direct reading on 7-digit numerical rollers
- Supplied with reed switch pulse emitter
- Horizontal and vertical installation



GENERAL TECHNICAL DATA

Measurement method	Ultrasonic; time of flight (TOF)
Accuracy class (MID)	Class 2
Environmental class	Class C
Mechanical class	M1
Electromagnetic class	E2
Storage temperature	-20°C ÷ +60°C
Protection class	IP68
Module B nr.	SK 11-MI004-SMU001
Module D nr.	SK 23-QD-SMU003

PULSE OUTPUT TECHNICAL DATA

Type	Open drain
Pulse length	100 ms
Pulse type	Synchronous
Pulse options	DN50 ÷ DN125: 1/100L DN150 ÷ DN300: 1/1000L
Cable length	3 m
Voltage	Max: 12 Vdc
Current	Max: 10 mAdc
Closed-contact resistance	100 Ω
Maximum output pulse frequency	10 Hz

FLOW SENSOR TECHNICAL DATA

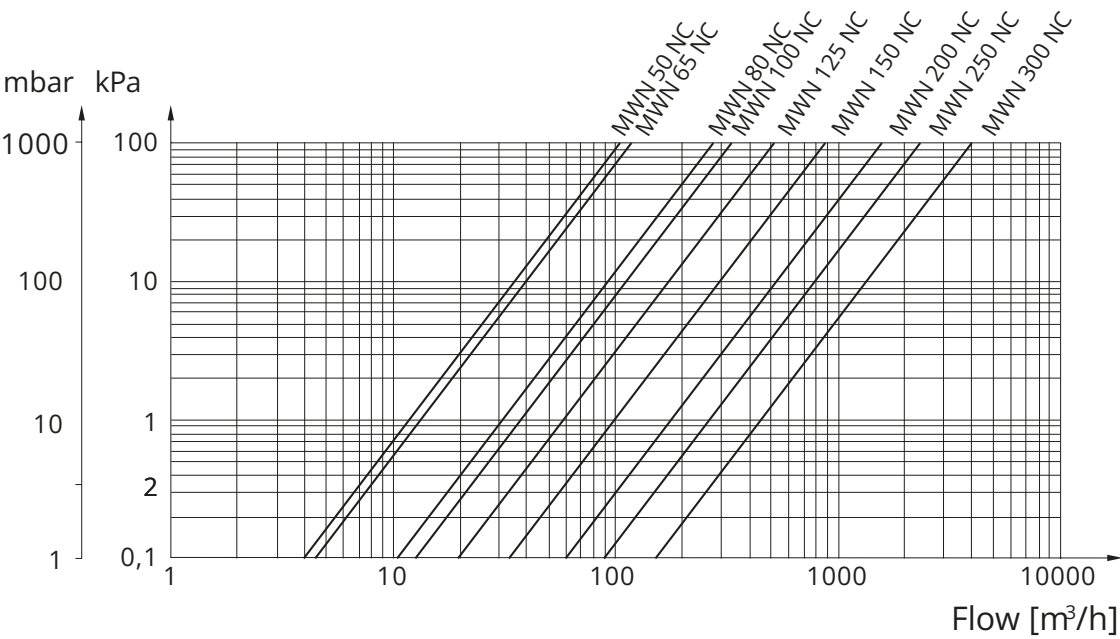
Installation position	Any U0-D0
Flow range	1:25
Temperature range	+1°C ÷ +130°C
Recommended temperature range for heating applications	+10°C ÷ +130°C
Maximum temperature	150°C for 2000 hours
Maximum overload	1,25 x q _p
Nominal pressure	DN50 ÷ DN200: PN16 DN250 ÷ DN300: PN10

METROLOGICAL CHARACTERISTICS

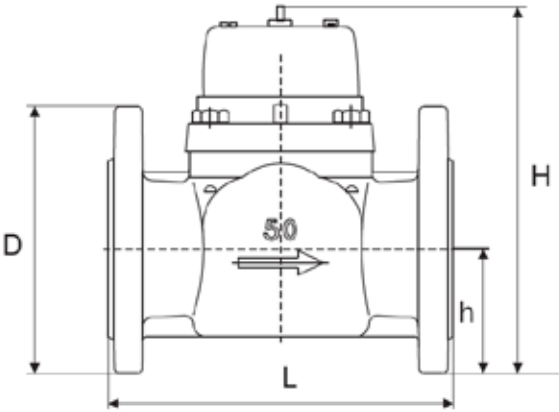
Diameter	mm	50	65	80	100
	Inches	2	2 1/2	3	4
q _p	m ³ /h	15	25	40	60
q _s	m ³ /h	30	50	80	120
q _i	m ³ /h	0,6	1	1,6	2,4
Starting flow	l/h	250	300	350	600
ΔP@q _p	mbar	16,5	37,2	16,9	26,8
kv	m ³ /h	105	122	279	341
Q@0.25bar	m ³ /h	52	61	132	176

Diameter	mm	125	150	200	250	300
	Inches	5	6	8	10	12
q _p	m ³ /h	100	150	250	400	600
q _s	m ³ /h	200	300	500	800	1200
q _i	m ³ /h	4	6	10	40	60
Starting flow	l/h	1100	2000	4000	8000	15000
ΔP@q _p	mbar	31,0	25,4	21,0	25,5	19,0
kv	m ³ /h	507	852	1556	2398	4024
Q@0.25bar	m ³ /h	274	427	787	1155	2057

PRESSURE LOSS



DIMENSIONAL CHARACTERISTICS



Diameter	mm	50	65	80	100
	Inches	2	2 1/2	3	4
L	mm	200	200	225	250
h	mm	72	83	95	105
H	mm	187	197	219	229
D	mm	165	185	200	220
Weight	kg	9,9	10,6	13,3	15,6

Diameter	mm	125	150	200	250	300
	Inches	5	6	8	10	12
L	mm	250	300	350	450	500
h	mm	120	135	160	193	230
H	mm	257	357	382	427	497
D	mm	250	285	340	400	460
Weight	kg	18,1	40,1	51,1	75,1	103,1