

Hot water meter

Vane wheel

AT 7029

Internet_Variants

Dimension range	PN	Temperature range	Material
G 3/4-G 2 DN 20-40	16	+10 °C to +130 °C, short term 150 °C	Brass

Range of application

For volume measuring of heating and cooling carriers with registration of consumed amount. Suitable as a flow sensor for energy measuring (in combination with integrator AT 7274 and temperature sensor pair AT 7276).

Program text

UGE.35 Meter for flow, pipe mounted with digital display, accumulated value

Flow sensor with energy measuring AT 7029 with built in pulse sensor q_n/h , DN, flanged or threaded, PN 16, 1 pulse/ liter.

Quality Assurance

Performance according to SWEDAC STAFS 2006:4.

EG-type approval in class B. PTB-approval no 22.16/95.07.

Detail specification

1	Body	brass	stove enamelled
2	Insert	polyphenylene sulfide	
3	Vane wheel	polyethersulfone	
4	Layer	hard metal/sapphire	
5	Flanges	steel	stove enamelled

Dimensions and weight

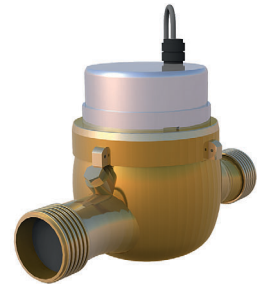
Flanged connection				
Connection DN	20	25	40	
q_p	2,5	6	10	
A	190	260	300	
B	111	128	129	
C	105	115	150	
D	46	51	68	
E	95	101	131	
Weight	3,5	4,8	8,0	

Measurements in mm, weight in kg.

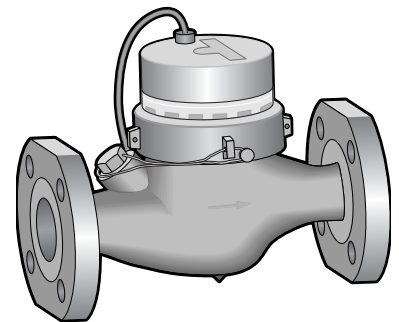
Threaded connection (modell G)

Threaded connection				
Connection DN	20	20	25	40
q_p	1,5	2,5	6	10
A	190	190	260	300
B	118	118	124	127
D	36	36	46	63
E	97	97	103	140
Vikt	2,0	2,1	2,9	5,2

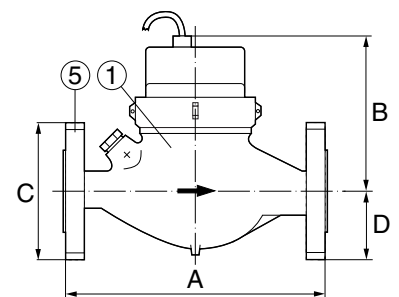
Measurements in mm, weight in kg.



AT 7029G



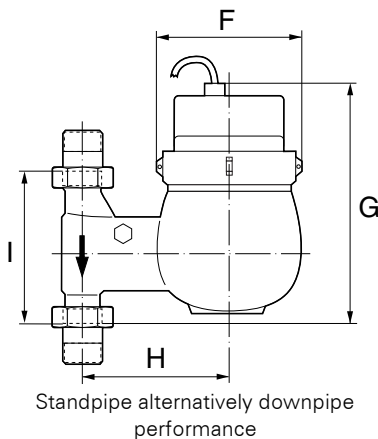
AT 7029



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Threaded connection, standpipe (modell GS) and downpipe performance (modell GF)

Threaded connection, standpipe and downpipe performance				
Connection DN	20	20	25	40
q_p	1,5	2,5	6	10
F	97	97	103	140
G	155	155	170	190
H	82	82	94	120
I	105	105	150	200
Weight	2,0	2,1	3,3	5,0

Measurements in mm, weight in kg.

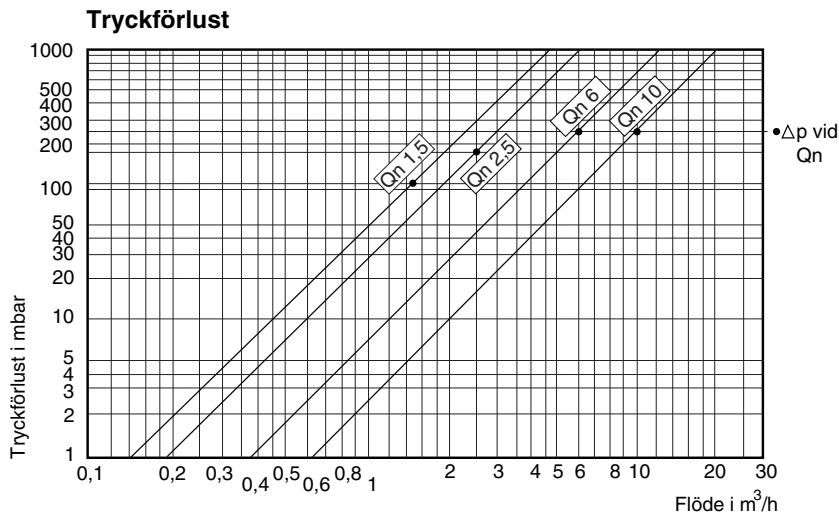
Function and design

The flow sensor is of dry running, multibeam vane wheel type. The vane wheel is the only movable part in the media, the down shift is done completely dry running. The counter is a rolling counter. The counter is a minimum grade of 1 liter. The entire m^3 is shown with white numbers and the liters in red.

The pulse sensing is done with a built in pulse sensor of the type Reed switch. The pulse number can be ordered as 1, 2, 5, 10 (standard) or 25 liter/pulse. The pulse sensor is magnetically shielded and delivered with a 2 meter connection cable. The meter body is internally and externally stove enamelled. and through that protected against corrosion and mechanical wear. The dial is provided with an indicator trot for optical reading in test bench.

Technical data

Connection DN	20	20	25	40
Nominal flow q_p , m^3/h	1,5	2,5	6,0	10
Allowed continuous load, max, m^3/h	1,5	2,5	6,0	10
Short term overload, q_s , m^3/h	3	5	12	20
Minimum flow, q_i liter/h	30	50	120	200
Pressure loss by q_p , bar	0,11	0,18	0,25	0,25
Flow by pressure loss 1 bar, m^3/h	4,7	6,0	12,5	20,5
Minimum grade, liter	1	1	1	1
Number of numeric pulleys	8	8	8	8



Accuracy	
Accuracy	Class 2 according to EN 1434

Specification pulse sensor	
Pulse sensor	Type Reed switch, fixed mounting
Max breaking current	0,1 A
Max voltage	28 V
Max transfer resistance	105 Ohm
Cable length	2 m

Sizing

The smallest meter that can handle the given flow is selected. Do not over dimension, during a borderline case, choose the smaller of the two options. Control that the pressure loss doesn't become to big. "Short term overload" is considered to be less than an hour per day or at most 200 hours per year.

Accessories and variants

AT 7029 is available with both flanges and a variant with threaded connections (add G to the end of the article number) for mounting in console in standard building height. The meter has threaded connections and also available in standpipe and downpipe performance (add GS or GF respectively in the article number see how to order). The pulse number can be ordered as 1 liter, 2,5 liters, 10 liters (standard) or 25 liters per pulse.

Installation

The flow sensor should be mounted with the dial upwards. In standard performance the meter should be mounted in a horizontal pipe line. Standpipe and downpipe performance (add S or F respectively) should be mounted on a vertical pipe line. For energy measuring the meter is mounted on the lower temperature, i.e. the return pipe for heating facilities and the inlet pipe for recycling and cooling facilities. A straight pipe before this meter is not required. On the other hand a

filter should be mounted up stream from the meter. The system should be clean flushed before mounting. During commissioning pressure surges in the system should be avoided.

Maintenance and spare parts

The flow sensor is according to Boverket's regulations subject to recurring control (meter revision) with an interval of 5 years, where the accredited control body will revise and control the meter. During this revision the worn out piece will be replaced. Spare parts for this are available in separate spare parts section.

Marking

The meter is red with a gray plastic lid. The meter dial is marked with manufacturer, q_n -value for meter size and max temperature respectively.

How to order

Example: AT 7029G25-6P10				
AT 7029	G	25	-6	P10
Article number	Performance - = Flanged performance G = threaded performance (standard) GS = threaded standpipe performance GF = Threaded down pipe performance	DN 20 25 40	q_p 1,5 2,5 6 10	Liter/pulse 1 10 (standard) 25

For RSK-number see RSK-register.