

AN 130

Flow sensor for water temperatures
from 5 °C to 130 °C, PN 16 and PN 25



Main characteristics

- Fully dry dial meter with no gear reduction in the wet chamber
- Wear resistant tungsten carbide / sapphire bearing
- Magnetic coupling protected against magnetite
- Pulse sender safe from interference
- Easy to repair construction with external regulation

Pattern Approval

DE-12-MI004-PTB002

Description

The flow sensors AN 130 are multi-jet dry dial vane impeller hot water meters, suitable for installing in central heating and cooling systems and remote warning systems. With their built-in pulse sender they are approved as flow sensors for heating meters according the European measuring instruments directive (MID) 2004/22/EG.

Versions for horizontal, rising and falling flow directions with screwings (PN 16) or flanges (horizontal flow, PN 25) are available.



AN130 q_p ... FAN



AN130 q_p ... SAN

Technical Data

Display:	00000.000 m ³
Working pressure:	16 bar 25 bar (Special version)
Working temperature:	10 ... 130 °C
Accuracy class:	Class 2 or 3
Pulse sender	
Pulse sender:	Reed switch permanently installed
Cable length:	2 m
Load capacity:	max. 0.1 A, max. 28 V
Contact resistance:	max 105 Ohm
Pulse value:	10 Litres / pulse For other pulse values see special versions

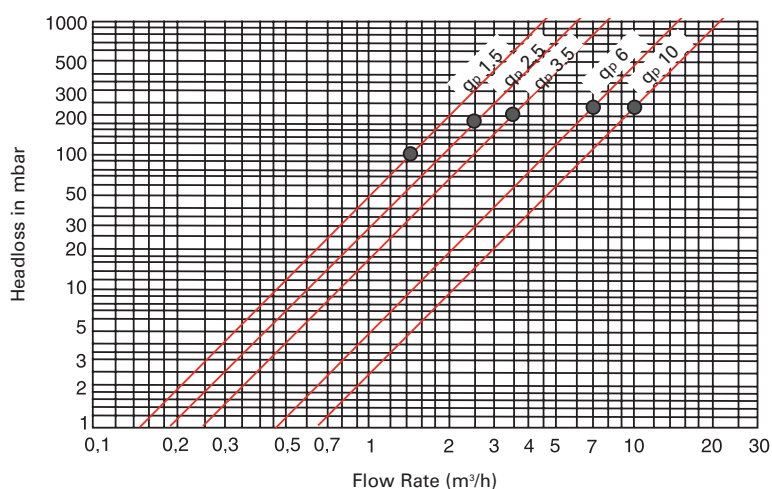
Materials

Casing:	Brass, painted
Impeller:	Plastic
Impeller cup:	Plastic
Bearing pin:	Tungsten carbide
Impeller bearing:	Sapphire
Magnetic coupling:	Ceramic permanent magnets

Performance Data

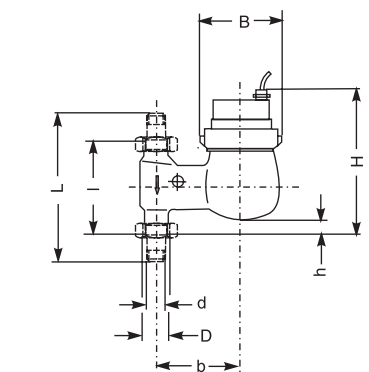
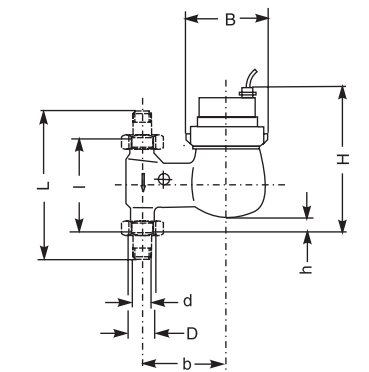
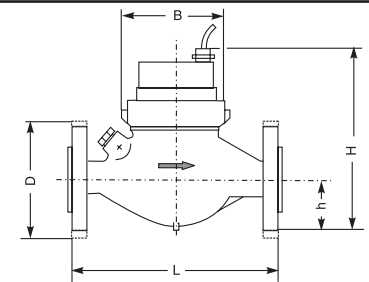
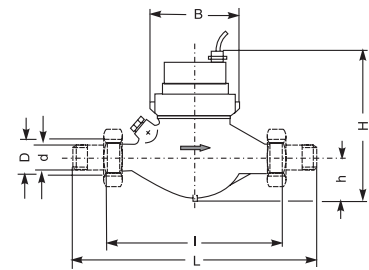
Nominal size	q_p		1.5	2.5	3.5	6	10
Continuous loading	q_p	m ³ /h	1.5	2.5	3.5	6	10
Max. flow rate (short-term)	q_s	m ³ /h	3	5	7	12	20
Ratio	$q_i : q_p$		1:50	1:50	1:50	1:50	1:50
Minimum flow rate	q_i	l/h	30	50	70	120	200
Pressure loss at	q_p	bar	0.11	0.18	0.19	0.24	0.25
Flow rate at 1 bar pressure loss		m ³ /h	4.7	6.0	8.1	12.2	20.1

Typical Head Loss Curve



Dimensions and Weights

Horizontal installation for threaded fittings, Type AN 130 q _p ... AN R ... K 10							
Size marking	q _p	m ³ /h	1.5	2.5	3.5	6	10
Nom. connection size	DN	mm	20	20	25	25	40
		inches	¾	¾	1	1	1½
Pipe connection thread ¹⁾	d	inches	R ¾	R ¾	R 1	R 1	R 1½
Meter stub thread ²⁾	D	inches	G 1	G 1	G 1¼	G 1¼	G 2
Installed length without fittings	l	mm	190	190	260	260	300
Installed length with fittings	L	mm	288	288	378	378	438
Height	H	mm	155	155	170	170	190
Height	h	mm	36.5	36.5	49	49	62
Width	B	mm	97	97	103	103	140
Weight of meter without fittings		~kg	2.0	2.1	2.9	2.9	5.2
Weight of meter with fittings		~kg	2.5	2.6	3.6	3.6	6.5
Horizontal installation with flanges, Type AN 130 q _p ... AN R ... K 10							
Size marking	q _p	m ³ /h	1.5	2.5	3.5	6	10
Nom. connection size	DN	mm	20	20	25	25	40
		inches	¾	¾	1	1	1½
Installed length	L	mm	190	190	260	260	300
Height	H	mm	157	157	179	179	197
Height	h	mm	46	46	51	51	68
Flange diameter	D	mm	105	105	115	115	150
Width	B	mm	95	95	101	101	131
Weight		~kg	3.5	3.5	4.8	4.8	8
Installation in falling line for threaded fittings, Type AN 130 q _p ... FAN R ... K 10							
Size marking	q _p	m ³ /h	1.5	2.5	3.5	6	10
Nom. connection size	DN	mm	20	20	25	25	40
		inches	¾	¾	1	1	1½
Pipe connection thread ¹⁾	d	inches	R ¾	R ¾	R 1	R 1	R 1½
Meter stub thread ²⁾	D	inches	G 1	G 1	G 1¼	G 1¼	G 2
Installed length without fittings	l	mm	105	105	150	150	200
Installed length with fittings	L	mm	203	203	268	268	338
Height	H	mm	160	160	175	175	195
Height	h	mm	13	13	22	22	30
Axial offset	b	mm	100	100	105	105	120
Width	B	mm	97	97	103	103	140
Weight of meter without fittings		~kg	2	2.1	3.3	3.3	5
Weight of meter with fittings		~kg	2.3	2.4	3.8	3.8	6.3
Installation in rising line for threaded fittings, Type AN 130 q _p ... SAN R ... K 10							
Size marking	q _p	m ³ /h	1.5	2.5	3.5	6	10
Nom. connection size	DN	mm	20	20	25	25	40
		inches	¾	¾	1	1	1½
Pipe connection thread ¹⁾	d	inches	R ¾	R ¾	R 1	R 1	R 1½
Meter stub thread ²⁾	D	inches	G 1	G 1	G 1¼	G 1¼	G 2
Installed length without fittings	l	mm	105	105	150	150	200
Installed length with fittings	L	mm	203	203	268	268	338
Height	H	mm	155	155	170	170	190
Height	h	mm	19	19	33	33	30
Axial offset	b	mm	82	82	94	94	120
Width	B	mm	97	97	103	103	140
Weight of meter without fittings		~kg	2	2.1	3.3	3.3	5
Weight of meter with fittings		~kg	2.3	2.4	3.8	3.8	6.3



Connection thread dimensions:

1) d Withworth tapered pipe thread R ½" to R 2" to ISO 7/1 = DIN 2999 Part 1

2) D Pipe thread G 1 to G 2 B to DIN ISO 228/1

Ordering Notes

Horizontal version for threaded fittings

Pulse sender, 10 Litres/pulse, according MID directive

Ordering Text	Order Ref No				
AN130 q _p 1.5 AN R ¾" K 10	88189300				
AN130 q _p 2.5 AN R ¾" K 10	88189500				
AN130 q _p 3.5 AN R 1" K 10	88189700				
AN130 q _p 6 AN R 1" K 10	88189800				
AN130 q _p 10 AN R 1½" K 10	88189900				

Horizontal version with flanges, PN 16

Pulse sender, 10 Litres / pulse, according MID directive

Ordering Text	Order Ref No				
AN130 q _p 1.5 ANF DN 20 K 10	88189304				
AN130 q _p 2.5 ANF DN 20 K 10	88189504				
AN130 q _p 3.5 ANF DN 25 K 10	88189704				
AN130 q _p 6 ANF DN 25 K 10	88189804				
AN130 q _p 10 ANF DN 40 K 10	88189904				

Falling line version for threaded fittings

Pulse sender, 10 Litres / pulse, according MID directive

Ordering Text	Order Ref No				
AN130 q _p 1.5 FAN R ¾" K 10	88189303				
AN130 q _p 2.5 FAN R ¾" K 10	88189503				
AN130 q _p 3.5 FAN R 1" K 10	88189703				
AN130 q _p 6 FAN R 1" K 10	88189803				
AN130 q _p 10 FAN R 1½" K 10	88189903				

Horizontal version with flanges, PN 25

Pulse sender, 10 Litres / pulse, according MID directive

Ordering Text	Order Ref No				
AN130 q _p 1.5 ANF DN 20 PN 25 K 10	88189351				
AN130 q _p 2.5 ANF DN 20 PN 25 K 10	88189551				
AN130 q _p 3.5 ANF DN 25 PN 25 K 10	88189751				
AN130 q _p 6 ANF DN 25 PN 25 K 10	88189851				
AN130 q _p 10 ANF DN 40 PN 25 K 10	88189951				

Rising line version for threaded fittings

Pulse sender, 10 Litres / pulse, according MID directive

Ordering Text	Order Ref No				
AN130 q _p 1.5 SAN R ¾" K 10	88189302				
AN130 q _p 2.5 SAN R ¾" K 10	88189502				
AN130 q _p 3.5 SAN R 1" K 10	88189702				
AN130 q _p 6 SAN R 1" K 10	88189802				
AN130 q _p 10 SAN R 1½" K 10	88189902				

Special versions on request



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Certified according to ISO 9001
Quality Management System Quality Austria Reg.no. 3496/0

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