

AN 130

Flowsensor for water temperatures from 5 °C to 130 °C, PN 16



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 to the European measuring instruments directive 2014/32/EU (MID).

Versions for horizontal, rising and falling flow directions with screwings or flanges are available.

Main characteristics

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

Pattern approval

- DE-12-MI004-PTB002

Technical data

Display	00000.000 m ³
Working pressure	16 bar
Working temperature	5 ... 130 °C
Accuracy class	Class 2 or 3

Pulse sender

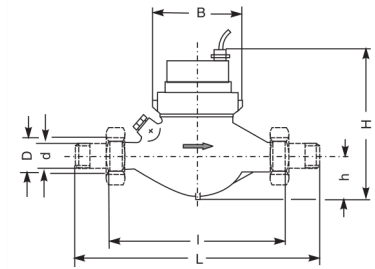
Pulse sender	Reed switch, permanently installed
Cable length	2 m
Load capacity	max. 0.1 A, max. 28 V
Contact resistance	max 105 Ohm
Pulse value	10 litres / pulse (for other pulse values see special versions)

Horizontal installation for threaded fittings, Type AN 130 q_p ...

AN R ... K 10

Size marking

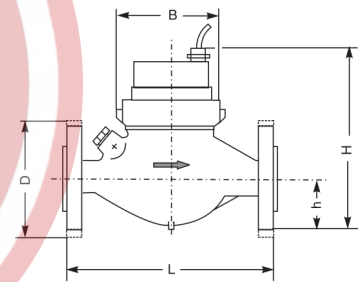
Nom. connection size	q _p	m ³ /h	1.5	1.5	2.5	3.5	6	6	10
Pipe connection thread ¹⁾	DN	mm	15	20	20	25	25	32	40
Meter stub thread ²⁾	d	inches	R ³ / ₄	R ³ / ₄	R ³ / ₄	R1	R1	R1 ¹ / ₄	R1 ¹ / ₂
Installed length without fittings	D	inches	G ³ / ₄	G1	G1	G1 ¹ / ₄	G1 ¹ / ₄	G1 ¹ / ₂	G2
Installed length with fittings	I	mm	165	190	190	260	260	260	300
Height	L	mm	244	288	288	378	378	378	438
Height	H	mm	155	155	155	170	170	170	190
Width	h	mm	34	36.5	36.5	49	49	49	62
Weight of meter without fittings	B	mm	96	97	97	103	103	103	140
Weight of meter with fittings		~kg	1.6	2.0	2.1	2.9	2.9	2.9	5.2
		~kg	2.1	2.5	2.6	3.6	3.6	3.6	6.5



Horizontal installation with flanges, Type AN 130 q_p ... AN R ... K 10

Size marking

Nom. connection size	q _p	m ³ /h	1.5	2.5	3.5	6	10
Installed length	DN	mm	20	20	25	25	40
Height	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

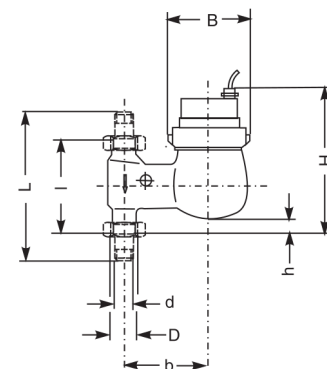


Installation in falling line for threaded fittings, Type AN 130 q_p ...

FAN R ... K 10

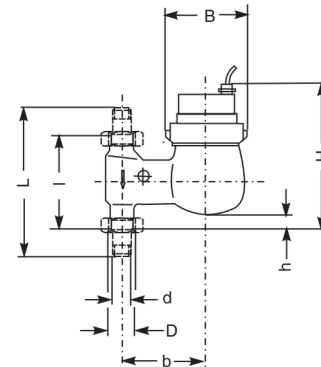
Size marking

Nom. connection size	q _p	m ³ /h	1.5	2.5	3.5	6	10
Pipe connection thread ¹⁾	DN	mm	20	20	25	25	40
Meter stub thread ²⁾	d	inches	R ³ / ₄	R ³ / ₄	R1	R1	R1 ¹ / ₂
Installed length without fittings	D	inches	G1	G1	G1 ¹ / ₄	G1 ¹ / ₄	G2
Installed length with fittings	I	mm	105	105	150	150	200
Height	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
Meter weight without fittings		~kg	2	2.1	3.3	3.3	5
Meter weight 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
Pipe connection thread ¹⁾	d	inches	R $\frac{3}{4}$	R $\frac{3}{4}$	R1	R1	R1 $\frac{1}{2}$
Meter stub thread ²⁾	D	inches	G1	G1	G1 $\frac{1}{4}$	G1 $\frac{1}{4}$	G2
Installed length without fittings	I	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
Meter weight without fittings		~kg	2	2.1	3.3	3.3	5
Meter weight with fittings		~kg	2.3	2.4	3.8	3.8	6.3



Connection thread dimensions:

1) d Withworth tapered pipe thread

2) D Pipe thread

R $\frac{1}{2}$ " to R 2" to ISO 7/1 = DIN 2999 Part 1

G 1 to G 2 B to DIN ISO 228/1

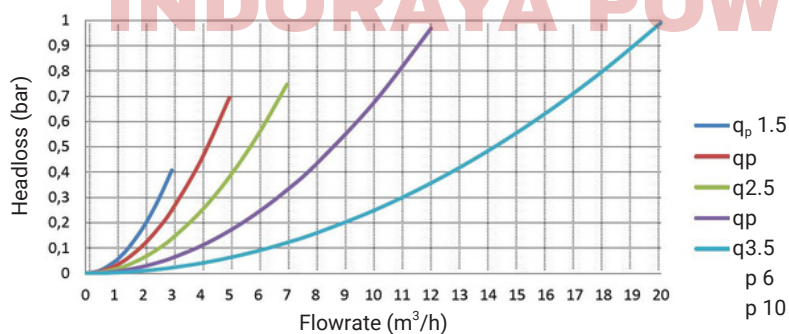
Performance data

Nominal size	q_p		1.5	2.5	3.5	6	10
Continuous load	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

Materials

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

Typical head loss curve



Order information

Type	Order	text	Order no.
Horizontal version for threaded fittings Pulse sender, 10 litres/pulse, according MID directive	AN130 q _p 1.5	AN R ¼" K 10	88189301
	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 6	AN R 1¼" K 10	88189801
	AN130 q _p 10	AN R 1½" K 10	88189900
Horizontal version with flanges, PN 16 Pulse sender, 10 litres / pulse, according MID directive	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	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 R1½" K 10	88189903
Rising line version for threaded fittings Pulse sender, 10 litres / pulse, according MID directive	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 R1" K 10	88189702
	AN130 q _p 6	SAN R1" K 10	88189802
	AN130 q _p 10	SAN R1½" K 10	88189902

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