

Flow measurement

Flowmeter MDH 600

description

- industrial inductive flow meter
- innovative and robust
- measurement of different liquids in a variety of sectors
- various process connections
- high measurement accuracy and repeatability
- very simple intuitive operation with Android app on Bluetooth connection
- M12 connector for electrical connection and status LED
- a plurality of outputs for different control systems



MDH600...

technical specifications

power supply	24 VDC +/-15%, other on request
input power	4,2 VA
technical versions	compact design
temperature range medium	compact design
diameter	DN 10 ...DN 400 (other diameters on request)
lining material	rubber (hard), rubber approved for potable water or PTFE or PFA (see Table 3)
electrode material	CrNi-stainless steel DIN 1.4571, Hastelloy C4, titanium, tantalum
sensor housing material	stainless steel
process connections	flange: stainless steel 1.4306/304 L, 1.4404/316 L food Process connections: milk pipe, clamp: stainless steel
pressure	PN10, PN16, PN25, PN40
min. conductivity of the measured fluid	20 µS (at a lower conductivity, upon agreement with promesstec GmbH)
measuring range (Qmin/Qmax)	bidirectionally for 0.2 to 12 m/s (1/60)
accuracy	accuracy up to 0,5%, repeatability up to 0,2%
pressure loss	negligible
additional electrodes	grounding and detection electrodes for empty piping (DN 15 ÷ DN 400)
empty piping detection	DN 15 ÷ DN 400
display	2 x 4-color LEDs for status indication
control	app for Android smartphone or tablet, Bluetooth communication interface
outputs	impulse/flow switch (max. 400 Hz), 4 ÷ 20 mA
ambient temperature	0°C...+55°C (connection head, electronics), others on request
flow sensor protection	IP65, IP67, IP68
electronics (connection head) protection	IP67

typical application areas

- water and wastewater industry,
- agriculture, biogas plants
- food industry, dairies, breweries
- pharmaceutical industry

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instantaneous flow rate corresponding to flow velocity (table 1)

diameter nominal (mm)	Qmin (m3/h) Qmin /Qmax	Qmax(m3/h)
	1/60 (0.2 m/s)	– (12 m/s)
DN 6	upon request	
DN 8	upon request	
DN 10	0,06	3,4
DN 15	0,13	7,6
DN 20	0,24	14,2
DN 25	0,35	21
DN 32	0,6	34
DN 40	0,9	54
DN 50	1,4	84
DN 65	2,4	144
DN 80	3,6	220
DN 100	5,6	340
DN 125	8,9	534
DN 150	13	760
DN 200	23	1350
DN 250	35	2115
DN 300	51	3050
DN 350	70	4150
DN 400	90	5426

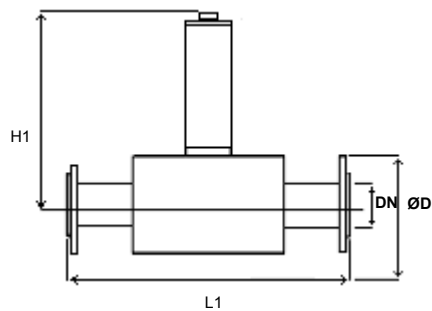
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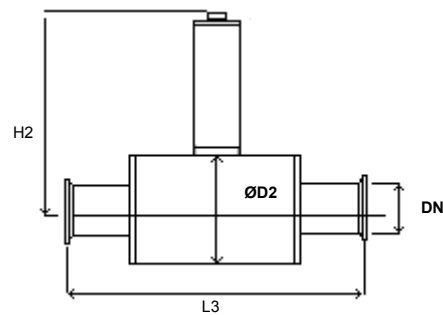
dimensions (table 2)

connection (mm)	constructional length (mm)			outside diameter (mm)		total height (mm)	
	flange	milk pipe	clamp	flange	sensor body	compact design	
				flange	milk pipe/ clamp	flange	milk pipe/ clamp
DN	L1	L3	L3	D	D2	H1	H2
6	u. r.						
8	u. r.						
10	-	179	189	-	-	146	-
15	200	172	182	95	70	146	150
20	200	176	182	105	80	146	155
25	200	186	182	115	90	151	160
32	200	197	189	135	100	156	165
40	200	220	210	145	116	161	173
50	200	231	217	160	136	169	183
65	200	u. r.	u. r.	180	151	179	191
80	200	u. r.	u. r.	195	177	186	204
100	250	-	-	215	-	199	-
125	250	-	-	245	-	212	-
150	300	-	-	280	-	227	-
200	350	-	-	335	-	257	-
250	450	-	-	405	-	300/-	-
300	500	-	-	440	-	325/-	-
350	550	-	-	500	-	355/-	-
400	600	-	-	565	-	385/-	-

flange version



dairy coupling DIN11851/ clamp DIN32676



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diameter and linings (others on request) (table 3)

connection (mm)	flange		milk pipe DIN11851		clamp DIN32676	
	rubber (hard)	PTFE	rubber (hard)	PTFE	rubber (hard)	PTFE
DN						
6	upon request					
8	upon request					
10	-	-	-	-	-	-
15	-	X	-	X	-	X
20	-	X	-	X	-	X
25	X	X	-	X	-	X
32	X	X	-	X	-	X
40	X	X	-	X	-	X
50	X	X	-	X	-	x
65	X	X	-	X	-	x
80	X	X	-	X	-	x
100	X	X	-	-	-	-
125	X	X	-	-	-	-
150	X	X	-	-	-	-
200	X	X	-	-	-	-
250	X	-	-	-	-	-
300	X	-	-	-	-	-
350	X	-	-	-	-	-
400	X	-	-	-	-	-

explanation

.....: the standard is not possible, please inquire
 X.....: design possible

pressure levels and diameters (table 4)

pressure level	diameter
PN10	DN350....DN400, others on request
PN16	DN250...DN300, others on request
PN25	DN10...DN200, others on request
PN40	on request
special solutions	on request

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order code MDH 600... order example: MDH 600-70-DN25-B11-C3-D4-E1-F1-G2-H2-I1

connection heads

-70 compact version with M12 connector, Bluetooth interface, status LEDs

diameter

-DN XX DN10...400 possible for example DN25 = diameter 25 mm = 1" (possibilities see table 2)

process connection

-B11 flange stainless steel 1.4306/304 L
 -B12 flange stainless steel 1.4404/316 L
 -B40 dairy coupling DIN 11851
 -B50 clamp DIN32676

transducer pressure area

-C1 PN10
 -C2 PN16
 -C3 PN25
 -C4 PN40

sensor lining (table 3)

-D1 hard rubber
 -D3 rubber potable water approved (material)
 -D4 PTFE

material electrodes

-E1 stainless steel 316Ti
 -E2 Hastelloy C4
 -E3 titan
 -E4 tantalum

sensor protection category

-F1 protection category IP65
 -F2 protection category IP67
 -F3 protection category IP68

output signal

-G1 pulse, switching contact
 -G2 4...20 mA, pulse, switching contact,

power supply

-H2 24 DC +/-15%

measuring range (information see table)

-I1 1/60 (standard version)