

## Flow measurement

### Flowmeter MDW 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



MDW 600...

#### 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	flange: stainless steel or steel ST37 with polyurethane coating sandwich: stainless steel
process connections	flange steel ST37 painted flange stainless steel 1.4306/304 L, 1.4404/316 L sandwich design stainless steel threaded design
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
- industrial applications such as heating circuits
- power station technology

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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

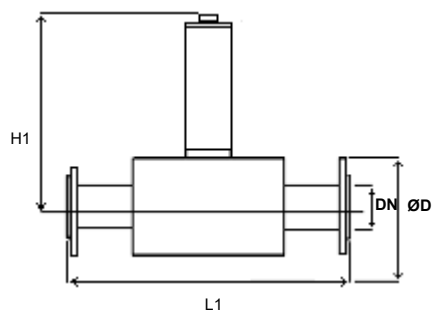
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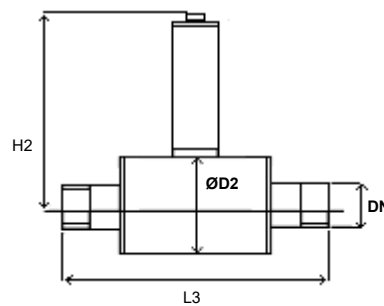
### dimensions (table 2)

connection (mm)	constructional length (mm)			outside diameter (mm)			total height (mm)	
	flange	sandwich	threaded	flange	sensor body		compact design	
				flange	flange/sandwich	threaded	flange/sandwich	threaded
DN	L1	L2	L3	D	D1	D2	H1	H2
6	u. r.							
8	u. r.							
10	-	90	193 (3/8")	-	51	-	146	-
15	200	90	196 (1/2")	95	51	70	146	150
20	200	90	206 (3/4")	105	61	80	146	155
25	200	90	206 (1")	115	71	90	151	160
32	200	90	233 (1 1/4")	135	82	100	156	165
40	200	110	256 (1 1/2")	145	92	116	161	173
50	200	110	261 (2")	160	107	136	169	183
65	200	130	-	180	127	151	179	191
80	200	130	-	195	142	177	186	204
100	250	200	-	215	168	-	199	-
125	250	200	-	245	194	-	212	-
150	300	200	-	280	224	-	227	-
200	350	200	-	335	284	-	257	-
250	450	-	-	405	-	-	300/-	-
300	500	-	-	440	-	-	325/-	-
350	550	-	-	500	-	-	355/-	-
400	600	-	-	565	-	-	385/-	-

**flange design**



**threaded design**



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

connection (mm)	flange		sandwich		threaded	
	rubber (hard)	PTFE	rubber (hard)	PTFE	rubber (hard)	PTFE
<b>DN</b>						
6	u. r.					
8	u. r.					
10	-	-	-	X	-	-
15	-	X	-	X	-	X
20	-	X	-	X	-	X
25	X	X	X	X	X	X
32	X	X	X	X	X	X
40	X	X	X	X	X	X
50	X	X	X	X	-	-
65	X	X	X	X	-	-
80	X	X	X	X	-	-
100	X	X	X	X	-	-
125	X	X	X	X	-	-
150	X	X	X	X	-	-
200	X	X	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	others on request
special solutions	others on request

## Flow measurement

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order code: MDW 600...

order example: MDW 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

-B10 flange steel ST37 painted  
 -B11 flange stainless steel 1.4306/304 L  
 -B12 flange stainless steel 1.4404/316 L  
 -B20 sandwich design  
 -B30 threaded design

### 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  
 -D5 PFA

### 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 impulse, switch contact  
 -G2 4...20 mA, impulse, switch contact

### power supply

-H2 24 DC +/-15%

### measuring range (information see table)

-I1 1/60 (standard version)