MECON
SAFETY CONTROL

TECHNICAL DATA SHEET

MAG - FLUX SE
MODBUS PROTOCOL / CURRENT OUTPUT

COMPACT **W**ITHOUT OPTICAL DISPLAY

Magnetic-inductive flow meter optimized for the implementation in automation systems

made in Germany

- Nominal diameters
  - Flange connection DN 15 (½“) ... DN 800 (32“)
  - Threaded connection G½ ... G2
  - Coupling connection DN 50 (2“) ... DN 300 (12“)
- Measuring ranges from 0 ... 18095 m^3/h
- Measuring accuracy ±0,5 % from the reading
- Without pressure loss
- Simple commissioning
- Compact design
- Minimum maintenance needs
- Long lifetime
- Output optionally with analogue output (4 ... 20 mA) active or digital output (MODBUS RTU)

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TECHNICAL DATA

Flow Sensor / Transducer

Measuring principle	» **Pulsed constant field (DC)**
Input » **Process Connection/Nominal Size**	 » **Flange connection DN 15 (½") ... DN 800 (32")** » **Threaded connection G ½ ... G 2** » **Coupling connection DN 50 (2") ... DN 300 (12")** » **Other connections (JIS, table)**
Measuring Accuracy *(Under reference conditions)* » **Error of measurement** » **Repeat accuracy**	 » **±0,5 % of the reading from 1 ... 10 m/s** » **±0,4 % of the reading from ±1 ... < 1 m/s** » **±0,15 % of the reading from 0,5 ... 10 m/s**
Installation position » **Inlet** » **Outlet**	 » **5 x DN** » **2 x DN**
Media temperature	» **-20 °C ... 80 °C**
Ambient temperature	» **-20 °C ... 60 °C**
Pressure limits	» **Flange connection rubber lining: max. 250 bar** » **Flange connection PTFE lining: max. 40 bar** » **Threaded connection PTFE lining: max. 40 bar** » **Coupling connection rubber lining: max. 16 bar**
Degree of protection	» **IP 67**

Medium conditions

Medium	» **Liquid**
Minimum conductivity	» **> 20µS/cm**
Flow speed limits	» **0 ... 10 m/s**

Specifications

Design	» **Fully welded steel fitting**
Material (Sensor) » Measuring tube » **Solenoid chamber** » **Lining of measuring pipe** » **Electrode material** » **Flange material**	 » **Stainless Steel** » **Steel** » **Hard Rubber, PTFE** » **Stainless Steel, Hastelloy, Titanium, Tantalum, Platinum** » **Steel, Stainless Steel**
Material (Transmitter)	 » **Stainless Steel** » **Steel**
Cable gland	» **M12 x 1**
Corrosion protection class	» **C2** *(slightly polluted atmosphere, dry climate)*

Electrical data

Power supply	» **18 ... 36 V DC**
Input	» **4 W**
Output	» **Analog 4 ... 20 mA** » **Digital MODBUS RTU (RS485)**
Load	» **Standard: ≤500 Ohm**

Dimensions Coupling Connection

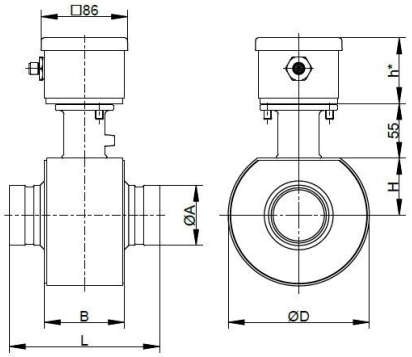

Fig. 1 Coupling connection dimensions

Tab. 1 Coupling connection dimensions

Nominal size			Installation length	Dimensions of the sensor housing		
DN		ØA (mm)	L (mm)	B (mm)	D (mm)	H (mm)
50	2“	60,3	150 (0/-2,0)	80	140	57
65	2½“	76,1	150 (0/-2,0)	80	155	63
80	3“	88,9	150 (0/-2,0)	80	170	70
100	4“	114,3	200 (0/-2,0)	120	210	86
125	5“	139,7	200 (0/-2,0)	120	240	98
150	6“	168,3	200 (0/-2,0)	120	285	117
200	8“	219,1	300 (0/-2,0)	200	350	143
250	10“	273,0	300 (0/-2,0)	200	440	180
300	12“	323,9	300 (0/-2,0)	200	520	213

Dimensions Threaded Connection

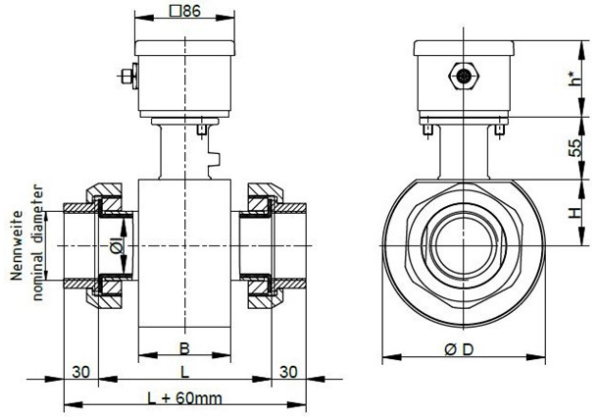

Fig. 2 Thread connection dimensions

Tab. 2 Dimensions of threaded connection

Nominal Size		Installation length	Dimensions of the sensor housing		
	Ø I * (mm)	L (mm)	B (mm)	D (mm)	H (mm)
G ½“	14,0	150 (0/-2,0)	80	130	53
G ¾“	19,0	150 (0/-2,0)	80	130	53
G 1“	27,0	150 (0/-2,0)	80	130	53
G 1¼“	33,0	150 (0/-2,0)	80	130	53
G 1½“	38,0	150 (0/-2,0)	80	130	53
G 2“	48,5	150 (0/-2,0)	80	140	57

Dimensions Flange Connection

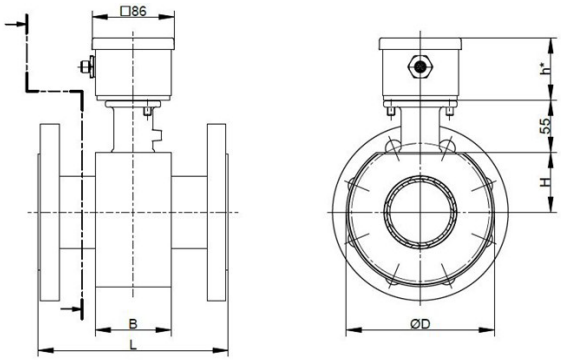

Fig. 3 Flange connection dimensions

Tab. 3 Flange connection dimensions

Nominal size		Installation Length	Dimensions of the Sensor Housing		
DN		**L** (mm)	**B** (mm)	**D** (mm)	**H** (mm)
15	½"	200 (0/-3,0)	80	130	53
20	¾"	200 (0/-3,0)	80	130	53
25	1"	200 (0/-3,0)	80	130	53
32	1¼"	200 (0/-3,0)	80	130	53
40	1½"	200 (0/-3,0)	80	130	53
50	2"	200 (0/-3,0)	80	140	57
65	2½"	200 (0/-3,0)	80	155	63
80	3"	200 (0/-3,0)	80	170	70
100	4"	250 (0/-3,0)	120	210	86
125	5"	250 (0/-3,0)	120	240	98
150	6"	300 (0/-3,0)	120	285	117
200	8"	350 (0/-3,0)	200	350	143
250	10"	450 (0/-4,0)	200	440	180
300	12"	500 (0/-4,0)	200	520	213
350	14“	550 (0/-5,0)	225	474	237
400	16“	600 (0/-5,0)	250	524	262
450	18“	600 (0/-5,0)	270	584	292
500	20“	600 (0/-5,0)	300	629	315
600	24“	600 (0/-5,0)	360	734	367
700	28“	700 (0/-5,0)	420	839	420
800	32“	800 (0/-5,0)	500	939	470

Ordering:

The designation code is made up as follows:

MAG57 _ _ - S_ _ _ 0 - 3_ AR /_ /FTH

① ② ③ ④ ⑤ ⑥ ⑦

① Lining

0	» **PTFE** *(Not available with coupling connection)*
1	» **Hard Rubber** *(Not available with threaded connection)*

② Nominal Pressure

1	» **PN 10 / JIS 10 K**
2	» **PN 16/ 150 class**
3	» **PN 25/ 300 class**
4	» **PN 40**
5	» **N 63**
6	» **PN 100**
7	» **PN 160**
8	» **PN 250**
9	» **Special Nominal Pressure**

③ Nominal Diameter

		max. Flow Rate (m³/h)	(l/min.)
A	» DN 15 (½“)	» 6,36	» 106,0
C	» DN 25 (1“)	» 17,67	» 294,5
D	» DN 32 (1¼“)	» 28,695	» 482,5
E	» DN 40 (1½“)	» 45,24	» 754,0
F	» DN 50 (2“)	» 70,69	» 1 178
G	» DN 65 (2½“)	» 119,4	» 1 991
H	» DN 80 (3“)	» 180,9	» 3 016
J	» DN 100 (4“)	» 282,7	» 4 712
K	» DN 125 (5“)	» 441,7	» 7 363
L	» DN 150 (6“)	» 636,1	» 10 602
M	» DN 200 (8“)	» 1130	» 18 849
N	» DN 250 (10“)	» 1 767	» 29 452
P	» DN 300 (12“)	» 2 544	» 42 411
Q	» DN 350 (14“)	» 3 463	» 57 726
R	» DN 400 (16“)	» 4 523	» 75 398
Y	» DN 450 (18“)	» 5 725	» 95 425
S	» DN 500 (20“)	» 7 068	» 117 809
T	» DN 600 (24“)	» 10 178	» 169 646
U	» DN 700	» 13 854	» 230 907
V	» DN 800	» 18 095	» 301 592

④ Connection standard and connection material

A	» EN 1092-1, W.Nr. 1.0460/1.0570
B	» EN 1092-1, W.Nr. 1.4404
C	» ANSI B16.5 150 RF, W.Nr. 1.0432/1.0570
D	» ANSI B16.5 300 RF, W.Nr. 1.0432/1.0570
F	» ANSI B16.5 150 RF, W.Nr. 1.4404/1.4571
G	» ANSI B16.5 300 RF, W.Nr. 1.4404/1.4571
K	» Coupling Connection
N	» Threaded Connection G

⑤ Electrode Material

1	» Stainless Steel
2	» Hastelloy
6	» Platinum
4	» Tantalum
3	» Titanium

⑥ Output / Communication

B	» 4 ... 20 mA (active)
M	» Modbus RTU

⑦ Option

A 01	One grounding electrode made of stainless steel
A 02	Two grounding electrodes made of stainless steel
A 03	One grounding electrode made of Hastelloy
A 04	Two grounding electrodes made of Hastelloy
A 05	One grounding electrode made of Titanium
A 06	Two grounding electrodes made of Titanium
A 07	One grounding electrode made of Tantalum
A 08	Two grounding electrodes made of Tantalum
A 09	One grounding electrode made of Monel
A 10	Two grounding electrodes made of Monel
A 11	One grounding electrode made of Platinum
A 12	Two grounding electrodes made of Platinum
B 06	With 3-point calibration certificate
B 07	With 6-point calibration certificate
B 08	With 5-point calibration certificate
B 11	TAG plate inscription in english
C 12	Acceptance test EN 10204:2004 3.1
FTH	Factory acceptance test to H protocol Material & Welding quality Welding check, Calibration Check
L 06	Lining Linatex - natural soft rubber
S 99	Sensor suitable for alternating field transmitter Transmag 2
Y 70	Painting C5M ISO 12944
Y 98	With Smart plug to connect Intermag 2 and Transmag 2
Y 01	Measuring range: 0 to ... m³/ h add in clear text
Y 04	Silicone-free materials
Y 15	Measuring-point number (max. 16 char.) specify in plain text
Y 16	Measuring-point number (max. 27 char.) specify in plain text
Y 17	TAG plate stainless steel