



# Integral Mount Magnetic Flowmeter Model SAD

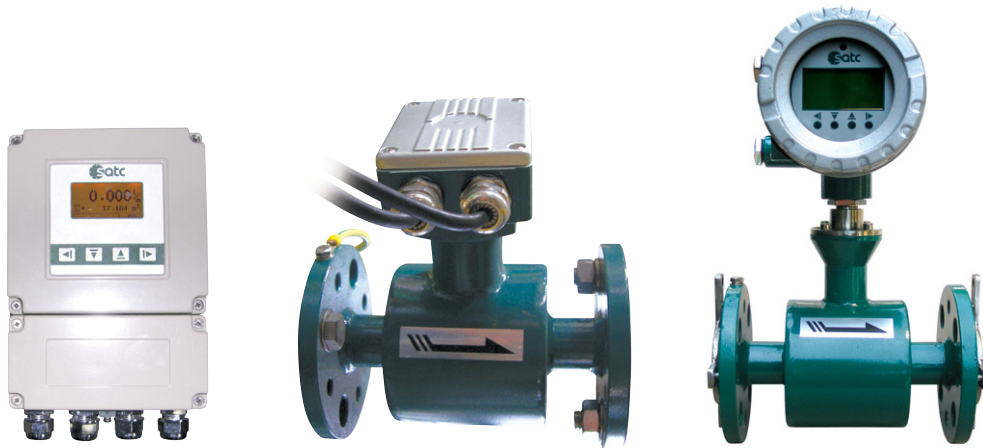


**SUPERDIAN**  
AUTOMATION TECHNOLOGY CO.,LTD  
[www.totalgauge.co.kr](http://www.totalgauge.co.kr)

# Magnetic Flowmeter

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### Dimensions



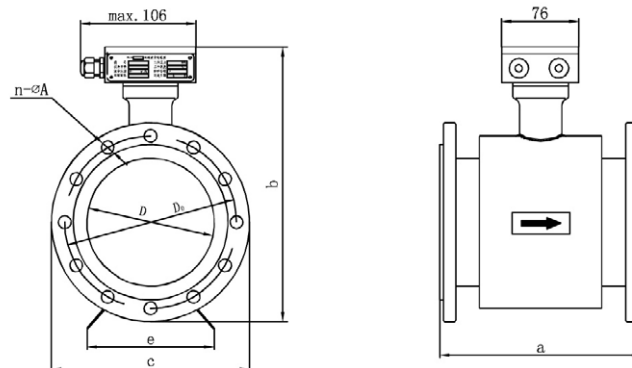
Diameter	DN10~2000	DN10~2000
Electrode Material	0Cr18Ni12Mo2Ti,Hc,Ti,Ta,Pt	0Cr18Ni12Mo2Ti,Hc,Ti,Ta,Pt
Lining Material	PTFE,Neoprene,Polyurethane	PTFE,Neoprene,Polyurethane
Medium	Conduct electricity liquid (including solid-liquid two-phase suspended liquid)	
Measured error	±0.3%,±0.5%,±1.0% of flow (according to the diameter)	
Medium conductivity	>5μ S/cm (Water)>20μ S/cm	
Velocity rang	0.3~12m/s (to select different flow unit)	
Connection Flanges	GB9119 (Chinese Standard)	
Medium Temperature	-25℃~+150℃ (Latex lining 65℃)	
Specified Pressure	0.6MPa~4.0MPa (higher pressure flowmeter could be ordered specially)	
Transducer Model	SAD Separate	SAD integrate
Protection Grand	IP65,IP67,IP68 (Separated type)	
Converter Model	SAZ-3/SAZ-3F	SAZ-3/SAZ-3F
Output Signal	4~20mA output, frequency/pulse output, no source contact point	
Communication	RS485	RS485
Application	Acid, alkali, water supply&sewerage,food,paper pulp, ore pulp and so on	
Display	Flow velocity, flow, percentage, conductivity, accumulated flow, accident alarm	
Language	Chinese or English	Chinese or English
Power supply	220vac, 24vdc	220vac, 24vdc
Setting Modality	Separated model	Separated model or Integrated model
Explosion-proof	Exdmib IIBT5-T6	Exd II (ia) ia IIC T5
Enterprise Standard	Q/SXCR 1-2004	Q/SXCR 1-2004

### Outline Dimension & Weight

#### Separated Model

Diameter (mm)	Specified pressure (MPa)	Outline Dimension of flowmeter				Dimension of Flange			Weight (kg)
		a	b	c	e	D	D°	n×A	
10	4.0	200	187	90		10	60	4×14	4
15	4.0	200	189	95		15	65	4×14	4
20	4.0	200	194	105		20	75	4×14	4
25	4.0	205	204	115		25	80	4×14	5
32	4.0	205	216	140		32	100	4×18	7
40	4.0	205	221	150		40	110	4×18	8
50	4.0	205	243	165		50	125	4×18	10
65	1.6	205	253	185		65	145	4×18	15
80	1.6	205	278	200		80	160	8×18	15
100	1.6	255	298	220		100	180	8×18	20
125	1.6	255	318	250		125	210	8×18	22
150	1.6	306	358	285		150	240	8×22	33
200	1.0	357	416	340		200	295	8×22	43
250	1.0	450	490	395	310	250	350	12×23	82
300	1.0	500	510	445	310	300	400	12×23	100
350	1.0	550	571	505	450	350	460	16×23	121
400	1.0	600	631	565	450	400	515	16×26	145
450	1.0	620	681	615	450	450	565	20×26	210
500	1.0	720	730	670	450	500	620	20×26	207
600	1.0	812	836	780	610	600	725	20×30	250
700	1.0	910	944	895	610	700	840	20×30	350
800	1.0	1060	1055	1015	610	800	950	24×35	460
900	1.0	1100	1170	1115	700	900	1050	28×35	550
1000	1.0	1200	1280	1230	700	1000	1160	28×35	680
1200	0.6	1200	1460	1405	700	1200	1340	32×35	770
1400	0.6	1400	1823	1524	815	1400	1560	36×36	1230
1600	0.6	1600	2033	1726	915	1600	1760	40×36	1550
1800	0.6	1800	2227	1926	1023	1800	1970	44×39	2080
2000	0.6	2000	2428	2170	1123	2000	2180	48×42	2600

**Note** Size "e" is suitable for diameter over DN250. Stainless steel flange is available to the diameter of flange below DN250. The model of stainless steel case is 1Cr18Ni9Ti

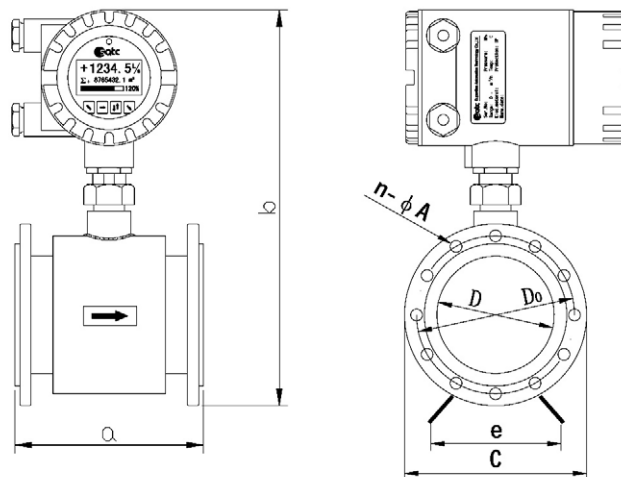


### Outline Dimension & Weight

#### Integrated From

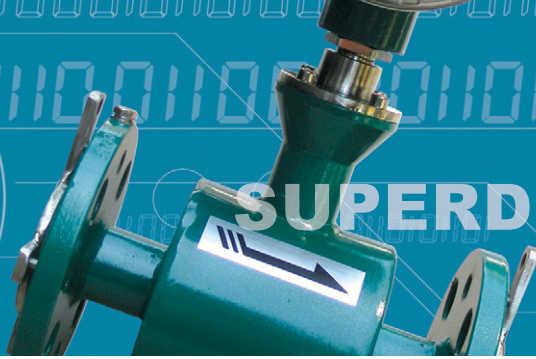
Diameter (mm)	Specified pressure (MPa)	Outline Dimension of flowmeter				Dimension of Flange			Weight (kg)
		a	b	c	e	D	D°	n×A	
10	4.0	200	320	90		10	60	4×14	6
15	4.0	200	322	95		15	65	4×14	6
20	4.0	200	327	105		20	75	4×14	6
25	4.0	205	337	115		25	85	4×14	7
32	4.0	205	350	140		32	100	4×18	9
40	4.0	205	354	150		40	110	4×18	10
50	4.0	205	376	165		50	125	4×18	12
65	1.6	205	386	185		65	145	4×18	17
80	1.6	205	411	200		80	160	8×18	17
100	1.6	255	431	200		100	180	8×18	22
125	1.6	255	455	250		125	210	8×18	24
150	1.6	306	491	285		150	240	8×22	35
200	1.0	357	550	340		200	295	8×22	45
250	1.0	450	580	395	310	250	350	12×23	84
300	1.0	500	643	445	310	300	400	12×23	102
350	1.0	550	704	505	450	350	460	16×23	123
400	1.0	600	764	565	450	400	515	16×26	147
450	1.0	620	814	615	450	450	565	20×26	212
500	1.0	720	860	670	450	500	620	20×26	209
600	1.0	812	968	780	610	600	725	20×30	252
700	1.0	910	1077	895	610	700	840	20×30	352
800	1.0	1060	1188	1243	1015	610	800	24×35	462

**Note** Size "e" is suitable for diameter over DN250. Integrated from is fit for small-medium sized diameter



# Magnetic Flowmeter

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## Specification

### Model Code Specification

**SA D -**

①      ②      ③

① Superdian Automation Technology Co.,LTD.

② Electromagnetic flowmeters

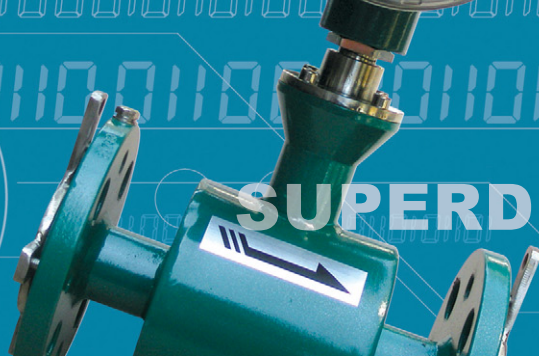
③ Diameter

**SAD -**

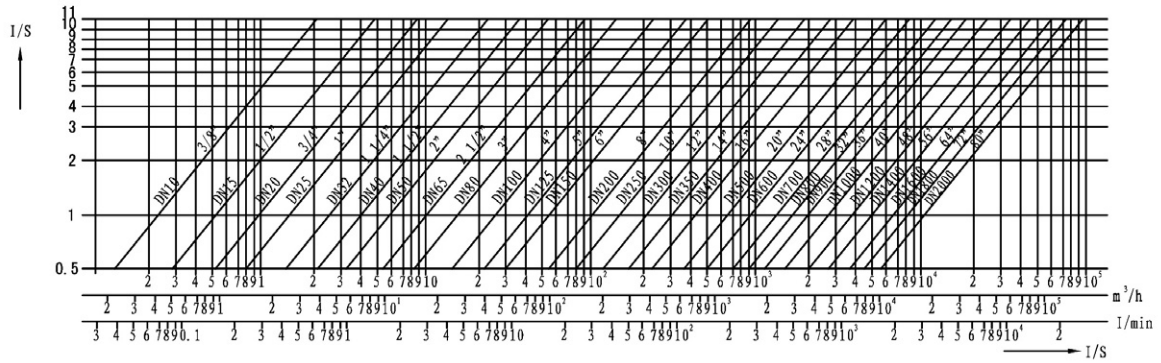
A Diameter of transducer	DN10~2000mm	G Sealing Grand	1. IP65 2. IP67 3. IP68
B Coordinated converter	g. SAZ-3 h. SAZ-3F i. Other	H Output signal	1. 4~20mA 2. Frequency 3. Pulse 4. Other
C Electrode material	1. 1Cr18Ni9Ti 2. 0Cr18Ni12Mo2Ti 3. Hc 4. Hb 5. Ti 6. Ta 7. Pt 8. Other	I Mounting	1. Connect version 2. Separate version
D Lining material	1. PTFE 2. Neoprene 3. Polyurethane rubber 4. Other	J Communication	1. No request 2. RS485 3. Other
E Operating Pressure	1. 4.0MPa (DN10~50) 2. 1.6MPa (DN65~150) 3. 1.0MPa (DN200~1000) 4. 0.6MPa (DN1200~2000)	K Explosion-proof	1. No request 2. Exdmib II BT5-T6 3. Exd(ia)II CT5
F Operating temperature	1. ≤80℃ 2. ≤120℃ 3. ≤150℃		

# Magnetic Flowmeter

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### Curve Diagram for the Relationship Among Caliber, Flow-velocity and Flowrate

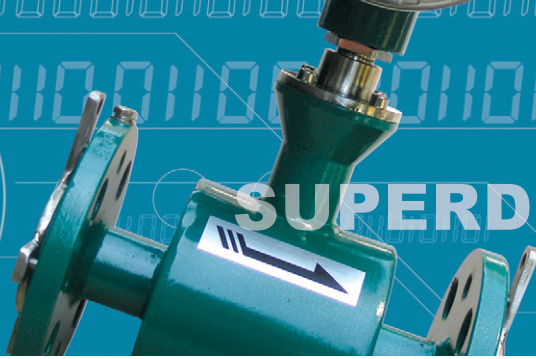


### Reference Chart for Selecting Max. Flowrate

Callber (mm)	Selection of max. flow-rate
10	0.16, 0.2, 0.25, 0.3, 0.4, 0.5, 0.6, 0.8, 1.0, 1.2, 1.6, 2.0, 2.5
15	0.4, 0.5, 0.6, 0.8, 1.0, 1.2, 1.6, 2.0, 2.5, 3.0, 4.0, 5.0, 6.0
20	0.6, 0.8, 1.0, 1.2, 1.6, 2.0, 2.5, 3.0, 4.0, 5.0, 6.0, 8.0, 10.0, 12.0
25	1.0, 1.2, 1.6, 2.0, 2.5, 3.0, 4.0, 5.0, 6.0, 8.0, 10.0, 12.16
32	1.6, 2.0, 2.5, 3.0, 4.0, 5.0, 6.0, 8.0, 10.0, 12, 16, 20, 25
40	2.5, 3.0, 4.0, 5.0, 6.0, 8.0, 10.0, 12, 16, 20, 25, 30, 40
50	4.0, 5.0, 6.0, 8.0, 10.0, 12, 16, 20, 25, 30, 40, 50, 60
65	6.0, 8.0, 10.0, 12, 16, 20, 25, 30, 40, 50, 60, 80, 100, 120
80	10, 12, 16, 20, 25, 30, 40, 50, 60, 80, 100, 120, 160
100	16, 20, 25, 30, 40, 50, 60, 80, 100, 120, 160, 200, 250
125	25, 30, 40, 50, 60, 80, 100, 120, 160, 200, 250, 300, 400
150	40, 50, 60, 80, 80, 120, 160, 200, 250, 300, 400, 500, 600
200	60, 80, 100, 120, 160, 300, 250, 300, 400, 500, 600, 800, 1000
250	100, 120, 160, 200, 250, 300, 400, 500, 600, 800, 1000, 1200, 1600
300	160, 200, 250, 300, 400, 500, 600, 800, 1000, 1200, 1600, 2000, 2500
350	200, 250, 300, 400, 500, 600, 800, 1000, 1200, 1600, 2000, 2500, 3000
400	250, 300, 400, 500, 600, 800, 1000, 1200, 1600, 2000, 2500, 3000, 4000
500	400, 500, 600, 800, 1000, 1200, 1600, 2000, 2500, 3000, 4000, 5000, 6000
600	600, 800, 1000, 1200, 1600, 2000, 2500, 3000, 4000, 5000, 6000, 8000, 10000
700	800, 1000, 1200, 1600, 2000, 2500, 3000, 4000, 5000, 6000, 8000, 10000, 12000
800	1000, 1200, 1600, 2000, 2500, 3000, 4000, 5000, 6000, 8000, 10000, 12000, 16000
900	1200, 1600, 2000, 2500, 3000, 4000, 5000, 6000, 8000, 10000, 12000, 16000, 20000
1000	1600, 2000, 2500, 3000, 4000, 5000, 6000, 8000, 10000, 12000, 16000, 20000, 25000
1200	2500, 3000, 4000, 5000, 6000, 8000, 10000, 12000, 16000, 20000, 25000, 30000
1400	3000, 4000, 5000, 6000, 8000, 10000, 12000, 16000, 20000, 35000, 30000, 40000, 50000
1600	4000, 5000, 6000, 8000, 10000, 12000, 16000, 20000, 25000, 30000, 40000, 50000, 60000
1800	5000, 6000, 8000, 10000, 12000, 16000, 20000, 25000, 30000, 40000, 50000, 60000
2000	6000, 8000, 10000, 12000, 16000, 20000, 25000, 30000, 40000, 50000, 60000, 80000, 100000

# Magnetic Flowmeter

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### Corrosion-resistance of electrode materials (For reference only. For details, see the appendix)

Electrode material	Corrosion Resistance
Acid-proof steel (1Cr18Ni9Ti) Stainless Steel With Molybdenum (0Cr18Ni12Mo2Ti)	It is stronger corrosion resistance for nitric acid, <5% sulphuric acid, boiling, phosphoric acid, formic acid, alkaline solutions, sulphurous acid, salt solution and acetic acid under certain pressure and is widely used in field of petro-chemistry, urea and vinylon. For salt solution, sea water, acid & weak alkaline.
Hastelloy C	Corrosion-resisting for oxyacid: such as nitric acid, mixed acids and mixed liquid with chromic & sulphuric acid for oxy-salts of Fe <sup>+++</sup> , Cu <sup>+++</sup> and other oxygenannts, such as hypochlorite solution over atmospheric temperature and oil-water mixed solution.
Titanium	Corrosion-resisting for oil-water solution, various chlorides & Sub-chlorates, oxyacids(include fuming nitric acid), organic acid & alkaline. Not corrosion-resisting for purer reducibility acid(such as: sulphuric acid, hydrochloric acid). If its containing oxygenants, acid's corrosion is lower strongly.
Tantalum	Has good corrosion-resisting and being similar to glass. Almost corrosion-resisting for all chemical medias, except hydrofluoric acid, fluming sulphuric acid and alkaline.
Platinum	Corrosion-resisting for all chemical medias.

### The property and purpose of general lining material

Lining material	Mail property	Purpose
PTFE	1. It is a most stable chemical material in Plastic & corrosion-resising & against boiling hydrochloric acid, nitric acid, aquaregia, strong alkaline & each organic solvent. 2. Poor wearability & adhesiveness	1. 40°C~180°C 2. For acids & Alkaline 3. Sanitary media
Neoprene	1. Having excellent elasticity & stronger tearing force, good tear-proof. 2. Corrsion-resisting for general and lower density acids, alkalls & salt solutions. No corrsion-resisting for oxygenic medias.	1. <80°C 2. normal water, Wast water, mud & orepulp
Polyurethane	1. Having excellent wearability(is about ten times as strong as natureal rubber) 2. Poor corrosion-resisting for acid & alkali.	1. <65°C 2. Medium-strong, wear-tear orepukp coal liquid, sturry



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