

Technical Specification

Gflow+ IF600

Electromagnetic flowmeter



Application

- Robust design for water or general waste water industry
- Direct replacement of mechanical water meter
- Control interface friendly

Features

- High accuracy - thanks to our high SNR flow sensor and measurement circuitry
- Transmitter housing made of casted aluminum
- Supporting multiple communication protocols as HART, Modbus RS-485
- Optimized for low flow measurement, rated accuracy holds to 0.01m/s flow speed

Flow measurement

Measured variable	Volume flowrate by flow speed
Measuring range	0.01~10 m/s
Measuring performance	0.5% o.R. 0.2%/0.3% o.R. upon request for special calibration

Output

Output signal	Analog Active 4~20mA output Pulse output Active Frequency output 0~1kHz, 50% duty cycle
Communication	Modbus RS-485 Optional: HART

Power supply

Supply voltage	85~265 VAC or 24VDC
Power consumption	10W

Process

Temperature	L: -35~0°C E: 0~60°C H: 60~180°C
Pressure rating	DN10~DN80 40bar (4.0Mpa) DN100~DN150 16bar (1.6Mpa or 230psi) DN200~DN1000 10bar (1.0Mpa) DN1100~DN2000 6bar (0.6MPa) DN 2200~DN3000 2.5bar(0.25MPa) High pressure rating as per request
Min. Conductivity	10μS/cm
Connection	ANSI B16.5 #150, #300, #600, #900 DIN PN10, PN16, PN25, PN40 JIS 10K, 20K, 40K BS4054 PN6, PN10, PN16, PN25, PN40 Other flange as per request

Materials

Sensor material	Electrodes Standard: 316L Stainless Steel Optional: Platinum Hastelloy B alloy Tantalum Titanium Hastelloy C alloy Tungsten carbonized
------------------------	--

Liner

Standard: Chloroprene Rubber

Optional: Nature Rubber

Perfluoroalkoxy (PFA)

Poly Urethane

Ploytetrafluoroethylene (PTFE)

Fluorinated ethylene propylene (FEP)

Flow tube

Carbon Steel

Stainless Steel

Sensor body

Carbon Steel

Stainless steel

Electronics Housing

Casted aluminum, powder coated

Sealing O-Rings

EPDM

Environment

Ambient temperature**Operation temperature**

-10~60°C

Storage temperature

-20~60°C

CE Marking

IEC61000-4-2, 6kV direct discharge, 8kV discharge

IEC 61000-4-3, 80MHz~1000MHz: 10V/m, 1000MHz ~ 2700MHz: 3V/m

IEC 61000-4-4, 1kV on cable

IEC 61000-4-5, 1kV on cable, 1,2/50s wave

IEC 61000-4-6, 0.15~80MHz 3V

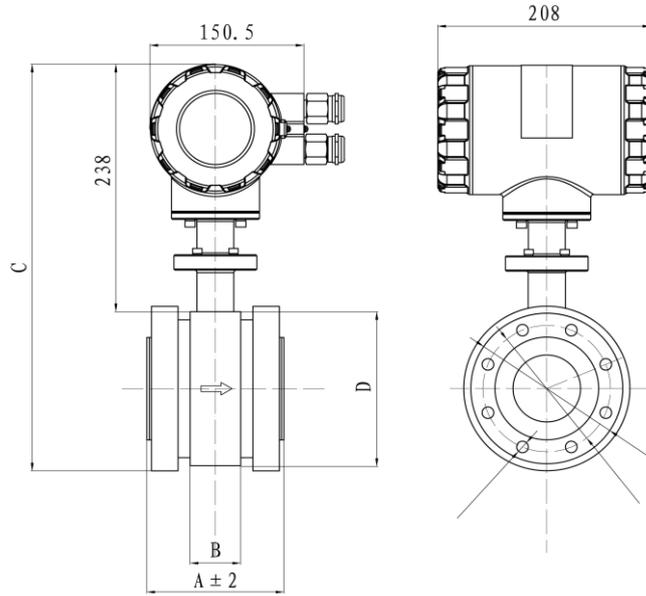
IEC 61000-4-8, 10A/m

Housing Protection Level

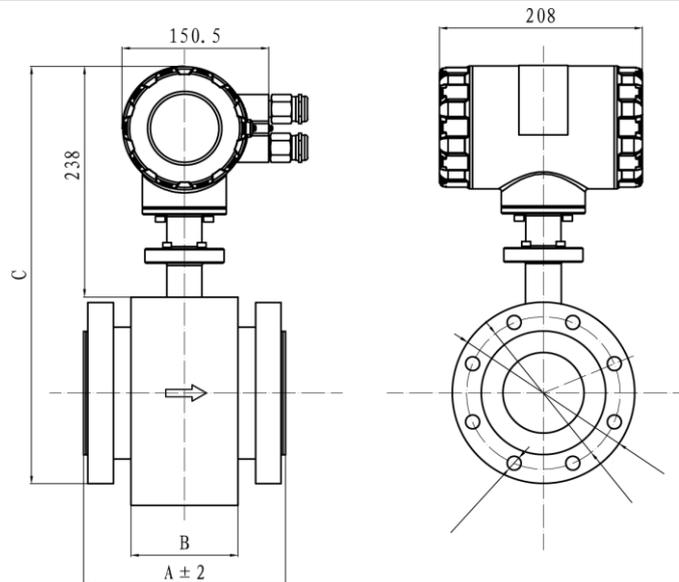
IP67, IP68 (remote version)

Installation dimension

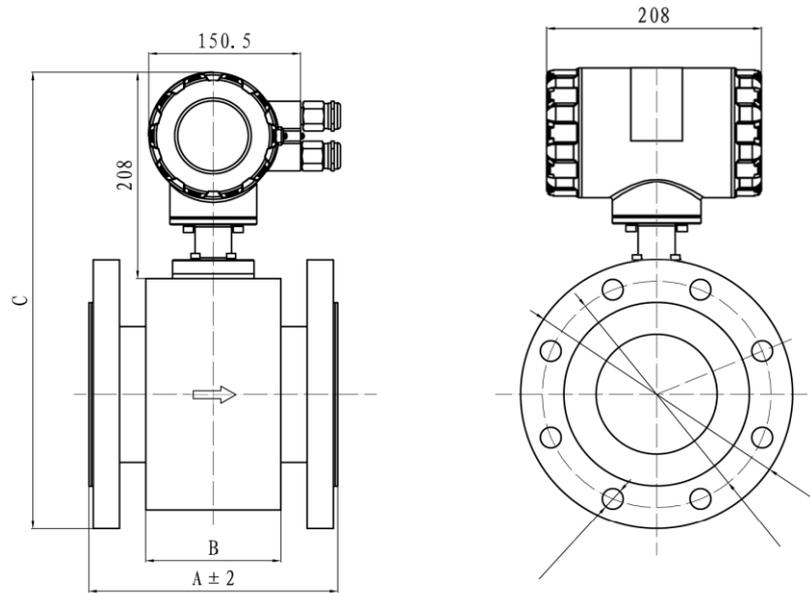
Integrate type



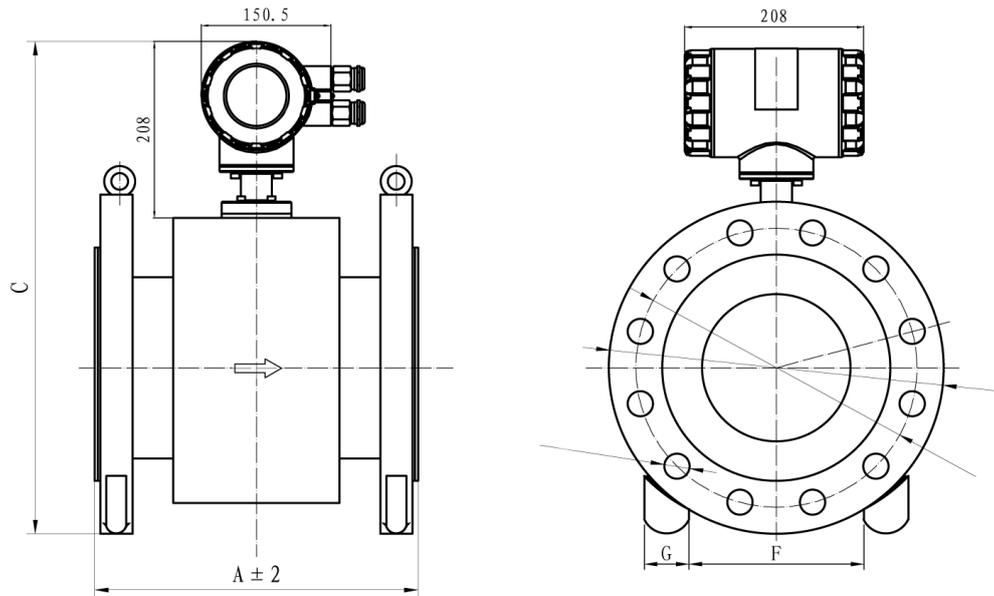
DN	Inch	B	D1	A±2	C
10	3/8	68	110	150	349
15	1/2				
20	3/4				



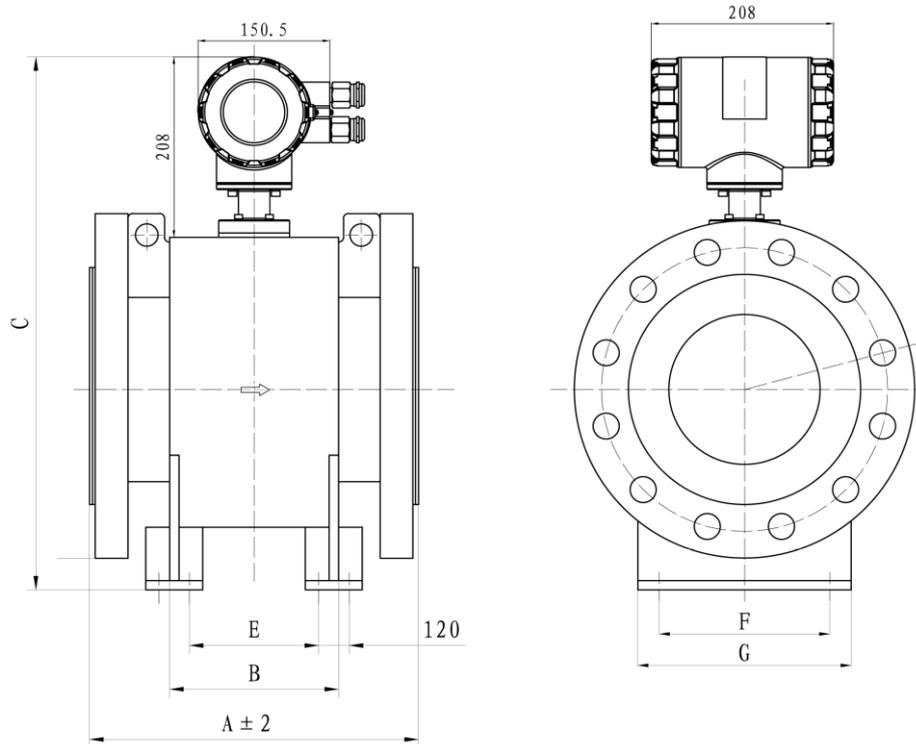
DN	Inch	B(mm)	A±2(mm)	C(mm)
25	1	66	150	352
32	1 1/4			369
40	1 1/2			379
50	2	102	200	397
65	2 1/2			416



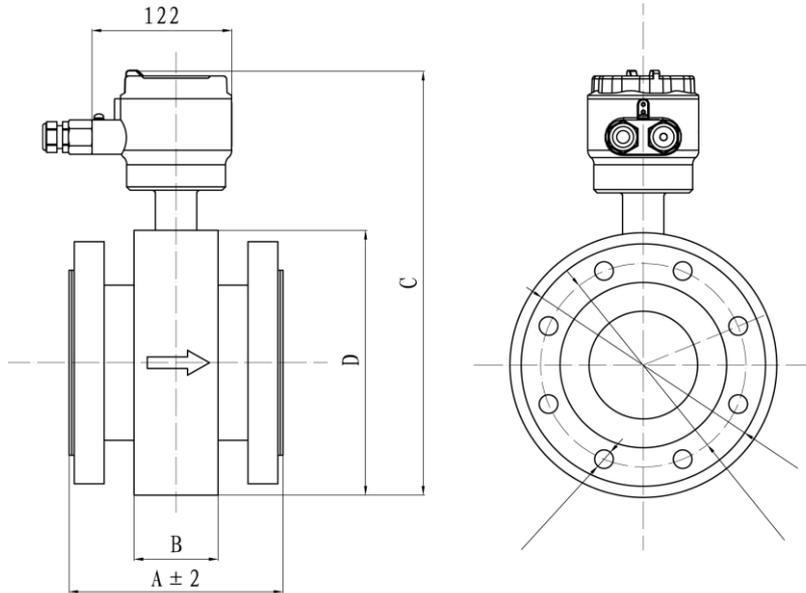
DN	Inch	B(mm)	A±2(mm)	C(mm)
80	3	102	200	398
100	4	122	250	419
125	5	138	250	446
150	6	176	300	480
200	8	202	350	528
250	10	222	400	585
300	12	312	500	638
350	14	312	500	694
400	16	392	600	749
450	18	402	600	805



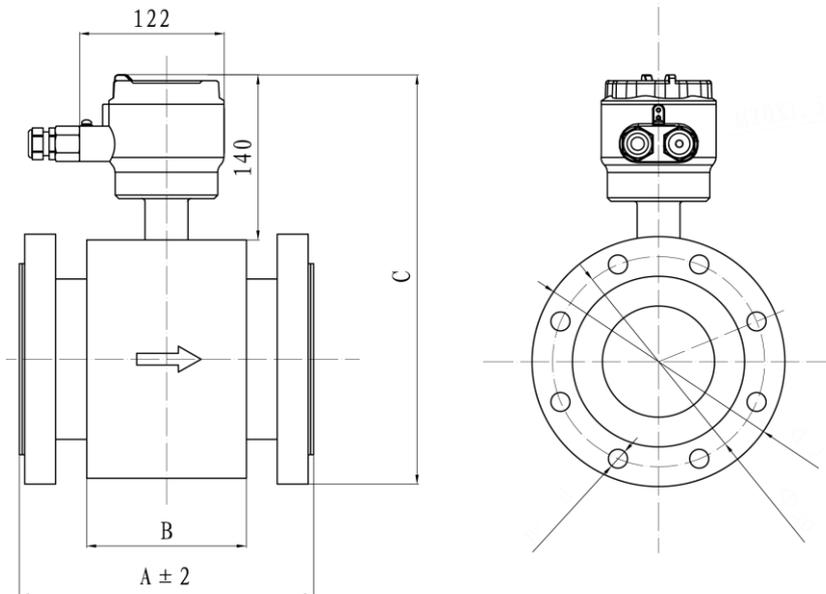
DN	Inch	A±2(mm)	C(mm)	F(mm)	G(mm)
500	20	600	922	367.8	120
600	24	600	1027	399.4	
700	28	700	1142	436.0	
800	32	800	1239	466.2	150
900	36	900	1349	549.5	
1000	40	1000	1437	579.0	
1100	44	1100	1541	592.6	
1200	48	1200	1647	621.2	
1400	56	1400	1860	539.9	
1500	60	1500	1961	555.8	
1600	64	1600	2060	572.9	



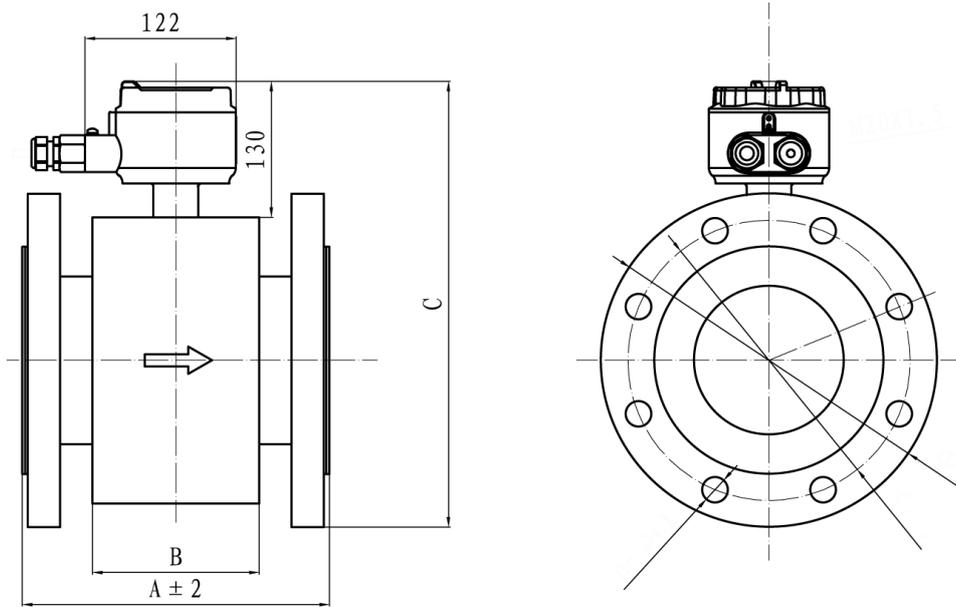
DN	Inch	A±2(mm)	B(mm)	C(mm)	E(mm)	F(mm)	G(mm)
1800	72	1800	1340	2331	1224	800	900
2000	80	2000	1510	2547	1382	1100	1200
2200	88	2200	1720	2757	1592		
2400	96	2400	1872	2977	1742	1300	1400
2600	104	2600	2022	3183	1892		
2800	114	2800	2172	3387	2042	1500	1600
3000	120	3000	2362	3593	2232		

Remote type


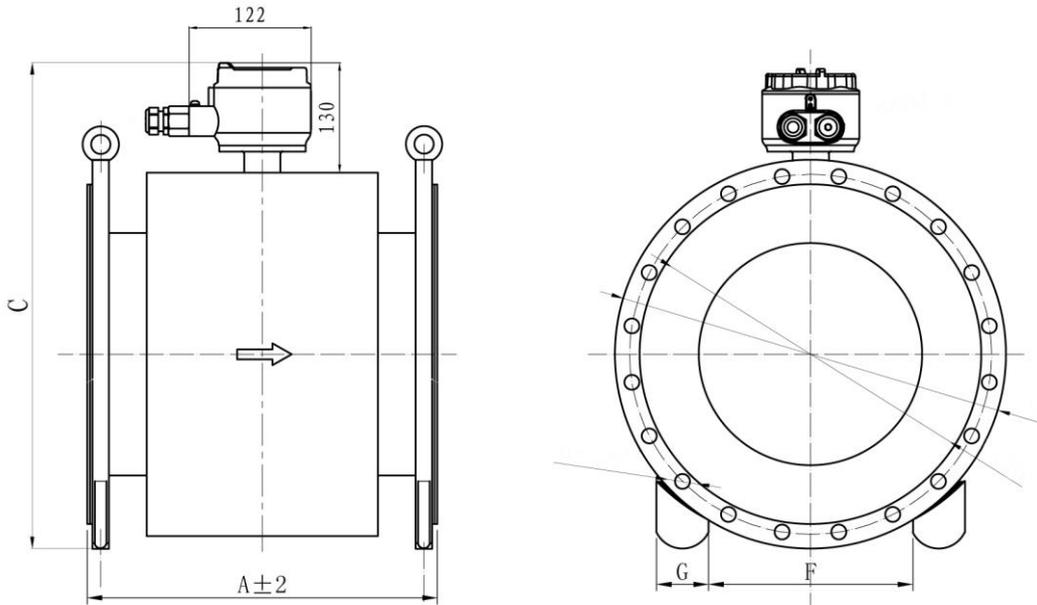
DN	Inch	B(mm)	A±2(mm)	C(mm)
10	3/8	68	150	250
15	1/2			
20	3/4			
25	1	66	150	254
32	1 1/4			271
40	1 1/2			281



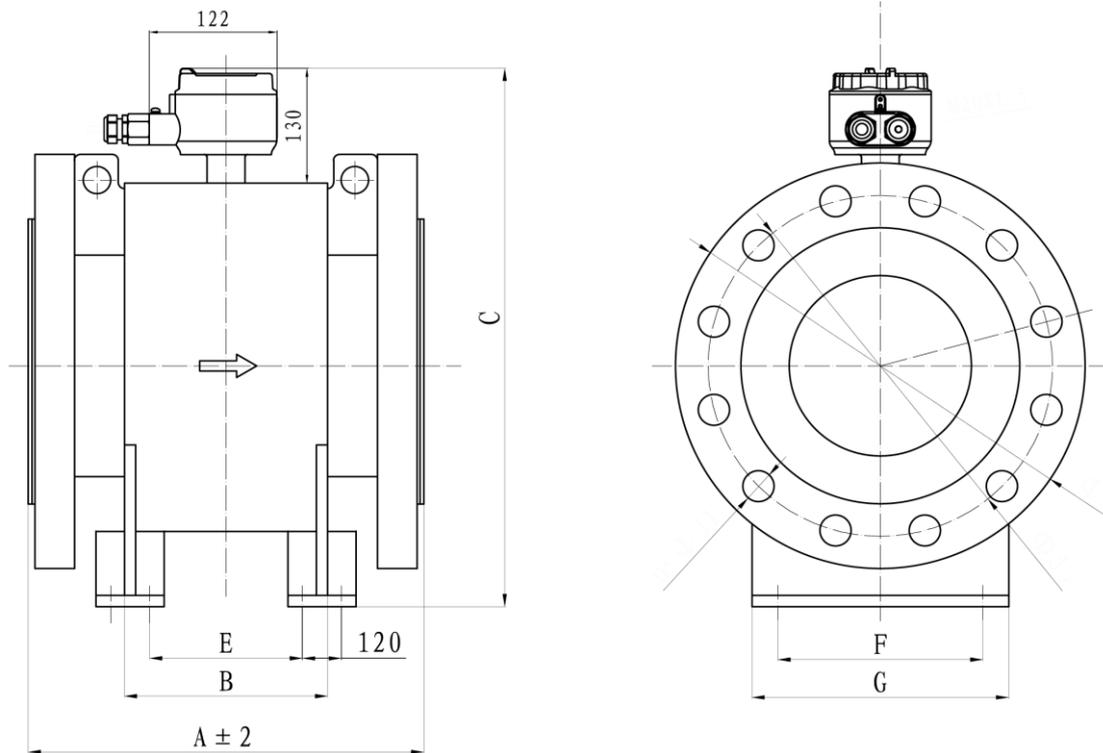
DN	Inch	B(mm)	A±2(mm)	C(mm)
50	2	102	200	299
65	2 1/2			318



DN	Inch	B(mm)	A±2(mm)	C(mm)
80	3	102	200	320
100	4	122	250	341
125	5	138	250	368
150	6	176	300	402
200	8	202	350	453
250	10	222	400	505
300	12	312	500	560
350	14	312	500	610
400	16	392	600	674
450	18	402	600	724



DN	Inch	A±2(mm)	C(mm)	F(mm)	G(mm)
500	20	600	844	367.8	120
600	24	600	949	399.4	
700	28	700	1064	436.0	
800	32	800	1161	466.2	150
900	36	900	1271	549.5	
1000	40	1000	1359	579.0	
1100	44	1100	1463	592.6	
1200	48	1200	1569	621.2	
1400	56	1400	1782	539.9	
1500	60	1500	1883	555.8	
1600	64	1600	1982	572.9	



DN	Inch	A±2(mm)	B(mm)	C(mm)	E(mm)	F(mm)	G(mm)
1800	72	1800	1340	2253	1224	800	900
2000	80	2000	1510	2469	1382	1100	1200
2200	88	2200	1720	2679	1592		
2400	96	2400	1872	2899	1742	1300	1400
2600	104	2600	2022	3105	1892		
2800	114	2800	2172	3309	2042	1500	1600
3000	120	3000	2362	3515	2232		

Flow rate range

ID (mm)	Qmin (m3/h)	Qmax (m3/h)
10	0.085	3.390
15	0.191	7.630
20	0.339	13.56
25	0.530	21.20
32	0.868	34.73
40	1.357	54.26
50	2.120	84.78
65	3.582	143.28
80	5.426	217.04
100	8.478	339.12
125	13.25	529.88
150	19.08	763.02
200	33.91	1356.48
250	52.99	2119.50
300	76.30	3052.08
350	103.86	4154.22
400	135.65	5425.95
450	171.68	6867.18
500	211.95	8478.00
550	256.46	10258.38
600	305.21	12208.22
700	415.42	16616.88
800	542.59	21703.68
900	686.72	27468.82
1000	847.80	33912.00
1100	1025.84	41033.52
1200	1220.83	48833.28
1400	1661.69	66467.52
1600	2170.37	86814.72
1800	2746.87	109874.88
2000	3391.20	135648.00
2200	4103.35	164134.08
2400	4883.32	195333.12
2600	5731.12	229245.12
2800	6646.75	265870.08
3000	7630.20	305208.00

IF600	-	AAA	-BB	C	-DD	E	F	-GHIJ	-KK	LM
-------	---	-----	-----	---	-----	---	---	-------	-----	----

Model

IF600-

AAA	Size	
308	DN10	3/8"
102	DN15	1/2"
304	DN20	3/4"
001	DN25	1"
114	DN32	1 1/4"
112	DN40	1 1/2"
002	DN50	2"
212	DN65	2 1/2"
003	DN80	3"
...
120	DN3000	120"
xxx	Special size	

BB	Electrodes material
10	316L stainless steel
11	Platinum
12	Hastelloy B alloy
13	Tantalum
14	Titanium
15	Hastelloy C alloy
16	Tungsten carbonized

C	Liner material
2	PFA
3	Chloroprene Rubber
4	Poly Urethane
5	PTFE
6	FEP
7	Nature Rubber

DD	Process connection
A1	ANSI 150# flange
A2	ANSI 300# flange
A3	ANSI 600# flange
A4	ANSI 900# flange
D1	DIN PN10 flange
D2	DIN PN16 flange
D3	DIN PN25 flange
D4	DIN PN40 flange
J1	JIS 10K flange
J2	JIS 20K flange
J3	JIS 40K flange
B1	BS4054 PN6 flange

IF600	-	AAA	-BB	C	-DD	E	F	-GHIJ	-KK	LM
-------	---	-----	-----	---	-----	---	---	-------	-----	----

B2	BS4054 PN10 flange
B3	BS4054 PN16 flange
B4	BS4054 PN25 flange
B5	BS4054 PN40 flange
O	Special order

E	Process temperature
L	Low temperature (-35~0°C)
E	Normal temperature (0~60°C)
H	High temperature (60~180°C)

F	Calibration Accuracy
2	0.002
3	0.003
5	0.005

G	Grounding rings
0	None
1	Have

H	Protection
0	IP67
1	IP68

I	Transmitter type
0	Compact
1	Remote

J	Communication
1	RS-485
2	HART

KK	Sensor housing and flange
00	Carbon steel
01	316L Stainless steel
11	304 Stainless steel

L	Companion Flange
0	None
1	Have

M	Power Supply
0	85-265 V AC
1	24V DC