

## Specific&features

- High accuracy and repeatability, accuracy up to 0.2%
- Minimum media conductivity is 1 $\mu$ S/cm
- Minimum flow speed is 1L/h
- Range ratio up to 100:1

## Applications

- Food and beverage
- Pharmaceutical machine
- Beverage filling machine
- Water treatment



## Specifications

### Measurement specifications

Principle	Electromagnetic
Media range	Liquids ( $\sigma > 1\mu\text{S/cm}$ )
Measurement value	Flow speed
Output value	Rate of flow
Accuracy	0.5% ,0.3% or 0.2%
Repeatability	0.16% ,0.1% or 0.06%

### Wetted parts

Material	
Body:	Carbon steel with painting
Electrode pole:	316LSS,HaC,Titanium,Tantalum,tungsten carbide, Pt
Liner:	PTFE,FEP,PFA,CR,FVMQ or PU

### Environment specifications

Environment temperature	-20 ... 85 °C
Media temperature	-40 ... 180°C
Storage temperature	-40 ... 70 °C
Ingress protection (EN 60529)	IP67 or IP68
Environment humidity	< 98 % RH, without condensation

### Output specifications

Output signal	4-20mA,4-20mA with HART,RS485 or pulse
Power supply	24VDC or 220VAC

### Electrical connection

Connection type	Cable gland
-----------------	-------------

### Electrical protection

Reverse polarity	Yes
Short circuit	Yes

### Process connection

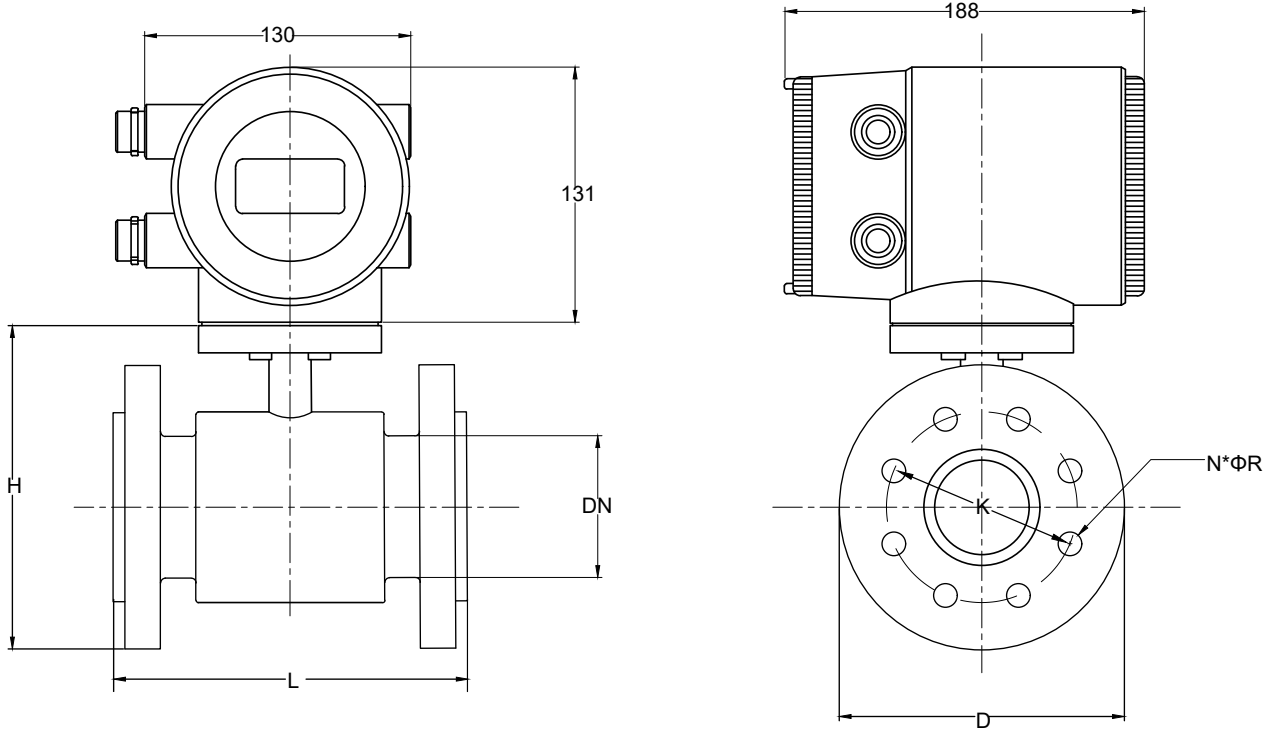
Flange standard	HG/T 20592 or HG/T 20615
Pipe size	DN3 to DN2000
Mounting type	Flange or Sandwich

Table 1: Flow range

DN	Full scale m <sup>3</sup> /h														
10a	0.03	0.05	0.06	0.08	0.1	0.12	0.16	0.2	0.3	0.4	0.5	0.6	0.7	0.8	1.0
10	0.1	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	2.8
15	0.2	0.4	0.5	0.6	0.8	1	1.2	1.6	2	2.5	3	4	5	6	6.3
25	0.6	1	1.2	1.6	2	2.5	3	4	5	6	8	10	12	16	17.7
32	0.9	1.6	2	2.5	3	4	5	6	8	10	12	16	20	25	28
40	1.4	2.5	3	4	5	6	8	10	12	16	20	25	30	40	45
50	2.1	4	5	6	8	10	12	16	20	25	30	40	50	60	70
65	4	6	8	10	12	16	20	25	30	40	50	60	80	100	120
80	6	10	12	16	20	25	30	40	50	60	80	100	120	160	180
100	8	16	20	25	30	40	50	60	80	100	120	160	200	250	280
125	13	25	30	40	50	60	80	100	120	160	200	250	300	400	440
150	19	40	50	60	80	100	120	160	200	250	300	400	500	600	630
200	34	60	80	100	120	160	200	250	300	400	500	600	800	1000	1100
250	53	100	120	160	200	250	300	400	500	600	800	1000	1200	1400	1600
300	76	160	200	250	300	400	500	600	800	1000	1200	1600	1800	2000	2500
350	100	200	250	300	400	500	600	800	1000	1200	1600	2000	2200	2500	3000
400	140	250	300	400	500	600	800	1000	1200	1600	2000	2500	2600	3000	4000
450	170	300	400	500	600	800	1000	1200	1600	2000	2500	3000	3600	4000	5000
500	210	400	500	600	800	1000	1200	1600	2000	2500	3000	3600	4000	5000	7000
600	310	500	600	800	1000	1200	1600	2000	2500	3000	3600	4000	5000	6000	10000
700	420	700	800	1000	1200	1600	2000	2500	3000	3600	4000	5000	6000	8000	13000
800	540	800	1000	1200	1600	2000	2500	3000	4000	5000	6000	7000	8000	10000	18000
900	690	1000	1200	1600	2000	2500	3000	4000	5000	6000	7000	8000	10000	12000	20000
1000	850	1200	1600	2000	2500	3000	4000	5000	6000	7000	8000	10000	12000	16000	28000
1200	1220	2000	2500	3000	4000	5000	6000	8000	9000	10000	12000	16000	20000	26000	40000
1400	1660	2500	3000	4000	5000	6000	8000	10000	12000	16000	20000	25000	26000	30000	54000
1600	2160	3000	4000	5000	6000	8000	10000	12000	16000	20000	25000	30000	36000	40000	71000
1800	2740	5000	6000	7000	8000	10000	12000	16000	20000	25000	30000	36000	40000	45000	90000
2000	3380	6000	7000	8000	10000	12000	16000	20000	25000	30000	36000	40000	45000	50000	11*10 <sup>4</sup>

Notes: Suggested flow ratio is between 50%-80% of full scale

## Flange type with LC display

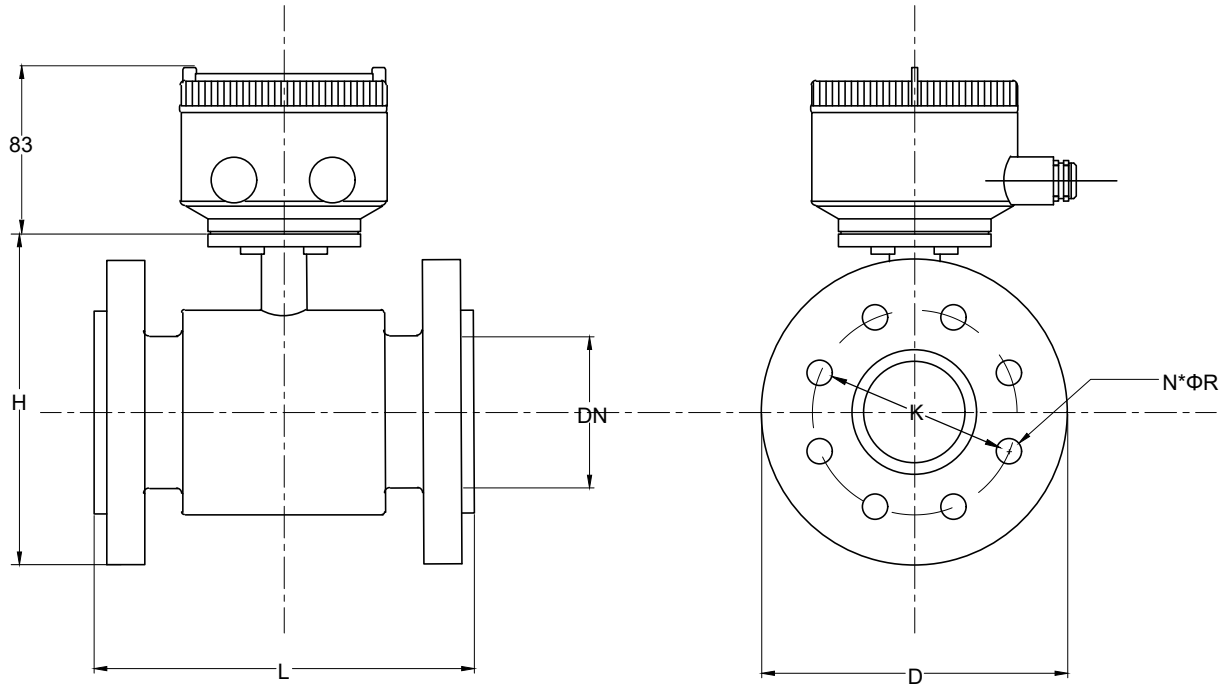


Unit:mm

DN	10a	10	15	20	25	32	40	50	65	80	100	125	150	200	250
PN (bar)	40										16			10	10
L	120		150					200			250		300	350	400
D	95	95	105	115	140	150	165	185	200	220	250	285	340	395	
H	142	142	147	152	172	177	205	216	228	258	284	315	366	420	
K	60	65	75	85	100	110	125	145	160	180	210	240	295	350	
N*R	4*14				4*18				8*18				8*22	8*22	12*22

DN	300	350	400	450	500	600	700	800	900	1000	1200	1400	1600	1800	2000
PN (bar)	10										6				
L	450		500	600			700	800	900	1000	1200	1400	1600	1800	2000
D	445	505	565	615	670	780	895	1015	1115	1230	1405	1630	1830	2045	2265
H	470	525	580	629	682	791	890	1007	1118	1228	1416	1630	1830	2045	2265
K	400	460	515	565	620	725	840	950	1050	1160	1380	1590	1820	2020	2230
N*R	12*22	16*22	16*26	20*26		20*30	24*30	24*33	28*33	28*36	32*33	36*36	40*36	44*39	48*42

## Flange type with junction box

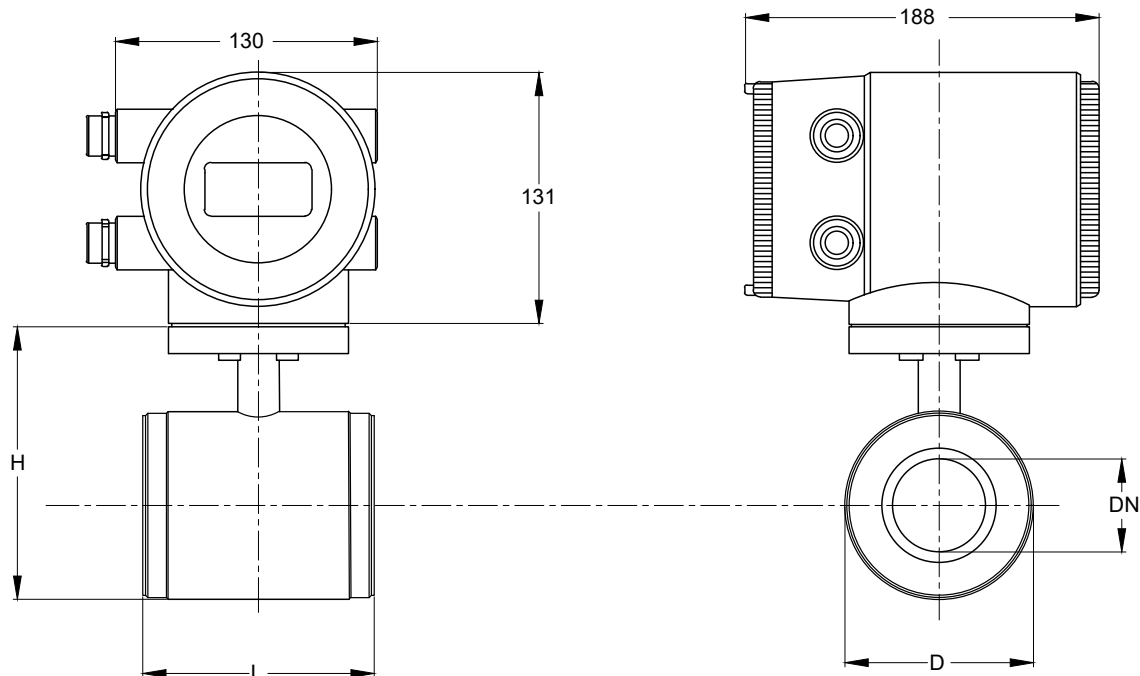


Unit:mm

DN	10a	10	15	20	25	32	40	50	65	80	100	125	150	200	250
PN (bar)	40										16			10	10
L	120	150				200				250		300	350	400	
D	95	95	105	115	140	150	165	185	200	220	250	285	340	395	
H	142	142	147	152	172	177	205	216	228	258	284	315	366	420	
K	60	65	75	85	100	110	125	145	160	180	210	240	295	350	
N*R	4*14				4*18				8*18				8*22	8*22	12*22

DN	300	350	400	450	500	600	700	800	900	1000	1200	1400	1600	1800	2000
PN (bar)	10										6				
L	450		500	600			700	800	900	1000	1200	1400	1600	1800	2000
D	445	505	565	615	670	780	895	1015	1115	1230	1405	1630	1830	2045	2265
H	470	525	580	629	682	791	890	1007	1118	1228	1416	1630	1830	2045	2265
K	400	460	515	565	620	725	840	950	1050	1160	1380	1590	1820	2020	2230
N*R	12*22	16*22	16*26	20*26		20*30	24*30	24*33	28*33	28*36	32*33	36*36	40*36	44*39	48*42

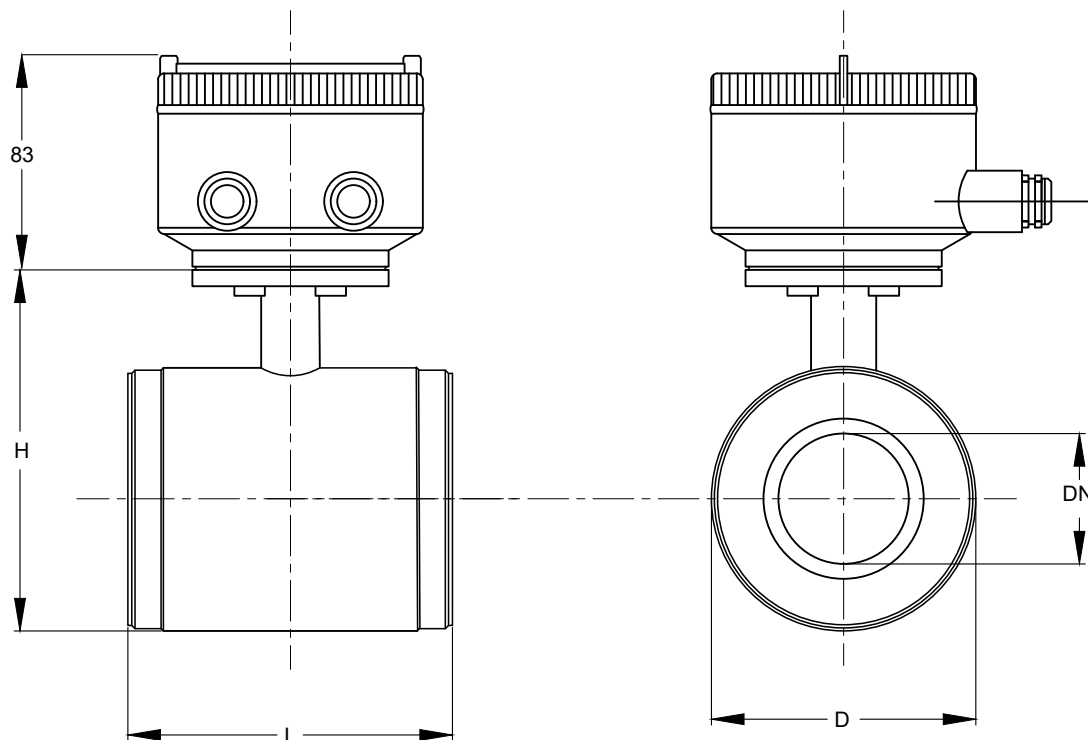
## Sandwich type with LC display



Unit: mm

DN	25	32	40	50	65	80	100	125	150	200	250	300
D	67	76	82	96	116	127	147	177	202	257	320	372
L	90	100	100	115	115	130	155	155	185	215	250	290
H	116	125	131	145	165	176	196	226	251	306	369	421

Sandwich type with junction box



Unit:mm

DN	25	32	40	50	65	80	100	125	150	200	250	300
D	67	76	82	96	116	127	147	177	202	257	320	372
L	90	100	100	115	115	130	155	155	185	215	250	290
H	116	125	131	145	165	176	196	226	251	306	369	421

## FMG5 ordering code

	Code	Specifications
1.	FMG5	Series
2.		Output signal
	1	4-20mA
	2	4-20mA with HART
	3	4-20mA+pulse+RS485
	3	4-20mA+pulse+HART
3.		Accuracy
	1	0.5
	2	0.3
	3	0.2
4.		Power supply
	1	24VDC
	2	220VAC
5.		Construction type
	0	One-piece
	1	Remote
3.		Mounting type
	1	Flange
	2	Sandwich
	3	Insertion
6.		Cable length
	00	Without (one-piece)
	05	Input cable length, unit in m
7.		Flange standard
	D	HG/T 20592 or EN1092-1
	S	HG/T 20615 or ASME B16.5
	X	On request
8.		Liner material
	1	PTFE
	2	PFA
	3	FEP
	4	CR
	5	FVMQ
	6	PU
9.		Electrode pole
	1	316LSS
	2	HaC
	3	Titanium
	4	Tantalum
	5	tungsten carbide
	6	Pt
10.		Grounding pole
	0	No
	1	Yes

### FMG5 Ordering code

		Code	Specifications
		Pipe size	
11.	<input type="text"/>	A	DN10a
		B	DN10
		C	DN15 or 1/2"
		D	DN20 or 3/4"
		E	DN20 or 1"
		F	DN32 or 1-1/4"
		G	DN40 or 1-1/2"
		H	DN50 or 2"
		J	DN65 or 2-1/2"
		K	DN80 or 3"
		L	DN100 or 4"
		M	DN125 or 5"
		N	DN150 or 6"
		O	DN200 or 8"
		P	DN250 or 10"
		Q	DN300 or 12"
		R	DN350 or 14"
		S	DN400 or 16"
		T	DN450 or 18"
		U	DN500 or 20"
		V	DN600 or 24"
		W	DN700
		X	DN800
		Y	DN900
		0	DN1000
1	DN1200		
2	DN1400		
3	DN1600		
4	DN1800		
5	DN2000		
		Pressure rating	
12.	<input type="text"/>	1	PN10
		2	PN16 or class150
		3	PN25 or class300
		4	PN40
		Display	
13.	<input type="text"/>	1	Without
		2	With LC display
		Scale range	
14.	<input type="text"/>	1	Please input range (refer table 1)