

# OUR PROFESSION IS YOUR FLOW

Designed for Food Industry

VARIABLE AREA FLOWMETER(Tir-clamp)



Food industry



Biopharmacy



Beijing Airport Beiguang Instruments Co.,Ltd

## Applied Industries

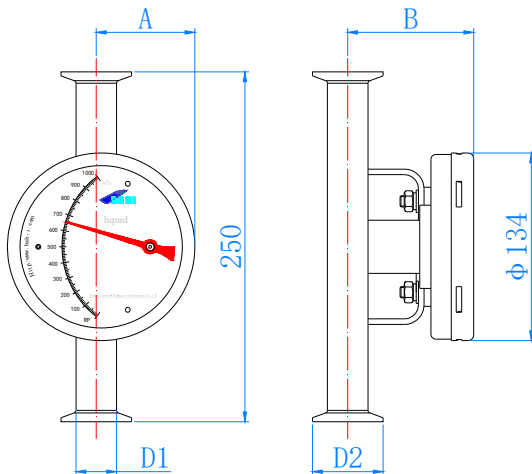
Flowmeters are widely used in food industry, pharmacy, and bioengineering to measure the flow and volume of media.

## Features

- ◆ Designed for food industry.
- ◆ Easy to disassemble, clean and maintain.
- ◆ Housing made of stainless steel, corrosion resistant.
- ◆ Indicator made of stainless steel by stamping forming, surface polished, beautiful and compact structure.
- ◆ Local display indicator and local display with transmitter indicator are optional to meet a variety of control requirements.
- ◆ Varieties of nominal diameter are available up to DIN3276 (1 SO2852, ASME and so on).
- ◆ Standard clamp connection.



## DIMENSIONS



	SIZE	D1	D2	A	B	C
DN	15	28.5	34.0	70.5	90	115
	20	36.5	34.0	74.5	94	119
	25	43.5	50.5	78	97.5	122.5
	32	43.5	50.5	78	97.5	122.5
	40	55.5	50.5	84	103.5	128.5
	50	66.5	64.0	89.5	109	134
	65	87.5	91.0	100	119.5	144.5
	80	100.5	106	106.5	126	151
	100	119.5	119	116	135.5	160.5

Note: C is the size of the in-place display + remote transmitter indication

- ◆ Clamp size (D2) can be produced according to user requirements, please specify when ordering.
- ◆ On measuring tube size (D1), if you have special requirements, please contact us for consultation and negotiations.

The measuring parts and indicating parts are all made of stainless steel. Different kinds of stainless steel are optional depending on working conditions and environments. When necessary, special processing is applicable to the parts that are used in hazardous conditions, ensuring that they can long endure the hazardous conditions. Electrolytic polishing process is applicable to the liquid surface and housing surface, and the surface roughness is  $Ra \leq 0.8\mu m$ , up to the standard of food industrial instrument.

## Indicator

### Local Indicator(P8)

The local indicator converts the measured signals in the measuring tube directly into the flow value through the magnetic coupling device and is indicated by the pointer and dial system.

- ◆ Made of stainless steel by stamping forming, surface polished;
- ◆ Easy to disassemble, clean and maintain, no dead space for cleaning.
- ◆ Local flow displayed by mechanical pointer, Compact and beautiful structure.



◆ **Transmitter with Local LCD Indicator(P8□/P10□)**

Transmitter with Local LCD Indicator is designed on the basis of PCB multifunction flow, the signal measured is converted to flow value by magnetic coupling. The value is both shown by the pointer on the scale plate and on LCD.

- ◆ Made of stainless steel stainless steel by stamping forming.
- ◆ Local instantaneous flow indicated by mechanical pointer.
- ◆ Instantaneous flow, accumulated flow and percentile flow indicated on LCD.
- ◆ Two wire system 4-20mA, Hart Protocol Digital communication.
- ◆ Parameter setting by full function key, HART communicator and PC.
- ◆ IS (intrinsically safe)/ Flameproof function.
- ◆ Electrical connection part connected by M12 plug-and-play aviation plug.



Food industrial instruments need removing and cleaning regularly. Disassembling the connected wires may damage the connecting terminals, lead to virtual connection and short connection. These may result in malfunction even breakdown of the instruments, badly shorten the service life. Meanwhile, it may cause customers losses to production and working. Therefore, ordinary plugs are not for sanitary instruments.

M12 plug-and-play aviation plug is a perfect solution. It is easy to disassemble and the connection performance will not reduce even frequently disassembled.



■ **Current output specification**

Power supply: (12 to 36) VDC

Rated voltage: 24VDC

Output signal: (4 to 20) mA/HART protocol remote signal.

**Order code**

F56/H/□/□/□/□

CODE	MATERIAL	CODE	INDICATOR TYPE	CODE	EXPLOSION-PROOF TYPE	CODE	MEDIA TYPE
S4	304	P8	Local type	Exi	Intrinsically safe	L	Liquid
S6	316	P10	Local + transmitter	Exd	Flameproof	G	Gas
		P8□	Local + transmitter(stainless steel housing)				

- ◆ Other materials are available on request; please contact us for consultation and negotiation.
- ◆ Flow limit alarm is optional for indicator, please note when ordering.
- ◆ High temperature type is available for medium temperature 120-200 °C, please note the medium temperature when ordering.

## Technical data

Type	F56 (Food Industrial Level)		
Fluid type	Liquid, gas, steam		
Flow range (Convert to standard medium, 100% values)	Water: 20°C	(10 to 100000) L/h, Special order according to user requirements	
	Air: 0.1013MPa, 20°C	(0.7 to 3000)Nm <sup>3</sup> /h, Special order according to user requirements	
Rangeability	10: 1		
Indication accuracy	Local type	Mechanical pointer indication	1.5, 2.5, 4.0(F.S. as standart)
		Digital display (battery powered, service life 1 years)	1.5, 2.5, 4.0(F.S. as standart)
	Transmitter: simultaneous pointer indication and digital display		1.5, 2.5, 4.0(F.S. as standart)
Fluid temperature	Local type	Mechanical pointer indication	-80°C to +200°C (PTFE:0 to 80°C)
		Digital display (battery powered, service life 1 years)	-40°C to +120°C (PTFE:0 to 80°C) High temperature type 200°C
	Transmitter: simultaneous pointer indication and digital display		-40°C to +120°C (PTFE:0 to 80°C) High temperature type 200°C
Ambient temperature	Local type	Mechanical pointer indication	-40°C to +120°C
		Digital display (battery powered, service life 1 years)	-20°C to +60°C
	Transmitter: simultaneous pointer indication and digital display		-20°C to +60°C
Fluid viscosity	DN15: 10 to 25(l/h) $\eta < 1$ mPa.s, $> 25$ (l/h) $\eta < 5$ mPa.s; DN25: $\eta < 20$ mPa.s; DN50 to 250: $\eta < 30$ mPa.s		
Fluid pressure	DN15~DN50	4.0MPa	
	DN80~DN250	1.6MPa	
Process connection	Sanitary clamp (standard: DIN32676; ISO2852); sanitary union(standard: DIN11851; SMS1145)		
Electrical connection	M12 electrical connector		
Installation(Flow direction)	Vertical flow direction (bottom→top, top→bottom); Horizontal flow direction (lift→right, right→lift)		
Installation conditions	Inlet section $\geq 5 \times DN$ , outlet section $\geq 3 \times DN$		
Protection category	IP65(Other orders need to be explained separately)		
Ex-mark	Ex ia II C T4 to T6 Ga		
	Ex d II C T6 Gb		
Intrinsically safe data	Ui=28V	Ii=93mA	Pi= 0.65W Ci $\leq$ 5nF Li =0mH
Safe gate data	Uo $\leq$ 28V	Io $\leq$ 93mA	Po $\leq$ 0.65W Co $\geq$ Ci+Cc Lo $\geq$ Li+Lc
Explosion proof certificate number	CE16.1206X		

Welcome your visit to Beijing Airport Beiguang Instrument Co., Ltd

*We believe that cleanness comes from designing, and we tailor customers' needs and produce measuring instruments which are used in food-related and cleanness-highly-demanding environments. In the process of designing and researching, we are invariably with a strict and diligent attitude, bringing our customers high quality products and services by professional technology and knowledge.*

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