# PITOT TUBE FLOW SENSORS

## NFB SERIES

The NEW-FLOW BAR is used for flow measurement of large pipe size.

Low permanent pressure loss for clean liquid or gas (vapor). There are many parallel holes that are located on upstream and downstream of this probe. When fluid through this probe generate high pressure in upstream and low pressure in downstream. The upstream read out average pressure is called total pressure(stagnation pressure). The downstream read out average pressure is called static pressure. This device insert into a flow pipe probe. Then detect out high/low pressure for  $\Delta P$  transmitter or  $\Delta P$  gauge to indicate the flow rate.

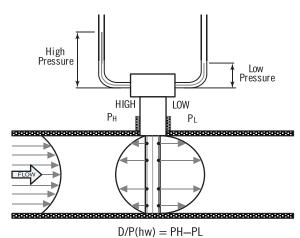
#### Technical Data

- **1.** NFB-Series is a flow element suitable for liquid steam and gases (vapor) flow measurement.
- **2.** Accuracy  $\pm 1\%$  of flow rate.
- 3. Repeatability of measurement  $\pm 0.1\%$ .
- 4. Flow rate turndown typically 10:1
- **5.** Max. temperature limit to 420°C, depended on model and material.
- **6.** Max. pressure limit to 1500 psi depended on model and material.
- 7. Low permanent pressure loss.
- 8. Bi-directional flow sensing.
- 9. Energy save.

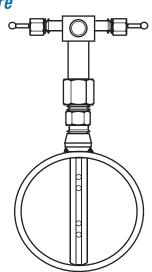




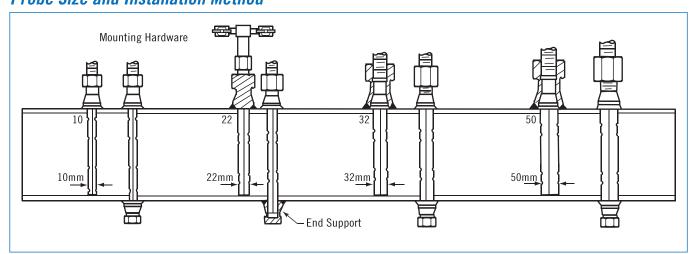
### **Principle A**



#### **Figure**



#### **Probe Size and Installation Method**

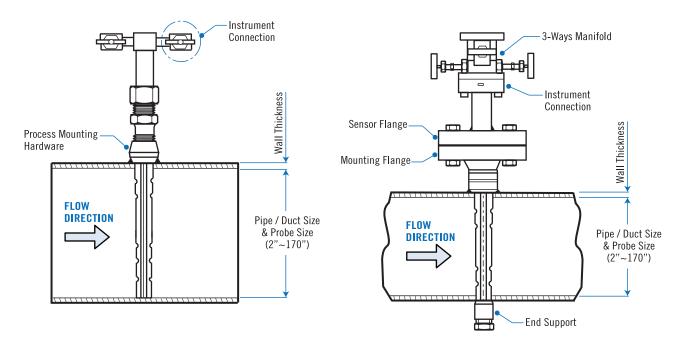


## Model Selection Guide

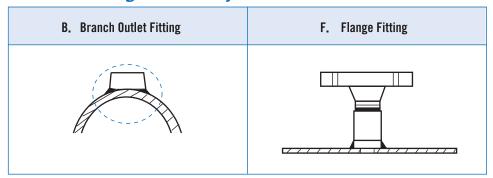
Model	NFB-100	NFB-150	NFB-200	NFB-300	NFB-400A	NFB-400B			
Picture									
	Standard version	Standard version	Standard version	Standard version	Standard version	Standard version			
Service Fluid	1. Liquid 2. Gas 3. Mixture Gases	1. Liquid 2. Gas 3. Mixture Gases	1. Liquid 2. Gas 3. Mixture Gases	1. Liquid 2. Gas 3. Mixture Gases	1. Liquid 2. Gas 3. Mixture Gases	1. Liquid 2. Gas 3. Mixture Gases			
Working Pressure Limit	100 Bar/ 1500 psig	100 Bar/ 56 Bar/ 1500 psig 800 psig		56 Bar/ 800 psig	56 Bar/ 800 psig	100 Bar/ 1500 psig			
Working Temperature Limit	250°C	250°C 250°C 250°C		250°C	250°C	300°C			
For Pipe /Duct Size	( >170", please	170" consult with the acturer.)	$6^{\prime\prime}\sim170^{\prime\prime}$ ( $>\!170^{\prime\prime}$ , please consult with the manufacturer.)						
Sensor Size	10mm, 22mm or 32mm	10mm, 22mm or 32mm	10mm, 22mm or 32mm	10mm, 22mm or 32mm	22mm or 32mm	22mm, 32mm or 50mm			

### Instrument connection style

montument connection style										
	A.	В.	C.	D.	E.					
	Two Valve Type	Two Flange Type	Head Plate for 3-ways Manifold Direct-Mounting	With 3-ways Manifold valve	Thread Connection Only					



## **Process Mounting Hardware Style**



## **Ordering Information**

ordering information													
NFB	Code	Model								Instrument Connection Material			
		100	150	200	300	400A	400B		Α	Carbon Steel			
		Code	Body Ma	aterial					В	SS316 Standard Steel			
		1	SS316 st	andard	rd			$\neg$	C	Option			
			Code	Pipe Si	e Size				ī	Code	Process Mounting Hardware Style		
				Please d	directly fill out the request size 2"~170"(option)			)		В	Branch Outlet Fitting		
				Code	Instrum	Instrument Connection Style			F	Flange Fitting			
				A	Two Valve Type					T	Code Process Mounting Hardware		
				В	Two Flange Type					A	Carbon Steel		
				C	Head Plate for 3-ways Manifold Direct-Mounting With 3-ways Manifold Valve			ting			В	SS316 Stainless Steel Option	
				D							C		
	E		Thread Co	d Connection Only						Code	End Support		
												D	With
												N	Without
•	•	<b>V</b>							<b>\</b>	<b>V</b>	<b>\</b>	<b>\</b>	
NFB								+					Complete ordering code