

VNS

Flow Sensor for Liquid

- Compact and excellent cost performance
- Outstanding reliability with no moving parts
- Suitable for use in machines
- Easy-to-check 2-color LED(status) indicator
- 2 selectable outputs (Unitpulse,High-density pulse,Warning,Switch)



Specifications

Principal of measurement		Electromagnetic type with Faraday's law of electromagnetic induction		
Model (PROVISIONAL)		VNS05	VNS10	VNS20
Accuracy assured flow-rate range *2		0.05~1 L/min	0.5~10 L/min	3.0~60L/min
Measurement starting flow-rate		0.025 L/min	0.25 L/min	1.5 L/min
Piping connection		Socket type union joint (16A)	Socket type union joint (16A)	Socket type union joint (20A)
Accuracy *3	Unit pulse output	±2.0%RS (100~20% of the maximum flow-rate) ±0.4%FS (20~5% of the maximum flow-rate)		
Response time (at 63% response)		Standard: 2 seconds. Setting within the range of 0.1600 seconds is available.		
Fluid temperature range		0~40°C, freezing must be avoided. (VNS05 can resist 15 minutes per day of 95°C, whereas its accuracy is out of guarantee.		
Measurable fluid		Sodium hypochlorite (Concentration of 1~12%) Sodium hydroxide aqueous solution (Concentration of 10~25%) For other kind of liquid, by selecting with reference to the following major materials of the fluid-touching materials, please consult with us for suitability confirmation.		
Working ambient temperature range		-20~60°C		

Ambient temperature range for storage	-20~70°C
Fluid pressure range	0~1MPa
Signal cable	Standard cable length 0.5m 4-wires (AWG26) Line 1: Power + line Line 3: Output 1 Line 2: Power – line Line 4: Output 2 Top of the each: Soldered stranded wire
Display	1 LED display at the flowsensor's body Green: Flow-rate indication (Indication with blinking speed of 3 steps) Red: Alarm indication (Indication of abnormality with numbers of blinking)
Place of installation	Indoor installation (In case of outdoor installation, please take necessary measure so that the flowsensor is not exposed to rain and sun beam directly.)
Enclosure	IPX4
Corresponding standard	CE Standard *1
Fluid-touching materials	Main body: PEEK resin Electrodes: Pure titanium (2 kinds)O-ring: For sodium hypochlorite, etc. – FKM (Fluoro rubber) For Sodium hydroxide aqueous solution, etc. — EPDM (Ethylene propylene rubber)
Installation position	Free (Vertical piping is recommended.)

*1 Except EN61000-4-5(surge) because VN series is intended to utilize as the built-in flowsensor of a machine,etc.

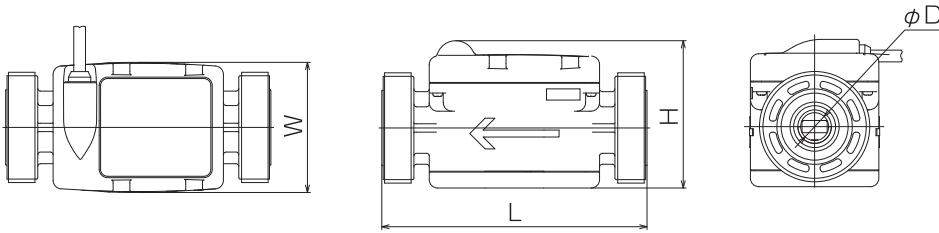
*2 (Minimum flow-rate ~ maximum flow-rate)

*3 For constant flow without pulsation.

Order Form

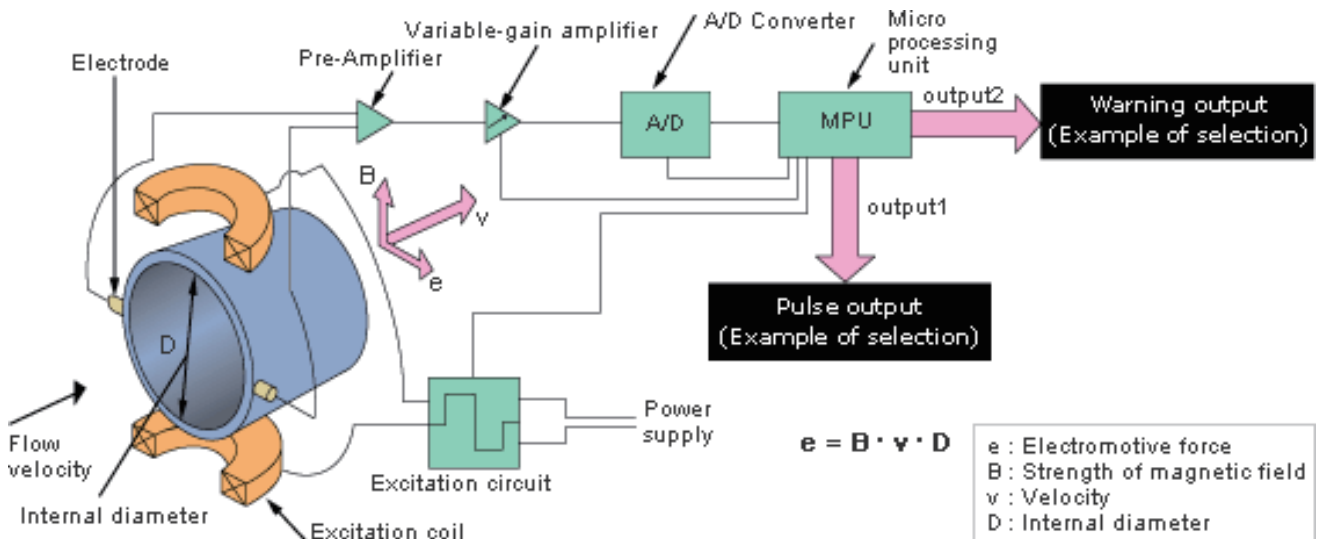
OF	**	Z	-	*	
Type					OF
	Diameter				05, 10, 20
		Z			A
			-		A, Z
				Materials in contact with fluid	F (Electrodes : Titanium · Oring : FKM) E (Electrodes : Hastelloy C22 · Oring : EPDM)

— Dimensions



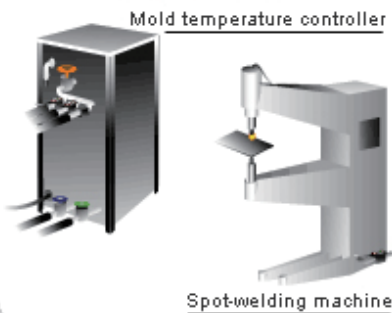
Model	L	W	H	φD
VNS05	95	47	51	5.2
VNS10	95	47	54	10
VNS20	110	49	64	20

— Measurement principle



— Examples of use

Coolant monitoring in molding machines / welding machines



Feedback control in pump system



Medical devices



Fuel cell system

