

NW Flow Sensor for Liquid

ND series instantaneous flow-rate/integrating flow volume flowmeter, it offers high accuracy measurement of not only cold and warm water but also pure water, chemical fluids, etc. It is light-weighted compact body and is compatible with various kinds of fluids with the carefully selected casing materials such as PP, ETFE, PPO, etc., and with the highly sensitive magnetic sensor of our own development.



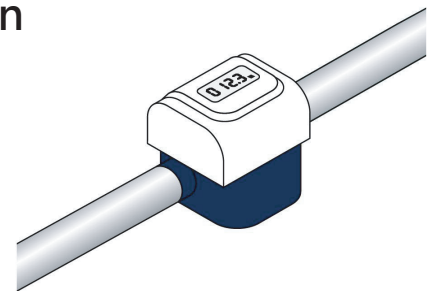
Feature

- Built-in lithium batteries (No external power supply is required)
- Indications of both instantaneous flow-rate and integrating flow volume by only 1 flowmeter
- Revolving display unit (It can be fixed to a easy-to-read position)
- Simplified structure with the vane wheel type measuring principle
- Measurement of various liquids
- Reset function for indications of Integrating Flow Volume (Total) and Integrating Flow Volume (Trip)
- Value holding function for Instantaneous Flow-Rate indication
- Pulse output function (Option)

Application

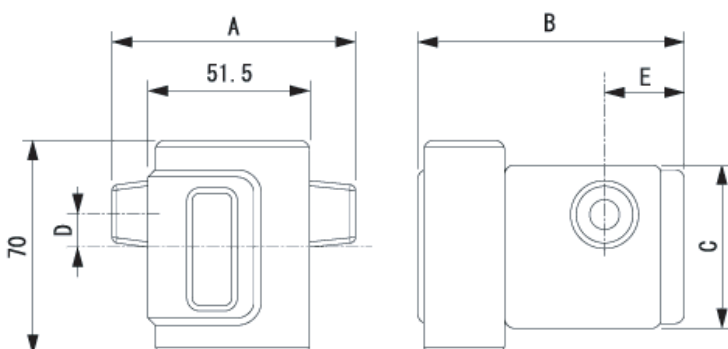
- To control of warm water temperature
- To constantly supply water and warm water
- To monitor coolant, etc.
- To proportionally inject chemical fluids
- To control pressure loss of filters

Installation



The standard installation position is that the display is facing upwards.
* The display is able to be revolved.

Dimensions



MODEL	NW05	NW10	NW20
A	80	80	110
B	87	8	105.5
C	52	52	74
D	11	11	16
E	25	25	35.5

Unit : mm

Specifications

Model NW (Local display type) / Model NW-P (With pulse output)

Local display type	NW05-NTN	NW05-PTN	NW05-TTN	NW10-NTN	NW10-PTN	NW10-TTN	NW20-NTN	NW20-PTN	
With pulse output	NW05-NTP	NW05-PTP	NW05-TTP	NW10-NTP	NW10-PTP	NW10-TTP	NW20-NTP	NW20-PTP	
Flow-rate range	0.3 - 3L/min			1.5 - 20L/min		1.0 - 10L/min	3.0 - 60L/min		
Accuracy	Flow-rate	±2%RS±0.05L/min			±2%RS±0.2L/min		±2%RS±0.05L/min		
	Volume	±2%RS (with the standard installation position)							
Measurable fluids	Various liquids (Please select with reference to the following major materials of the liquid-touching materials)								
Max. Working Pressure	1MPa (at the time of fluid temperature of 20°C)								
Pressure Drop	Not more than 12kPa (At the time of 3L/min)			Not more than 20kPa (At the time of 20L/min)		Not more than 15kPa (At the time of 10L/min)	Not more than 60kPa (At the time of 60L/min)		
Fluid viscosity range	0.5-1.5mPa·s								
Fluid temp. range	0±60°C								
Ambient temp. range	0±60°C 35-85%RH(Dew condensation must be avoided)								
Output signal (for NW-P)	Open drain output (Equivalent to open collector) Pulse width: Not less than 5ms Max. rating voltage: 30 VDC Output capacity: "ON resistance" Not more than 150Ω, "OFF resistance" Not less than 100kΩ (Remained voltage not more than 1.5V in case of input current not more than 10mA)								
Pulse unit (for NW-P)	10mL/p			1mL/p		1mL/p			
LCD	Flow-rate (Smallest Scale)	0.05L/min			0.2L/min		0.5L/min		
	Flow-rate (Display digits)	00.00L/min			000.00L/min		000.00L/min		
	Volume (Display digits)	000000.00L			0000000.0L		0000000.0L		
Power supply	Built-in lithium battery (Battery life 4 years. Not replaceable.)								
Measurable fluids	Refer to "MEASURABLE FLUID AND PARTS MATERIALS"								
Structure	IP64 equivalent, Indoor installation								
Connection	R1/2	R1/2	R1/2	R1/2	R1/2	R1/2	R3/4	R3/4	
Meter Weight	Approx. 280g	Approx. 280g	Approx. 280g	Approx. 250g	Approx. 250g	Approx. 250g	Approx. 250g	Approx. 500g	
Major materials of the liquid touching parts	Casing	Denatured PPO	PP	ETFE	Denatured PPO	PP	ETFE	Denatured PPO	PP
	Vane wheel	POM	POM	ETFE	POM	POM	ETFE	POM	POM
	Pivot	SUS304	PA	ETFE	SUS304	SUS304	ETFE	SUS304	SUS304
	O-ring	NBR	FKM	FKM	NBR	FKM	FKM	NBR	FKM
	Magnet	Sa-Co *1	Sa-Co *1	Sa-Co *1	Ba-Fe	Ba-Fe	Sa-Co *1	Ba-Fe	Ba-Fe

Any installation position other than the standard installation position is not available for NW05-TTN, NW05-TTP, NW10-TTN, and NW10-TTP.

*1: The magnet does not touch liquid.

● Materials -Abbreviations

Denatured PPO	Denatured Polyphenylene oxide	PA	Polyamide
PP	Polypropylene	NBR	Acrylonitrile-Butadiene Rubber
ETFE	Ethylene-tetrafluoro ethylene	FKM	Fluoro Rubber
POM	Polyacetal or Polyoxymethylene	Sa-Co	Samarium-Cobalt
SUS304	Stainless steel 304	Ba-Fe	Barium-ferrite