

HNF10-B

ELECTRONIC FLOW SWITCH

PRODUCT APPLICATIONS

All-metal casing design, 8-digit LED to display flow trend and switch status, one product is suitable for various pipe diameters and can be set by induction buttons or computer. No moving parts, maintenance-free, can be used for a variety of media.



PRINCIPLE CHARACTERISTICS

Using the principle of heat diffusion, there are two temperature sensors in the probe, one is used as a reference sensor to measure the medium temperature, and the other is used as a measuring sensor after being heated.

The temperature difference between the two sensors is used as the basis for measuring the flow rate. When the medium flow rate increases, the temperature difference decreases, and vice versa. The temperature difference is converted into a standard electrical signal after processing and displayed.

TECHNICAL PARAMETERS

SPORTS EVENT	NUMBERS
Measuring range	Water: 1..150cm/s (default), Oil: 3...300cm/s, Air: 20..2000cm/s
Measuring medium	Water, oil, gas and other media compatible with stainless steel
Repeatability	1%@<0.6m/s; 3%@<1.5m/s; 10%@>1.5m/s

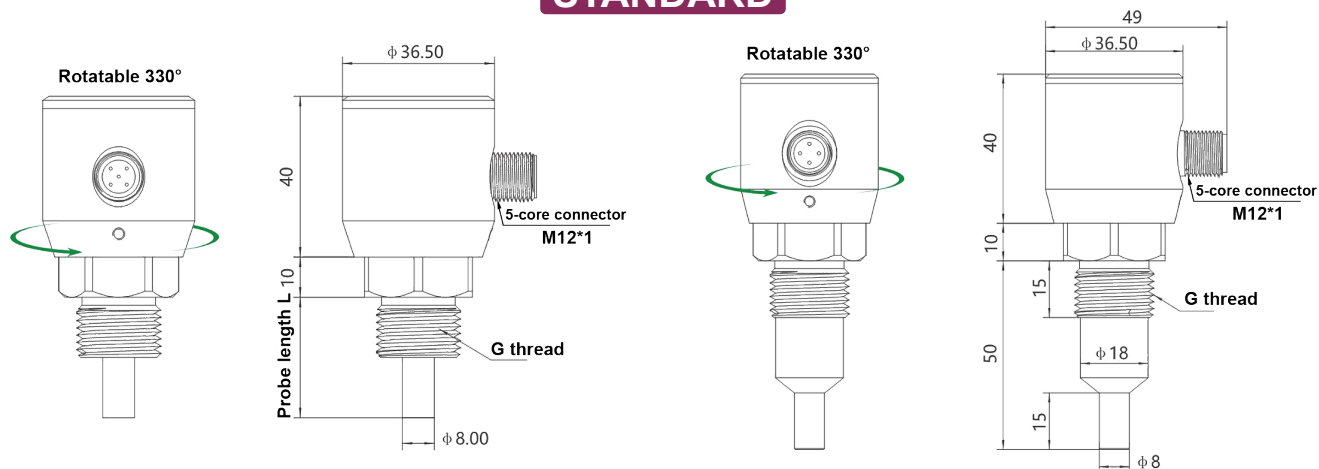
Pressure resistance	100bar(300bar optional)
Initialization time	1...8s
Response time	Typical value 2s
Supply voltage	12-30Vdc
No-load current consumption	≤40mA, when powered by 24Vdc
Output Type	PNP/NPN/Relay optional/NO/NC adjustable
Load Capacity	500mA at 24Vdc power supply (NPN and PNP type) 24Vdc/1A (relay type)
Show	3 red LEDs (flow rate < switch point), 1 yellow LED (flow rate = switch point), 4 green LEDs (flow rate > switch point)
Wiring protection	Reverse phase, overload, short circuit protection
Operating/Storage Temperature	-40...85°C
Medium temperature	-20...85°C(-30...120°C)
Shell material	Stainless steel 304
Probe material	Stainless steel 304/Stainless steel 306L
Protection level	IP67
Outlet mode	M12*1 connector

LED FUNCTIONS AND SETTINGS

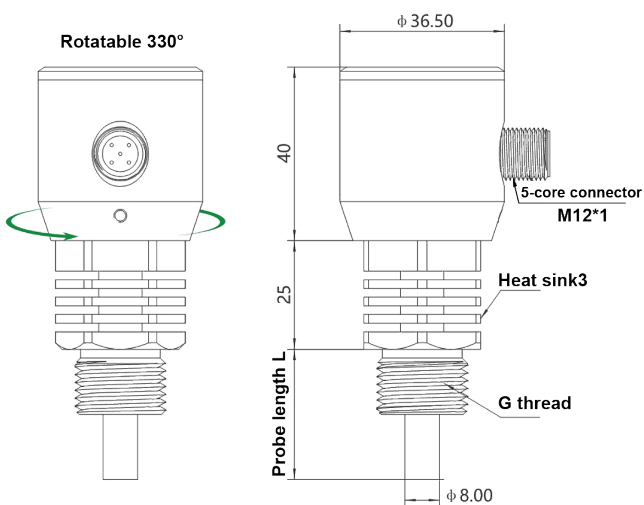
	The red light is on, indicating that the current flow rate is lower than the set flow rate at the switch point, and the switch is not actuated.
	The yellow light is on, indicating that the current flow rate is equal to the set flow rate at the switch point, and the switch is actuated.
	The green light indicates that the current flow rate is higher than the switch point setting value, and the switch maintains the output action. The more green lights are on, the greater the flow rate.
Notes	Supports arbitrary setting of switch value on site

PRODUCT SIZE(MM)

STANDARD

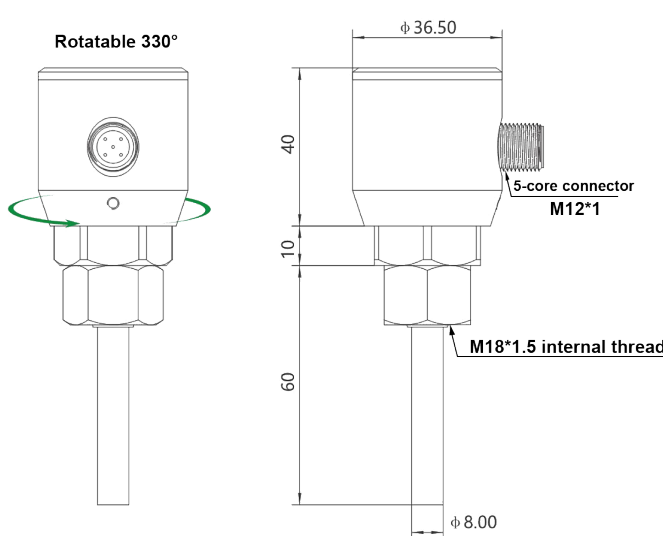


HEAT DISSIPATION TYPE

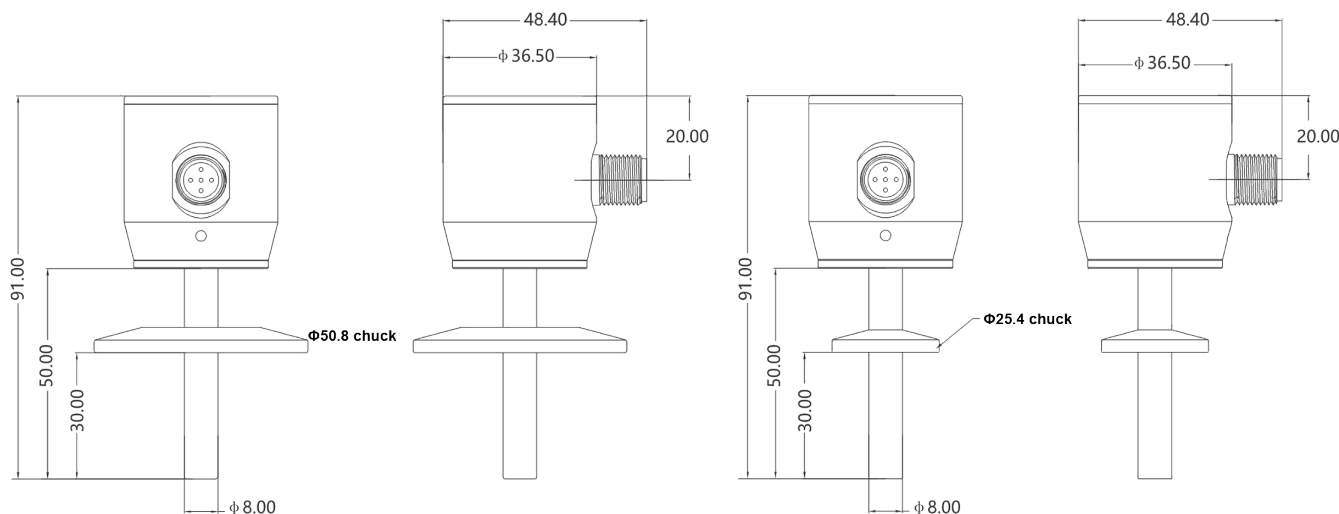


INTERNAL THREAD

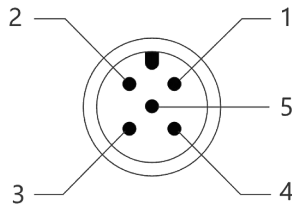
With welding base, it can be used for various calibers



HYGIENIC

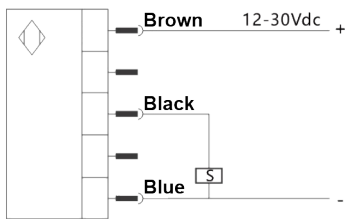


PRODUCT WIRING DIAGRAM

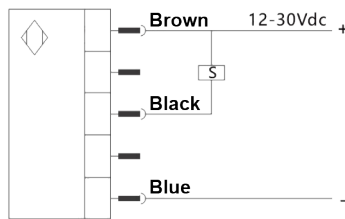


Signal	Pins	Cable
Power positive	1	Brown
Negative power supply	3	Blue
Switching output S1	4	Black
Switching output S2	2	White
Analog output (voltage or current)	5	Grey

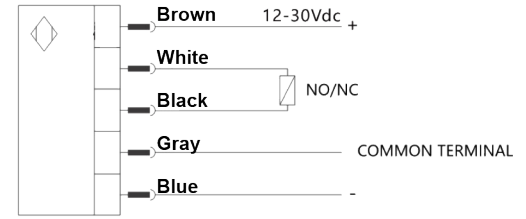
PNP



NPN



Relay output



HNF10-B ELECTRONIC FLOW SWITCH SELECTION CHART

NAME	CODE	CODE DESCRIPTION
Output method	P	PNP output
	N	NPN output
	C	Relay output
Supply Voltage	G	G1/2 external thread
	G14M	G1/4 external thread
	N	NPT1/4 external thread
	M	M18*1.5 internal thread
	K	Food grade chuck connection
Output method	L025	Probe length: L=25mm (including thread) suitable for G1/4 thread, <DN15 diameter
	L030	Probe length: L=30mm (including thread) (standard type)
	L050	Probe length: L=50mm (including thread)
Electrical accessories	LXXX	User-defined probe length
	-	Standard type
	G	High temperature type