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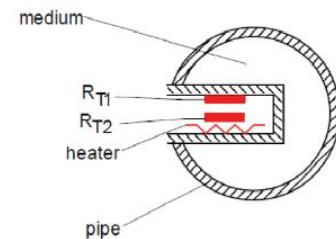
RFCR08 Thermal Flow Sensor

- ▶ Wide measuring range
- ▶ Setting point or measuring range programmable through keys
- ▶ More parameters programmable through hand-held device or computer
- ▶ 8 LEDs display for switching status and flow trend
- ▶ PNP/NPN/Relay output selectable
- ▶ Compact design (diameter 36mm)



Based on thermodynamic principle, RFCR08 features 2 temperature sensors inside the probe: one for medium temperature, the other one is heated a few degrees up compared to the medium into which it projects. When the medium flows, the heat generated in the sensor is conducted away by the medium. The difference between these two sensors can be measured to get the flow rate.

All-metal housing; 8 LEDs for switching status and flow trend display; No moving parts to minimize maintenance, Applicable to various medium.



Specifications

Measuring Range	
Water	1 to 200cm/s
Oil	3 to 300cm/s
Air	20 to 2000cm/s
Applicable Medium	Water, oil and gas which is compatible with 316 stainless steel
Repeatability	1%@<0.6m/s; 3%@<1.5m/s; 10%@>1.5m/s (for water)
Pressure Rating	100bar (200bar selectable)
Initialization Time	1 to 8s
Response Time	2s typical
Power Supply	24±10%VDC

Current Consumption	≤100mA (power supply 24VDC, no-load)
Switching Output(NC+NO)	
Output type	PNP/NPN/relay output optional, NC/NO programmable
Load capacity	500mA (power supply 24VDC, NPN/PNP output)
	60W (relay output)
Wiring Protection	Reverse polarity, overvoltage and short-circuit
Display	3 red LEDs (flow velocity < switch point)
	1 yellow LED (flow velocity = switch point)
	4 green LEDs (flow velocity > switch point)
Temperature	
Operating	-40 to 85°C
Medium	-20 to 85°C, up to 130°C (not more than 2 hours)
Material	
Housing	304 stainless steel
Probe	304 stainless steel/316 stainless steel (for the sanitary)
Protection Class	IP67
Electrical Connection	M12x1plug

Applications

- ▶ Hydraulic system
- ▶ Lubrication system
- ▶ Pump protection
- ▶ Cooling water monitoring
- ▶ Venting systems
- ▶ Water treatment
- ▶ Leaking test
- ▶ Machinery manufacture
- ▶ Equipment manufacture
- ▶ Engineering project

LED Function & Setup

RFCR08 Thermal Flow Sensor

Rev. RFCR-1.0

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	Red LED indicates that current flow is less than switch point.
	Yellow LED indicates that switch point was reached and switch state changes.
	Green LED indicates that current flow is higher than switch point, switch keeps state. More green LEDs indicate higher flow rate.

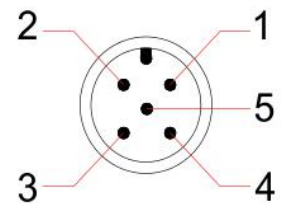
Install the switch properly and set the flow rate to what you want to monitor, adjust the switch using the magnetic bar to make the first green light on. Once done, switch state changes if flow rate is lower than current flow.

Setup through magnetic bar, hand-hold device or computer



Wiring

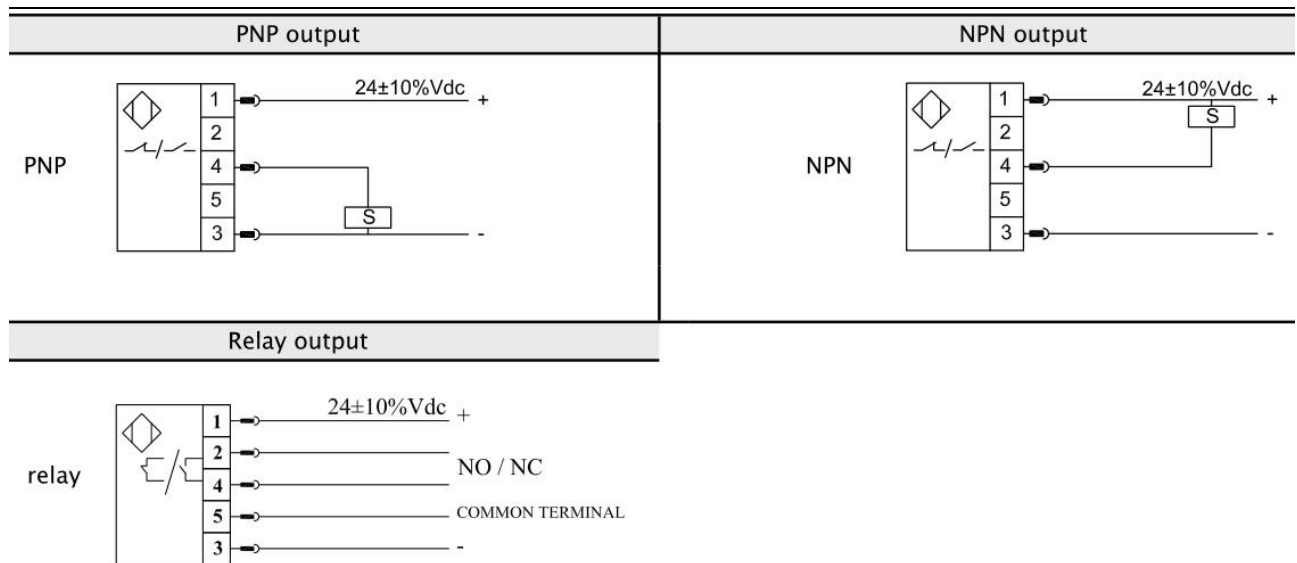
Signal	Plug	Cable
U+	1	Brown
U-	3	Blue
Output 1	4	Black
Output 2	2	White
Communication	5	Gray



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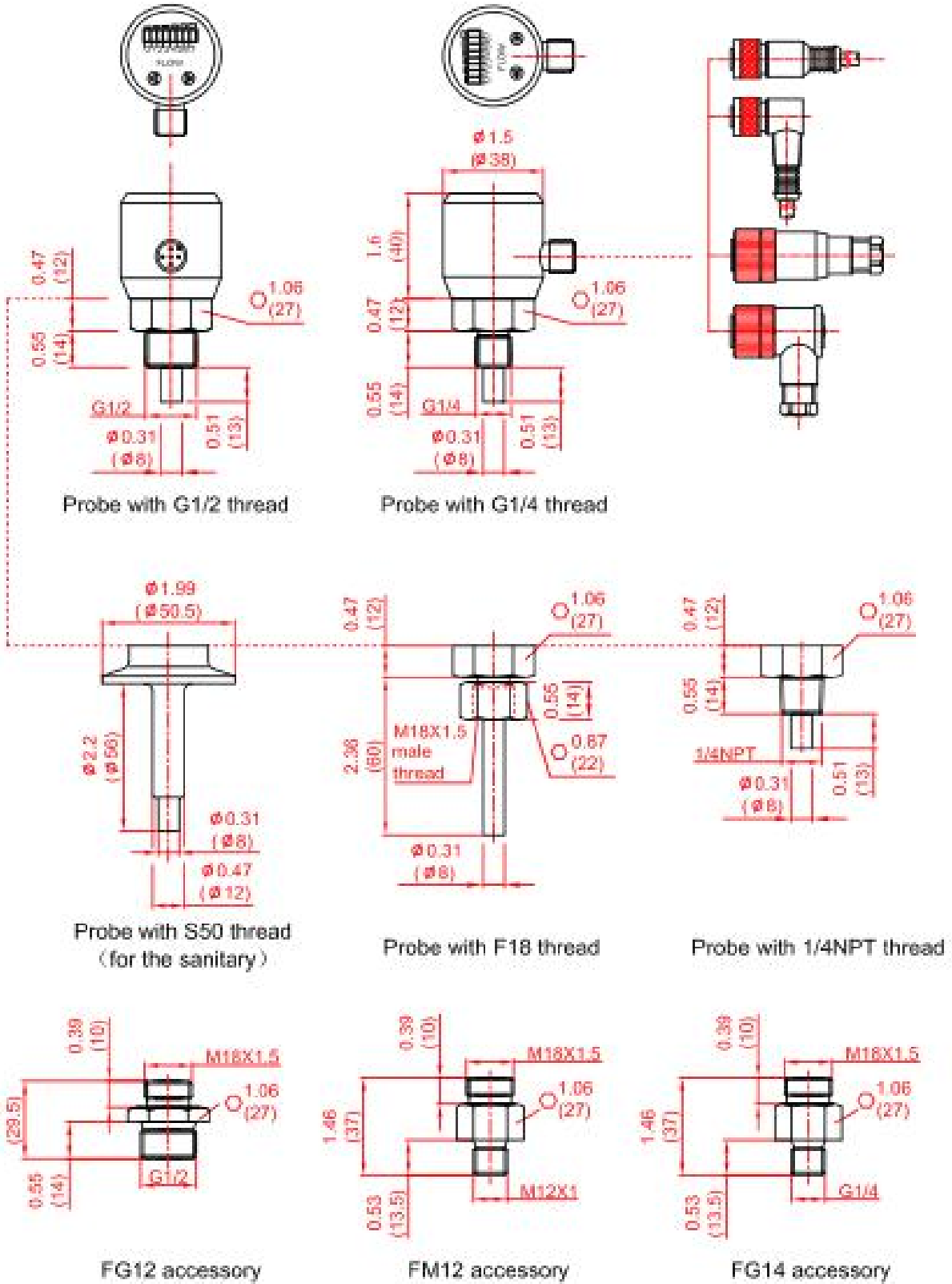


Dimensions in inches (mm)

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Order Code

						RFCR	Thermal flow sensor
						08:	Series Number
						P :	PNP output
						N :	NPN output
						R :	Relay output
						G12M :	G1/2 male thread
						G14M :	G1/4 male thread
						N14M :	NPT1/4 male thread
						F18F:	M18×1.5 female thread
						S50F:	Tri-clamp connection for sanitary standards

RFCR	08/	P	G12M	S	M025
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S :	M12X1 with 5-pin plug
MXXX :	Probe length (metric system) L=XXX mm
IXXX :	Probe length (english system) L=XXX inch

Note: One of the connectors FG12, FM12 or FG14 must be ordered for sealing purpose if probe is F18.

Special Order on Request

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