



# FTC05 Hot Wire Thermal Flow Switch



## | Features |

- The flow switch is suitable for oil, water, gas and liquid level detection
- Can set the switch point or range
- PNP/NPN/Relay output selectable
- Metal shell design, easy installation, measuring rod withstand pressure of 10 bar (length can be customized)
- LED light indicator, simple shape

## | Introduction |

Based on thermodynamic principle, eYc FTC05 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 flow rate. All-metal housing, Suitable for a variety of pipe diameters.

## | Applications |

Hydraulic / Lubrication system / Pump protection / Cooling system / Venting systems / Water treatment / Leak monitoring / Flow detection and control of various delivery pipelines

## | Specifications |

### Input

Input	Resistance Temperature Detector (RTD)
Measuring range	Water : 1 ... 200 cm/s
	Oil : 3 ... 300 cm/s
	Gas : 3 ... 20 m/s

### Output

Output	PNP / NPN / Relay
Signal connection	M12
Load resistance	Type NPN, PNP : 500mA when powered by DC 24 V
	Relay : 36 W
Response time	≤ 3 s
Warm-up time	≤ 10 s

### Environmental

Medium	Water, oil and gas which is compatible with stainless steel
Medium temperature	0 ... +50°C
Operating Temp.	-20 ... +60°C
Operating Humid.	0 ... 100%RH
Storage temperature	-40 ... +85°C
Proof pressure	10 bar

### Electrical

Power supply	DC 24 V ± 10%
Current consumption	≤ 70 mA
Overvoltage protection	DC 40 V(Max.)
Electrical connection	M12 connector

### Installation

Installation	Thread
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### Protection

IP rating	IP65(Option IP67)
Electrical protection	■ Reverse polarity
	■ Over-voltage
	■ Short-circuit

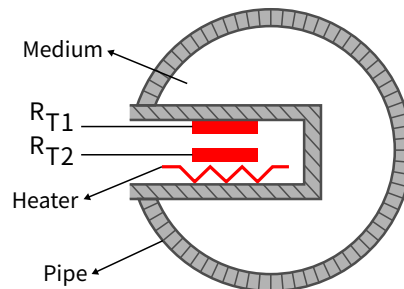
### Certification

Certification	CE
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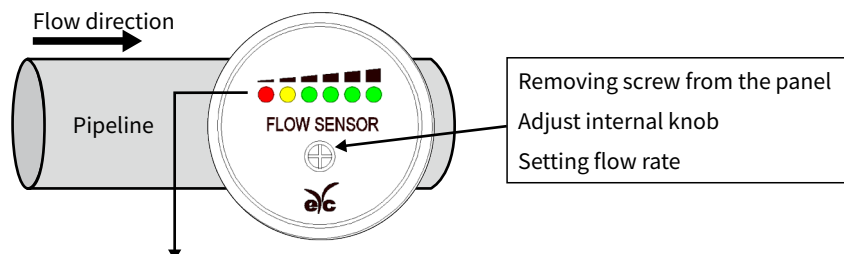
### Material

Housing	SUS304
Weight	290 g(Without wire)

## | Sensor Schematic Diagram |



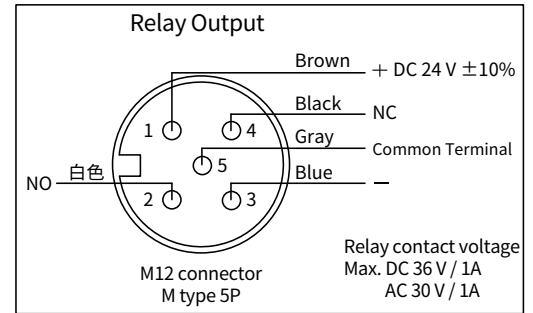
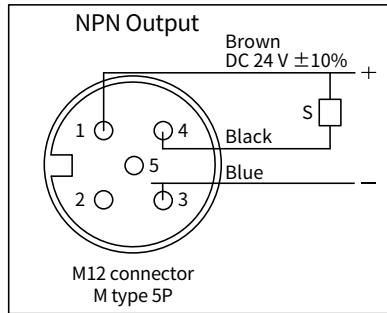
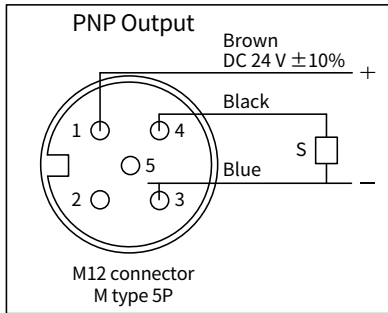
## | Description |



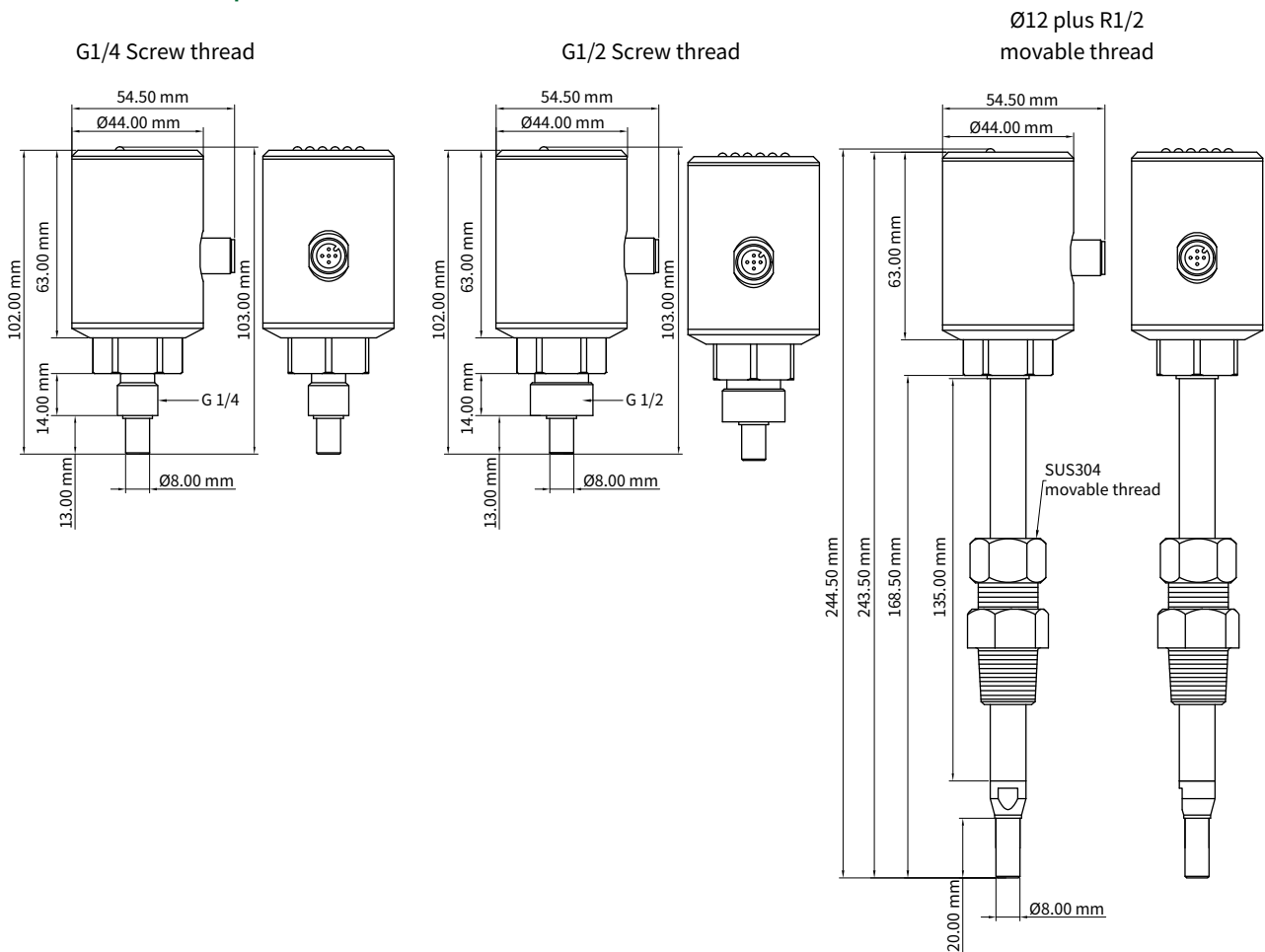
### LED Function:

Flow rate > setting point	Red light on, switch off
Flow rate = setting point	Yellow light on, switch on
Flow rate < setting point	First green LED light : Over then set point more
Red → Green	Relay on at first green LED
Red ← Green	Relay off at yellow LED

## Connection Diagram



## Dimension



## Ordering Guide

FTC05	—	Output	—	Power supply	—	Installation	—	Option
		<b>N</b>		<b>1</b>		<b>1</b>		<b>N</b>
		N : NPN P : PNP R : Realy		1 : DC 24 V ±10%		1 : G1/2 Screw thread 2 : G1/4 Screw thread 3 : Ø12 Plus R1/2 movable thread		N : No W : Other request