

## Temperature Sensor Y921

The Y921 is a high-precision NTC temperature sensor, utilizing a thermistor element whose resistance varies with the temperature of the measured medium. Featuring high reliability, accurate performance, and ease of use, this product is ideal for fluid temperature measurement applications involving non-corrosive media to stainless steel.

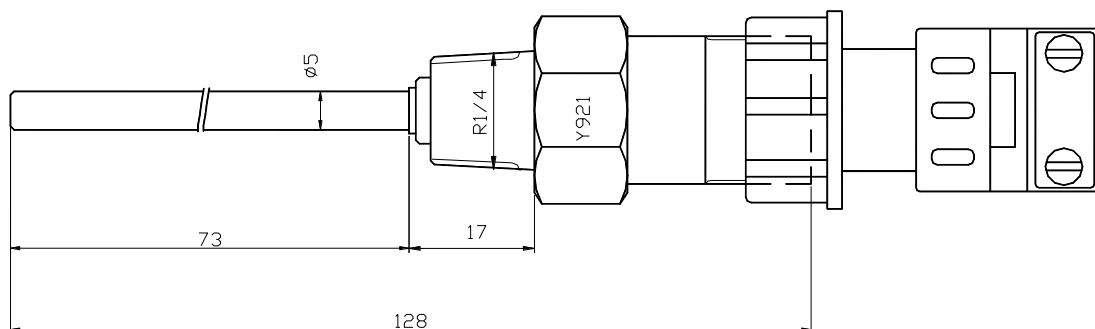
### Parameters

#### Operating Parameters

- Operating temperature:  $-50^{\circ}\text{C} \sim +150^{\circ}\text{C}$
- Typical measurement range:  $-50^{\circ}\text{C} \sim +100^{\circ}\text{C}$
- Connector usage temperature:  $-40^{\circ}\text{C} \sim +60^{\circ}\text{C}$
- Operating current: 1mA
- Insulation resistance:  $\geq 20\text{M}\Omega$
- Pressure rating:  $\geq 3000\text{kPa}$
- Thermistor Characteristics:

Temp ( $^{\circ}\text{C}$ )	25	50	60	70	80	90	100
R ( $\text{K}\Omega$ )	10.560	4.498	3.300	2.441	1.837	1.390	1.067
TOL. ( $\text{K}\Omega$ )	$\pm 0.056$	$\pm 0.034$	$\pm 0.024$	$\pm 0.016$	$\pm 0.011$	$\pm 0.008$	$\pm 0.006$

#### Outline & Interface



## Notes

- To ensure accuracy and responsiveness, install the sensor counterflow or orthogonal to the medium flow. The tip of the sensor nozzle contains the thermistor and should be positioned as close to the center of the medium flow as possible.
- Keep the connector area clean and dry to avoid signal interference.
- It is recommended to use cables with cross-sectional area around 1 mm<sup>2</sup> for wiring.
- The sensor nozzle has a thin wall, so handle with care during installation and transport to prevent deformation.
- Diagnostic tip: If sensor malfunction is suspected, use a multimeter to check resistance across the connector terminals. At room temperature, the resistance should be around 10kΩ; at elevated temperatures, it should fall to 1~5kΩ. If there is no continuity, remove the connector and measure directly across the sensor pins. If still non-conductive, the sensor is likely damaged.