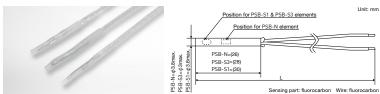
# Liquid temperature

# MP2

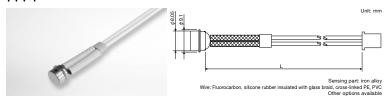


#### Heat, oil and solvent proof

Features	Excellent heat, oil and solvent proof with fluorocarbon sealing
	Fixing bracket design is available
	Applicable to high temperatures and highly accurate measurements
Applications	Showcase freezers
	Liquid level detection (using PSB-S3 glass-encap. thermistor element only)
Operating temperature	-30 to +200°C Please consult us when higher temperatures are required.
Thermal time constant	PSB-S1 & PSB-N glass-encap. thermistor elements $\tau = 8$ sec. (in stirred liquid)
	PSB-S3 glass-encap. thermistor elements $\tau = 4$ sec. (in stirred liquid)
Dissipation constant	PSB-S1 & PSB-N glass-encap. thermistor elements $\delta \doteq 2$ mW/°C
	PSB-S3 glass-encap. thermistor elements $\delta = 1.2 \text{mW/°C}$
Withstand voltage	1200VAC for 1 sec.
Insulation resistance	Min. 100M $\Omega$ at 500VDC
Resistance	$R100 = 3.3k\Omega$ Other options available
B constant	B0/100 = 3970K Other options available

# Hermetic

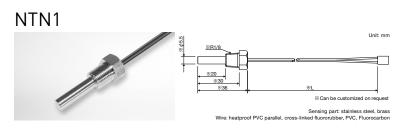
### HT1



Fast response Response is compared to other Shibaura hermetic type sensors

Features	Robust casing and fast response
	Hermetic type standard surface temperature sensor
Applications	Electric pots, dishwashers, hot plates, IH grill pans
Operating temperature	-20 to +180°C (except connector)
Thermal time constant	$\tau \doteq$ 4 sec. (on an aluminium hot plate at 100°C)
Dissipation constant	$\delta \Rightarrow 3mW/^{\circ}C$
Withstand voltage	1800VAC for 1 sec.
Insulation resistance	Min. 100MΩ at 500VDC
Resistance	$R100 = 3.3k\Omega$ Other options available
B constant	B0/100 = 3970K Other options available

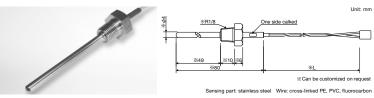
### Equipped with a threaded tube



#### Equipped with a customizable cut protection tube

Features	Standard sensor equipped with a cut nipple protection tube
	Excellent mechanical strength and humidity resistance with a glass-encapsulated
	thermistor element sealed in a stainless steel protection tube
	Oustomizable dimensions
Applications	Hot water boiler tanks, machine tool oil, medical equipment water
Operating temperature	-20 to +105°C
Thermal time constant	$\tau = 5$ sec. (in stirred water)
Dissipation constant	$\delta = 3.5 \text{mW/}^{\circ}\text{C}$
Withstand voltage	1000VAC for 1 sec.
Insulation resistance	Min. 100M $\Omega$ at 500VDC
Resistance	Optional
B constant	Optional

### MPM1



#### Water proof solution equipped with a stainless protection tube

Features	Superior in mechanical strength with a combination of a stainless protection tube and a glass-encapsulated thermistor element
	<ul> <li>Has a water-sealed thermistor element (using PTFE only for thermistor element lead wires)</li> </ul>
	Longer protection tubes than NTN1
	Customizable dimensions
Applications	Hot water boiler tanks, machine tool oil, medical equipment water
Operating temperature	-20 to +150°C
Thermal time constant	$\tau \doteq$ 20 sec. (in stirred water)
Dissipation constant	$\delta = 1.5 \text{mW/°C}$
Withstand voltage	1000VAC for 1 sec.
Insulation resistance	Min. 100MΩ at 500VDC
Resistance	Optional
B constant	Optional