## Equipped with a copper protection tube



Using a glass-encapsulated thermistor element, low cost Cost is compared to other Shibaura sensors equipped with a copper protection tube



## KTM1



Using a bare thermistor chip, low cost Cost is compared to other Shibaura sensors equipped with a copper protection tube

Features	A bare thermistor chip is sealed in a copper protection tube
	Lower cost than using a glass-encapsulated thermistor element
	Many variants of the protection tube are available
Applications	Air conditioner pipes
Operating temperature	-30 to +100°C
Thermal time constant	$\tau = 7.5$ sec. (in stirred water)
Dissipation constant	$\delta = 5.5 \text{mW/°C}$
Withstand voltage	1200VAC for 1 sec.
Insulation resistance	Min. 100MΩ at 500VDC
Resistance	$R25 = 10k\Omega$ , $R25 = 5k\Omega$ Other options available
B constant	B25/50 = 4100K, B25/50 = 3950K Other options available



Using a glass-encapsulated thermistor element



Applicable to a wide temperature range





Using a bare thermistor chip

Features	A bare thermistor chip is sealed with epoxy resin
	O Lower cost than using a glass-encapsulated thermistor element
Applications	Air conditioners (room & outdoor air)
Operating temperature	-30 to +80°C
Thermal time constant	$\tau \doteq$ 5 sec. (in stirred water)
Dissipation constant	$\delta = 5 \text{mW/°C}$
Withstand voltage	1200VAC for 1 sec.
Insulation resistance	Min. 100M $\Omega$ at 500VDC
Resistance	$R25 = 10k\Omega$ , $R25 = 5k\Omega$ Other options available
B constant	B25/50 = 4100K, B25/50 = 3950K Other options available