

## TTB Miniature Embedment/Bearing Thermocouple Sensor

Embedment thermocouple sensors are most commonly used to monitor the bearing temperatures of rotating equipment. The recognition of a rising temperature can provide an early warning of the breakdown of the lubrication. This early warning allows the process to be shut-down for maintenance before a major breakdown or costly failure occurs.

The miniature bearing sensors provide a cost-effective solution to bearing temperature monitoring. Suitable for use between -25°C and +260°C.

Easy to install, the sensors are inserted directly into the bearing shoes, in or beneath the Babbitt layer. The small diameter tips are commonly epoxy sealed into drilled holes in the shoes, whilst the spring loaded style tip is inserted into a milled hole, the self-locking retaining clip is then pushed into the hole to compress the spring.

The D (Top-Hat) Style Tip is supplied with a retaining clip and spring.

- Cost-effective solution to bearing temperature monitoring
- Easy to install
- Cap and Top-Hat tip styles

- Stainless steel and phosphor bronze tip materials
- Custom extension cable lengths
- Insulated measuring junction gives high insulation resistance



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1	conductor/thermocouple type (IEC 60584.1)		conductor temperature range	code
	Type K	Nickel Chromium vs. Nickel Aluminium	0°C to +1100°C	K
	Type J	Iron vs. Constantan	-50°C to +750°C	J
	Type T	Copper vs. Constantan	-200°C to +350°C	T

2		tip style & dimensions				
standard tip		code		top-hat tip		code
Tip Diameter (D1)	Tip Length (L1)	Phosphor Bronze	Stainless Steel	Tip Diameter (D1)	Tip Length (L1)	Stainless Steel
3.0mm	8.0mm	-	ZS	6.0mm	6.0mm	THC
3.2mm (1/8")	8.0mm	AP	AS	6.35mm	6.0mm	THD
4.0mm	9.0mm	BP	BS			
6.0mm	6.0mm	CP	CS			
6.35mm (1/4")	8.0mm	-	DS			

Top-Hat Tip Accessories

RC846 Retaining Clip  
8mm OD x 4.0mm ID, 6 prongs

RS126 Spring  
12mm x 6.0mm Ø

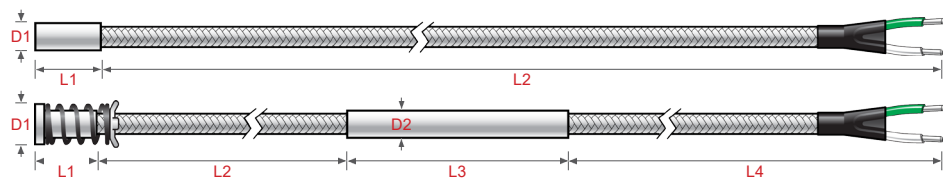
3	sensing junction	code
	simplex, insulated	S
	duplex, insulated	D

4	extension cable length (L2)	cable construction	junction	code
As required to suit your application  (e.g. 1000mm)		7/0.15mm conductors, extruded PFA, Twisted (no outer sheath)	Simplex	CT02
		7/0.20mm conductors, extruded PFA, Twisted, extruded PFA overall	Simplex	CT25
		7/0.15mm conductors, extruded PFA, Twisted, Stainless Steel Wire Braided overall	Simplex	CT02/SSB
		7/0.15mm conductors, PTFE Taped & Sintered, Twisted, PTFE Taped & Sintered, Stainless Steel Wire Braided overall	Simplex	CT04/SSB
		2 pairs, 7/0.2mm conductors, extruded PFA, twisted, extruded PFA	Duplex	CTM02
		2 pairs, 7/0.2mm conductors, extruded PFA, twisted, extruded PFA, Stainless Steel Wire braided overall	Duplex	CTM02/SSB

5		optional oil seal barrier *		6	extension cable	
diameter (mm)	std length (mm)	(D2)	(L3)	compatibility (prefix code with required length L4)		
				simplex	duplex	
3.0	60.0			CT02, CT02/SSB	-	
3.2 (1/8")	60.0			CT02, CT02/SSB	-	
4.76 (3/16")	60.0			CT02, CT25, CT02/SSB, CT04/SSB	CTM02, CTM02/SSB	
5.5	60.0			CT02, CT25, CT02/SSB, CT04/SSB	CTM02, CTM02/SSB	
6.0	60.0			CT02, CT25, CT02/SSB, CT04/SSB	CTM02, CTM02/SSB	
6.35 (1/4")	60.0			CT02, CT25, CT02/SSB, CT04/SSB	CTM02, CTM02/SSB	

\* Tested to a minimum pressure of 5 bar for a minimum of 30 minutes

Without oil seal barrier L2 = tip to tails. With oil seal barrier L2 = tip to oil seal barrier, L3 = oil seal barrier, L4 = oil seal barrier to tails



order code Example (with oil seal barrier)	1	2	3	4 (L2 & Cable Code)	5 (D2 x L3)	6 (L4 & Cable Code)
TTB - K - AP - S - 500mm CT02/SSB - OSB 6.0 x 60.0 - 1000mm CT02/SSB	K	AP	S	500mm CT02/SSB	OSB 6.0 x 60.0	1000mm CT02/SSB