

100# Series

- Manufactured as per IEC 1515-1995.
- Metal Sheathing and mineral insulation reduces overall size of inserts.
- Can be used at relatively higher temperatures.
- Pliable and can be routed through high temperature environment.
- Available with a choice of cold end termination (CJTs) and connectors.
- Certified for use in hazardous area.
- Thermo Couple available in ANSI TC Types J, K, T, E, N, R, S & B (EC - 584 - Part 1, 2 & 3).
- Pt100 RTDs to IEC 751-1995.
- Certified for use in hazardous area.
- Ungrounded hot junction as a standard feature.
- Integral lead wires with PTFE or Fibreglass insulation.
- Special designs to suit your applications.



MI Thermocouple sensors employ a metal Sheathed, Mineral insulated cable with matched Thermocouple conductors. The insulation is a compacted mass of MgO and this heterogenous cable, when converted into a Thermocouple sensor offers many unique advantages over the Conventional ceramic bead insulated Thermocouples. MI Thermocouple sensors are pliable, can be bent, coiled, routed through bends or intricate paths, bundled together to form a Multiple sensor assembly or welded to a tube or any surface to measure skin temperatures. The junction and Thermocouple conductors are not exposed to process fluids thus ensuring a longer usable life.

MI Thermocouples sensors are generally supplied with their hot junction isolated or ungrounded from the sheath. This enables the users to carry out periodical checking of the Thermocouple sensors. Bonded or grounded junction sensors are also supplied against request.

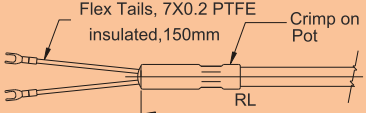
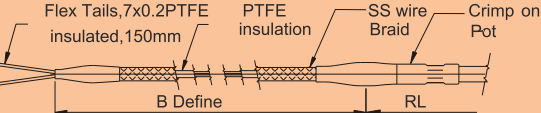
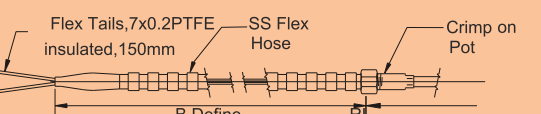
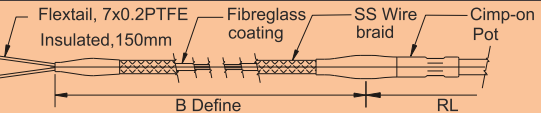
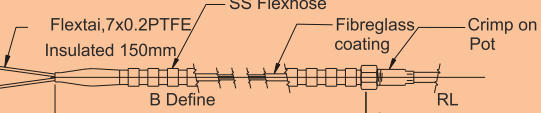
MI Resistance Thermometer sensor incorporates a wire wound element conforming to IEC 751 Class "A" or "B". The element leads are extended to the open end of the sensor by means of a MI Transducer lead out cable employing Nickel or conductors, constant or copper, compact mass of MgO as insulation and stainless steel sheath conforming to AISI 316. The standard overall sheath diameter available are 6mm, 4.8mm and 3.2mm.

Sensors, when built, are subject to all the routine tests as per IEC 751-1995. Type tests and any other special test can be carried out by mutual agreement.

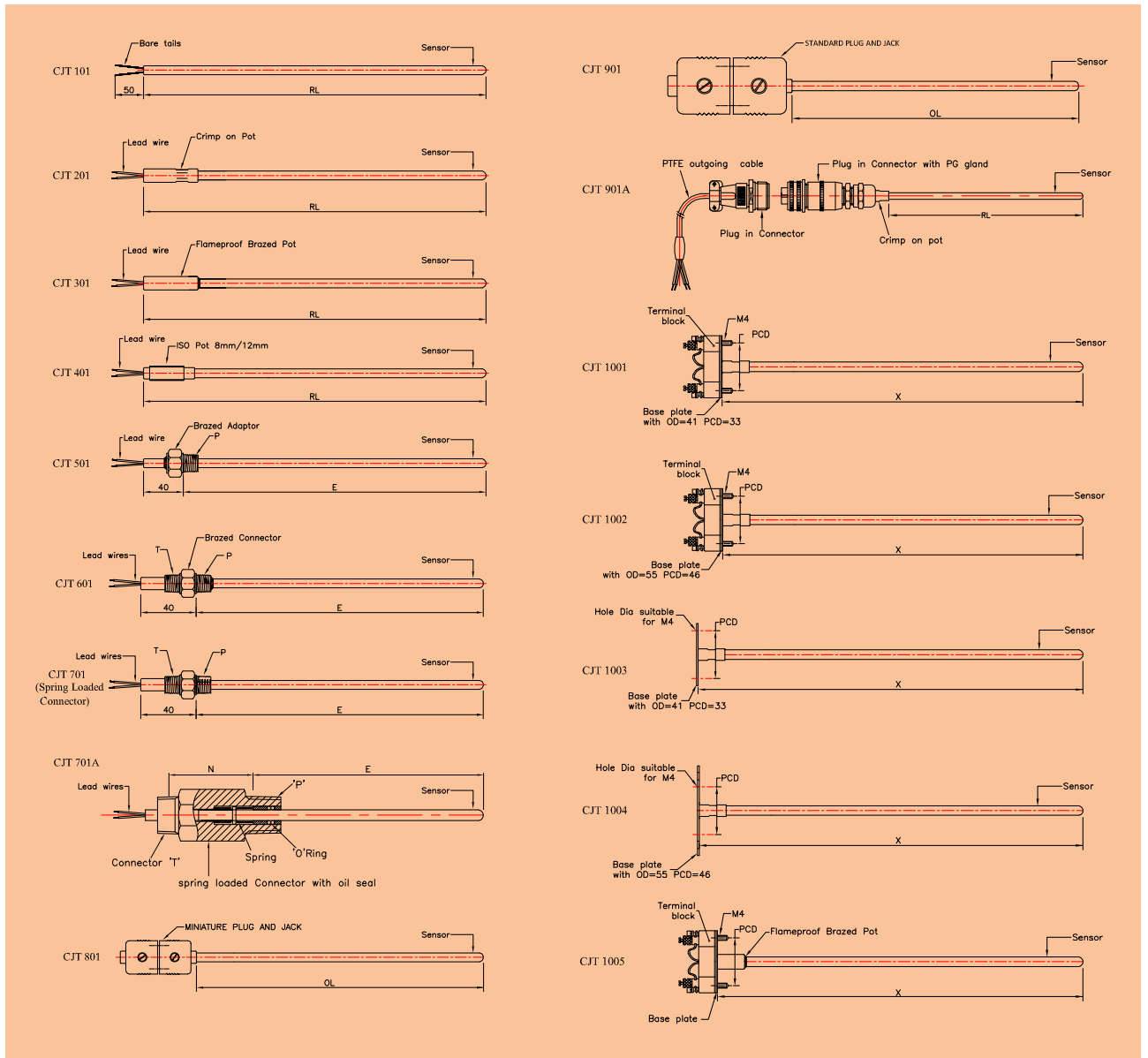


	ANSI Type	Sheath dia	Wire dia
SINGLE 	J,K,T,E,N	3.0	0.6
		4.5	0.9
		6.0	1.2
		8.0	1.6
DUPLEX 	J,K,T,E,N	3.0	0.5
		4.5	0.5
		6.0	0.9
		8.0	1.2

LEAD OUT CABLE DETAILS

CODE 1: PTFE Insulated Lead wires	
CODE 2: PTFE Insulated Lead wires with SS Over braid	
CODE 3: PTFE Insulated Lead wires with SS Flexhose	
CODE 4: PTFE + FG With SS Over Braid	
CODE 5: PTFE + FG With SS Flexhose	

100# Series



Ordering Example - RTD

100#1-Pt100A-3W-6-316-IEC 751-CJT701-3-150-X-E=500-X-1/2"NPT-1/2"NPT-OPTION-14B

Model	Suffix Codes	Description
100#RTD		100# RTD Insert/Probe
No of Elements	1..... 2..... 3.....	Simplex Duplex Triplex
Element Type	Pt100A..... PT100B..... Pt200A..... Pt200B..... Pt500A..... Pt500B.....	PT100 RTD Class A tolerance PT100 RTD Class B tolerance PT200 RTD Class A tolerance PT200 RTD Class B tolerance PT500 RTD Class A tolerance PT500 RTD Class B tolerance
No of Wires	2W..... 3W..... 4W.....	2 Wire 3 Wire 4 Wire
Sheath Dia	3..... 3.2..... 4.5..... 4.8.....	3 mm 3.2 mm 4.5 mm 4.8 mm
Sheath Material	316..... 316L..... 321..... INC 600.....	SS316 SS316L SS321 Inconel 600
Calibration Std	DIN43760..... IEC751.....	RTD calibration DIN 43760 RTD calibration IEC 60751
CJT details	CJT 101..... CJT 201..... CJT 301..... CJT 401..... CJT 501..... CJT 601..... CJT 701..... CJT 701A..... CJT 801..... CJT 901..... CJT 901A..... CJT 1001..... CJT 1002..... CJT 1003..... CJT 1004..... CJT 1005.....	Hot end JN with bare tails Crimp on pot and lead wire Braze pot & adj com fitting Threaded ISO pot Crimp on pot & 1 side fixed connector Crimp on pot & 2 side fixed connector Crimp on pot & 2 side sp ld connector Crimp on pot & 2 side sp ld conn+oilseal Miniature plug and jack Standard plug and jack Quick disconnect plugin conn Spring loaded TB OD=41 PCD=33 Spring loaded TB OD=55 PCD=46 SS base plate OD=41 PCD=33 SS base plate OD=55 PCD=46 Spring loaded TB FP
Lead Wire Type	1..... 2..... 3..... 4..... 5..... 6..... 7..... 8.....	PTFE Insulated PTFE with SS Overbraided PTFE with SS Flexhose PTFE + FG with SS Over Braid PTFE + FG with SS Flexhose PTFE with Overall PTFE PTFE + SS Flexhose + Overall PVC PTFE with FG
Lead Wire Length*	B.....	Lead Wire Length 'B' mm
Length of Insert*	X.....	Length Below Base Plate 'X' mm
Length of Element Along Pipe*	E.....	Element Length Along the Pipe 'E' mm
Length of Insert/probe*	RL.....	Length Of Insert/Probe RL mm
Mounting Threads T	T-1/4NPTM..... T-1/4NPSM..... T-1/4BSPM..... XX.....	1/4" NPT(M) 1/4" NPS(M) 1/4" BSP(M) XX (Refer table B)
Mounting Threads P	P-1/4NPTM..... P-1/4NPSM..... P-1/4BSPM.....	1/4" NPT(M) 1/4" NPS(M) 1/4" BSP(M) (Refer table B)
Options	Refer table a for comprehensive list of option/variations which pyro can offer along with our standard design	

*Please consult our marketing team for any non standard dimensions. Note: For field which are not applicable, select 'XX' or enter '0' whichever is mentioned.

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Ordering Example - THERMOCOUPLE

100#-MI-2-K-6-20AWG-SS316-IEC584-CJT201-1-150-XX-100-200-XX-1/2"NPT(M)-Op 15B,16B

Model	Suffix Codes	Description
100#TC	100# TC Insert/Probe
Insulation Type	MI..... BE.....	Mineral Insulated Ceramic Beaded
Number of Elements	1..... 2..... 3..... 4..... 6..... 9.....	Simplex Duplex Triplex Four Six Nine
Element Type	J..... K..... T..... E..... N..... R..... S..... B..... C.....	Iron Constantan Chromel Alumel Copper Constantan Chromel Constantan Nicrosil Nisil PTRH13%_PT PTRH10%_PT PTRH30%_PTRH6% TU 5% Rhenium – TU 26% Rhenium
Sheath Diameter of TC	6..... 8..... 9.5.....	6 mm 8 mm 9.5 mm (Refer table F)
Size of Conductor of TC	12AWG..... 19AWG..... 21AWG..... XX.....	2.05 mm 0.91186 mm 0.7239 mm XX (Refer table C)
Sheath Material for TC	316..... 316L..... 321.....	SS316 SS316L SS321 (Refer table D)
Calibration Standard	ANSIMC96.1..... DIN43710..... IEC60584.....	TC calibration as per ANSIMC 96.1 TC calibration as per DIN 43710 TC calibration as per IEC 60584
Details of CJT	CJT 101..... CJT 201..... CJT 301..... CJT 401..... CJT 501..... CJT 601..... CJT 701..... CJT 701A..... CJT 801..... CJT 901..... CJT 901A..... CJT 1001..... CJT 1002..... CJT 1003..... CJT 1004..... CJT 1005.....	Hot End Junction with Bare Tails Crimp on Pot and Lead Wire Brazed Pot & Adjustable Compression Fitting 12 Mm ISO Pot with Lead Wire Crimp on Pot & 1 Side Fixed Connector Crimp on Pot & 2 Side Fixed Connector Crimp on Pot & 2 Side Spring Loading Connector Crimp on Pot & 2 Side Spring Loading Connector+Oilseal Miniature Plug and Jack Standard Plug and Jack Quick Disconnect Plug in Connector Spring Loaded Terminal Block OD=41 PCD=33 (Weatherproof) Spring Loaded Terminal Block OD=55 PCD=46 SS Base Plate OD=41 PCD=33 SS Base Plate OD=55 PCD=46 OD Spring Loaded Terminal Block Od=41 PCD=33 (Flameproof)
Lead Wire TP	1..... 2..... 3..... 4..... 5..... 6..... 7..... 8.....	PTFE Insulated PTFE with SS Overbraided PTFE with SS Flexhose PTFE + FG with SS Over Braid PTFE + FG with SS Flexhose PTFE with Overall PTFE PTFE + SS Flexhose + Overall PVC PTFE with FG
Lead Wire Length*	B.....	Lead Wire Length 'B' mm
Length of Insertion*	X.....	'X' mm
Length of Element Along Pipe*	E.....	'E' mm
Length of Insert/probe*	RL.....	'RL' mm
Mounting Threads T	T-1/4NPTM..... T-1/4NPSM..... T-1/4BSPM..... XX.....	1/4" NPT(M) 1/4" NPS(M) 1/4" BSP(M) XX (Refer table B)
Mounting Threads P	P-1/4NPTM..... P-1/4NPSM..... XX.....	1/4" NPT(M) 1/4" NPS(M) XX (Refer table B)
Options	Refer table a for comprehensive list of option/variations which pyro can offer along with our standard design	

*Please consult our marketing team for any non standard dimensions. Note: For field which are not applicable, select 'XX' or enter '0' whichever is mentioned.

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