

RESISTANCE TEMPERATURE DEVICES (RTDS)

#1	DESCRIPTION				
3	RTD				
#2	ELEMENT TYPE [3-4, 9, 10, 11, 15, 18, 22, 24]		100 Ω Platinum 0.00385 alpha (Ω/Ω°C) unless otherwise stated		
B	Resistor Accuracy at 0°C		Thermometer Class [pg. 3-18]	Resistor Class [pg. 3-18]	
E	± 0.30°C (Competitor's Std)		B	≥ F 0.3	
P*	± 0.15°C (Standard)		A	≥ F 0.15	
S*	± 0.06°C		AA	≥ 1/2 F 0.1	
N	± 0.03°C (Best Accuracy)		1/4 A	≥ 1/10 W 0.3	
M	± 0.74°C (120 Ω Nickel α=0.00672)		Non-Standard	Non-Standard	
X	± 0.30°C (1000 Ω)		B	≥ F 0.3	
X	Other, specify [3-22]		--	--	
#3	ELEMENT CONSTRUCTION [4]				
S	Single	Standard construction	SV	Single	High vibration construction
D	Dual	Standard construction	DV	Dual	High vibration construction
J	Single	Swaged construction			
K	Dual	Swaged construction			
X	Other, specify		Note: Use swaged for high temperature, bendability, and/or longer than 90".		
#4	TUBE DIAMETER MUST CHOOSE 1		TIP CONSTRUCTION [1-13] MUST CHOOSE 1		
P	1/2" (.500")	D	1/8" (.125")	N	Normal, closed tip (Standard)
A	3/8" (.375")	X	Other, specify	K	Pointed tip, 45°
Y	5/16" (.313")	Z	N/A	M	Weld pad
B	1/4" (.250")			O	Weld pad, removable
R	6mm (.236")			R2	Gas/Air, exposed
C	3/16" (.188")			W*	Enlarged tip
				Y2	Reduced tip
				X	Other specify
* Provide length and enlarged diameter description when selecting this option.					

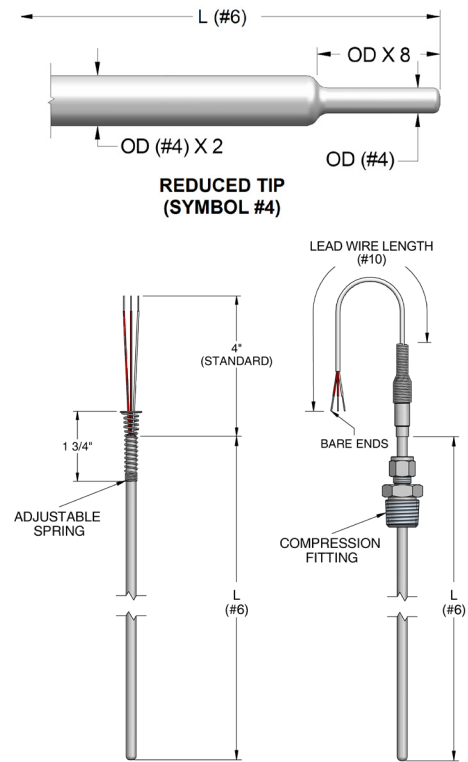
[] Brackets indicate page numbers where additional helpful information can be found in our technical catalog. Now available online at www.JMS-SE.com/TechnicalCatalog

#5	TUBE MATERIAL [3-11, 3-13]				
K	316 stainless steel		C	Teflon coated, stainless steel	
L	316L stainless steel		S	Titanium	
M	I-600 (Use if symbol #7 >500°F)		Q	Hastelloy C-276	
X	Other, specify				

#6	LENGTH (L) (See illustrations on pages 3-1 and 3-2 for "L" dimension)				
"	Immersion length in inches (lengths greater than 90" may be coiled for shipment)				

#7	MAX TEMPERATURE AT WHICH TIP WILL BE EXPOSED				
A	<0°C (32°F) Cryogenic = 5 Kapton				
B	<200°C (392°F) = 3 Teflon*				
C	<288°C (550°F) = 5 Kapton*				
D	<350°C (662°F) = 1 Fiberglass*				
E	<660°C (1220°F) = 4 High temperature fiberglass*				
*If no transition (Z) is in symbol 13, we recommend these corresponding selections for primary wire insulation on hollow tube sensors.					

NEW Skip to page 1-3 to complete selection #8 if your sensor requires a nipple and/or union extension.



#8	STANDARD INDUSTRIAL ATTACHING DEVICE [1-3, 6-13]				
X	Other, specify				
Z	N/A		No attaching device		
G	Single thread (process)		Welded design		
F	Single thread (reversed)				
W	Double threaded				
H*	SS w/ SS ferrule		Compression design		
I*	SS w/ Teflon ferrule				
J*	SS w/ Lava ferrule				
K*	SS w/ Nylon ferrule				
L*	Brass w/ Brass ferrule				
			* For double threaded use a 2 suffix along with your selection. Example: H2		
D	Single threaded (process)		Spring-loaded design		
C	Double threaded w/ oil seal				
A	Double w/ threaded retainer				
E	Adjustable spring				
S	Double threaded (most common)				
B	Double threaded bayonet				
BS	Double threaded bayonet w/ oil seal				
BD	Single threaded bayonet				
BDS	Single threaded bayonet w/ oil seal				
Note: High nickel proprietary spring material is rated to 1000°F (for 1/4" Ø sensors)					

Note: L is the overall length of the sensor to the transition, wire, plug, head, or fixed attaching device. L excludes non-fixed attaching devices.

3	E	S	BN	K	12"	B	S
							OR →
							S
							{ U N 6" H 1 }

SEE PAGE 1-3

RESISTANCE TEMPERATURE DEVICES (RTDS)

#9	PROCESS CONNECTION SIZE & TYPE [3]		
L	1/8" NPT	O	3/4" NPT
M	1/4" NPT	X	Other, specify
A	3/8" NPT	Z	N/A
P	1/2" NPT (Standard)		

Note: Threaded bushing may be used for sizes larger than 1/2"

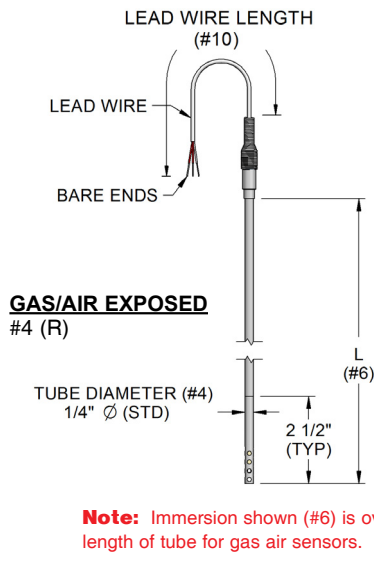
#10	LEAD WIRE TYPE & LENGTH IN INCHES [see section 7]		
1"	Fiberglass braid	X"	Other, specify
3"	Teflon (Standard)	Z"	N/A
4"	High temperature fiberglass braid		
5"	Kapton (Standard for Cryogenic)		

Note: All wire in tubes > 1/8" OD will be 24 AWG. Smaller tubes will have a max. of 28 AWG. If no transition or armor is specified, wire may be fragile. JMS standard lead wire for RTDs is stranded plated copper.

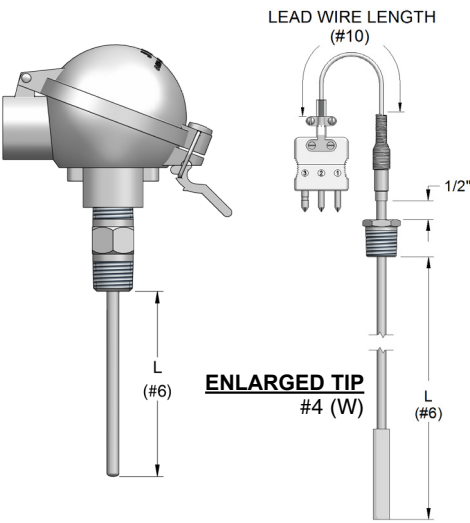
#11	ARMOR OR HEAT SHRINK/JACKET [7-7]		
A	SS flex armor (Standard)	G	Heat shrink/sleeving
B	SS flex armor Teflon coated white	H	Jacket to match primary insulation
C	SS flex armor Teflon coated black	J	Aluminum Mylar shielded and jacketed to match primary insulation
D	1/8" ID SS flex armor	Z	N/A
F	SS overbraid	X	Other, specify

#12	WIRE CONFIGURATION [17, 18]		
T	2 Wire	Note: Use a double symbol for 2 separate multiconductor lead wires, if dual elements. For example, TT.	
Y	3 Wire		
W	4 Wire		

#13	TYPE OF TRANSITION [14]		
H	Heat shrink	Note: For high humidity/moisture environments (≤ 500°F), put a 2 after your selection. For example, R2.	
S	Size on size		
T	3/8" OD	Note: For high temperatures at the transition area (500°F to 1200°F), put a 3 after your selection. For example, T3.	
R	1/4" OD		
Q	Cuttable (Std construction only) [3-12]		
X	Other, specify		
Z	No transition		



#14	COLD END TERMINATION [Additional options see Pg 1-7] Choose all that apply			
Connectors		Heads [6-1] Visit www.JMS-SE.com/headspecs		
B	Miniature plug	Exp. Proof	I	Aluminum, NEMA 4X, FM, CSA, IP68 (6IA)
C	Standard plug		J	316 SS, NEMA 4X, FM, CSA, IP68 (6ISS)
F	High temp plug (< 800°F)	Gen. Purpose	P	Aluminum, NEMA 4X, FM, CSA, ATEX, IECEX, IP68 (6IAIEC)
WM	Microphone style plug		U	316 SS, NEMA 4X, FM, ATEX, IECEX, IP68 (6ISSATEX)
D	Miniature jack		L	Aluminum w/ hinged cover (6L)
E	Standard jack		M	Aluminum w/ screw cover & chain (6M)
G	High temp jack (< 800°F)		N	Cast Iron w/ screw cover (6N)
WF	Microphone style jack		Q	Black plastic (6Q)
V	Water resistant plug		R	Aluminum high dome w/ hinged cover (6R)
Y	M12 Water resistant plug		SS	316 SS w/ screw cover & chain (6SS)

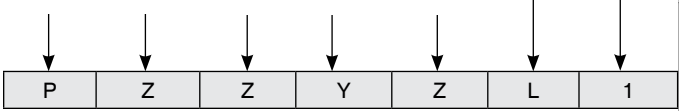


Transmitters		Transmitter & Housing [See Pg. 8-2]	
8H	Isolated transmitter	8PS	Indicating with SS housing
8N	Non-isolated transmitter	8PA	Indicating with aluminum housing
8I	Hart Protocol	Other	
8E	Intrinsically safe	A	Bare ends
8D	HART / Intrinsically safe	X	Other, specify
8M	Integral transmitter (see page 3-5)		

Note: Add span range after transmitter selection. Example: 8H(0-200C).

#15	OPTIONS (Use only if applicable)		
1	Stainless steel tag	6C*	Premium calibration report.
2	Plastic tag		Callendar-Van Dusen coefficients will be provided for all CE marking [page XV]
3	Paper tag		
4	Laser etch on probe		
5	Calibrate at specified point(s)		
	Corrections data provided for each point.		
6*	Premium calibration report. Corrections data will be provided for all	7	Guide 17025 calibration
		8	MTR (Sheath, tubing, tip)
		M	Calibration tag
		T	

*Must specify increments & range (Example: 0 to 300°F, 10° increments)



COMPLETE PART NUMBER EXAMPLES

-with nipple-union-spring-loaded fitting extension assembly:
3ESBNK12"BS[UN6H]PZZYZL1

-without extension assembly:
3ESBNK12"BSPZZYZL1