

PLASTICS SENSORS

BAYONET TEMPERATURE SENSORS

Bayonet style thermocouples are the most common in plastics processing. JMS has adapted this useful and safe design to other industrial sensors to utilize the best features of both.

Our standard design and most commonly used is the Adjustable Bayonet attachment device developed by JMS in 1982. This design incorporates a plated brass cap with a stainless steel spring. The spring fits around the appropriately sized sensor and remains in position until such a time as the user adjusts it. This enables the same sensor to be used for many different applications in the same facility. It also makes for lower inventory levels which your accountant will love.

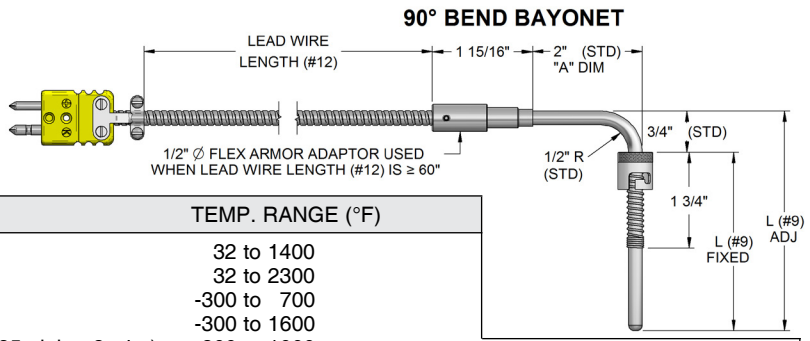
The other attachment devices we make for your sensors are standard in the industry. For those "Old Dogs" who refuse to try something innovative, we still offer the fixed bayonet design. The length of this sensor cannot be changed and will only go in the hole it was specifically built to fit.

#1	DESCRIPTION	
2	Plastics sensors	
#2	DESIGN [2-8]	
M	MgO insulated (swaged sheath)	
H	Hollow tube	
#3	TYPE	TEMP. RANGE (°F)
J	Iron/Constantan	32 to 1400
K	Chromel/Alumel	32 to 2300
T	Copper/Constantan	-300 to 700
E	Chromel/Constantan	-300 to 1600
2	100Ω Platinum RTD (0.00385 alpha, 2 wire)	-200 to 1000
3	100Ω Platinum RTD (0.00385 alpha, 3 wire)	-200 to 1000
4	100Ω Platinum RTD (0.00385 alpha, 4 wire)	-200 to 1000
X	Other, specify	
#4	OUTSIDE DIAMETER	
C	3/16" (.188")	X Other, specify
D	1/8" (.125") Note: 1/8" required for nozzle melt style	Z N/A (non-immersion nozzle)
B	1/4" (.250")	
R	6mm (.236")	Note: 316 SS standard sheath and tube material.
#5	LIMITS OF ERROR	ELEMENT CONSTRUCTION
1	Standard	Single
2	Standard	Dual
3	Special	Single
4	Special	Dual
X	Other, specify	
#6	CONSTRUCTION	
S	Straight Note: 1/2" radius bends are standard. Other radii may be specified but they may deform the diameter of the tube at the bend.	
4	45° bend Larger radii may be required for larger diameters or coated sensors.	
9	90° bend	
X	Specify angle of bend and "A" dimension (see illustrations above)	
#7	MAX TEMPERATURE AT WHICH TIP WILL BE EXPOSED	
A	<0°C (32°F) = Kapton*	*If no transition (Z) is in symbol 13, we recommend these corresponding selections for primary wire insulation on hollow tube sensors.
B	<200°C (392°F) = Teflon*	
C	<288°C (550°F) = Kapton*	
D	<482°C (900°F) = Fiberglass*	
E	<705°C (1300°F)	
F	>705°C (1300°F)	
#8	MEASURING JUNCTION [9]	
G	Grounded	
U	Ungrounded common (RTDs are always ungrounded)	
I	Isolated	
E	Exposed	
X	Other, specify	
#9	LENGTH (L)	
"	Length in inches	
	Note: See appropriate drawing on page 2-1 & 2-2 before you specify the immersion length. Use 0" for non-immersion nozzle design.	

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

Note: When LENGTH (Option #9) exceeds 90", the probe may be coiled for shipment.

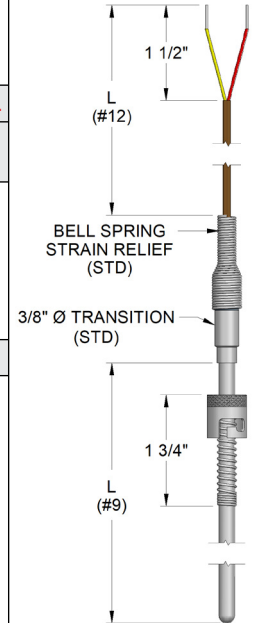
2 M K C 1 9 D G 3"



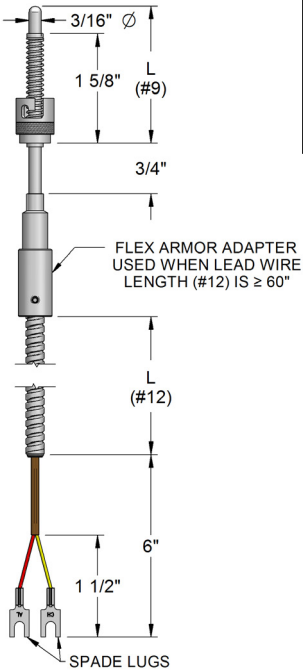
PLASTICS SENSORS

#10	ATTACHING DEVICES (see illustrations below)		
J*	Adjustable bayonet (Standard)	X	Other, specify
F	Fixed bayonet	Z	N/A
P*	Brass compression fitting (1/8" NPT)	*Non-fixed fittings do not affect the immersion length(#9).	
N	Non-immersion nozzle fixed (1/4-28 x 3/8" long thread)		
R	Non-immersion nozzle rotating (1/4-28 x 3/8" long thread)		
M*	Nozzle melt rotating (3/8-24 x 15/16" long thread)		
#11	ADAPTER TYPE *1/8" NPT & 3/8-24 UNF adapters are used with .125" Ø and .188" Ø sensors.		
1/8" NPT	3/8-24 UNF	NICKEL PLATED STEEL SLOT HEAD MOUNTING ADAPTER (FOR BAYONET ONLY)	
Z	Z	No adapter required	
A	E	7/8" overall length	
B	F	1 1/2" overall length	
C	G	2 1/2" overall length	
D	J	3 1/2" overall length	
X	X	Other, specify	
Note: More adapter options on page 2-5.			
#12	LEAD WIRE TYPE & LENGTH IN INCHES		
Z	No lead wires		Note: 20 AWG solid wire is standard for thermocouples and 24 AWG stranded wire is standard for RTDs.
1"	Fiberglass braid		
3"	FEP Teflon		Note: 24 AWG wire or smaller may be used if necessary.
5"	Kapton		
6"	Fiberglass braid/flex armor overall		
7"	Teflon/flex armor overall		
8"	Fiberglass braid/stainless steel overbraid		
S9"	Teflon ultra-premium, Type T only, 22 AWG, stranded		
X"	Other, specify		

ADJUSTABLE BAYONET
(Top of cap is usually positioned 3/4" from transition at factory)



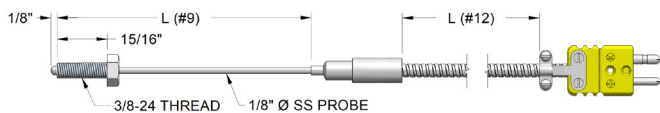
FIXED BAYONET



#13	TYPE OF TRANSITION [1-16]		
H	Heat shrink	Note: For high humidity/moisture environments (≤500° F), put a 2 after your selection.	
S	Size on size		
T	3/8" OD (Standard)	Note: For high temperature at the transition area (>500° F), put a 3 after your selection. (May not comply with ASTM Insulation Resistance (IR) test)	
R	1/4" OD		
X	Other,specify	Note: When Z (no transition) is specified for a hollow tube sensor, the extension lead is crimped to the tube.	
Z	No transition		
Q	Cutttable design (No crimp at end of tube)		

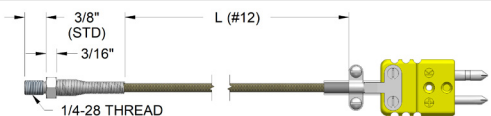
#14	COLD END TERMINATION [Add'l options see Pg 1-7] CHOOSE AS MANY AS APPLICABLE		
Connectors		Heads	
B	Miniature plug (6A1B2)	I	Explosion proof aluminum, NEMA 4X, FM, CSA, IP68 (6IA)
C	Standard plug (6A1C2)	L	Aluminum w/ hinged cover (6L)
F	High temperature plug (< 800° F)	M	Aluminum w/ screw cover & chain(6M)
WM	Microphone style plug (6DA)	N	Cast iron w/ screw cover (6N)
V	Hermetic connector plug (6DC)	Q	Black plastic (6Q)
D	Miniature jack	R	Aluminum high dome, hinged cover (6R)
E	Standard jack	WP	White plastic head, NEMA 4 (WP)
G	High temperature jack (< 800° F)	Other	
WF	Microphone style jack (6DA)	A	Bare ends
		K	Spade lugs (6SL)
		O	Open terminal block (6B4)
		X	Other, specify

#15	TAGGING AND CALIBRATION OPTIONS (USE ONLY IF APPLICABLE)		
See page 1-2 #14 for ordering selections.			



NOZZLE MELT

Example part number: 2MKD1SDG12"MZ6(60")TC



NON-IMMERSION NOZZLE

Example part number: 2HKZ1SDU0"NZ1(60")ZC

J	A	6 (72")	T	C	1
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