HOW TO SPECIFY PMI CUSTOM PLATINUM RESISTANCE TEMPERATURE SENSORS

Sheath Diameter
5 .125"
6 .188"
7 .250"
8 .313"
9 .375'
Add prefix D if dual element required
316SS standard sheath material

Type of Assembly
G General purpose stem sensitive
S Spring loaded for standard head
E Spring loaded for explosion proof head
X Special as specified

Imersion Length
Specify in inches
~~maximum~~ MIN length is 1 inch

Fitting if Required
1 Hex nipple
2 Hex bushing (Process connection)
3 Hex bushing (Head connection)
4 Adjustable stainless
5 Hex nipple oil seal
6 Hex nipple spring loaded
7 Bayonet spring loaded

NPT Code for Fitting
Must be prefixed by fitting code
A 1/8"
B 1/4"
C 1/2"
D 3/4"
E 1/4" x 1/2"
F 3/4" x 1/2"
G 1" x 1/2"

D7-D-G-S-12.75-D-1C-B

Temperature Coefficient
D - 385 Platinum 100 ohms at 0°C (DIN43760)
A - 3916 Platinum 100 ohms at 0°C (JISC1604)
N - Nickel - 120 ohms at 0°C
C - Copper - 10 ohms at 25°C
X - Other as specified
Standard accuracy of 1/4% of temperature
Improved accuracy available upon request

Temperature Range of Assembly
S = -350 + 500 °F
H = -320 + 800 °F
M = -320 + 1000 °F
S Supplied with teflon leads
H Supplied with fiberglass leads
M MGO construction for high temperature and vibration prone areas

Number of Leads
A 2-short runs
B 3-minimum recommended
C 4-high accuracy
D 6-dual 3 wire
E 8-dual 4 wire
Note: Standard lead length 6"
For longer leads specify length required

Cold End Termination
A None required
B Standard cast iron head
C Standard cast aluminum head
D Explosion proof head
E Miniature polypropylene
F Assembly with flexible armor leads
G Assembly with SS overbraid leads
H 3 pin plug
X Special as specified

Choose sheath diameter & number of elements in tube
Specify sensor coefficient
Choose type of assembly
Select temperature range
Specify immersion in inches
Lead wire configuration
Fitting if required
Cold end termination

D7-D-G-S-12.75-D-1C-B

D7	D	G	S	12.75	D	1C	B
¼" dual	.00385	General-purpose	– 320 + 500° F	12¾"	Dual 3 wire	Hex nipple ½" NPT	Cast iron Head

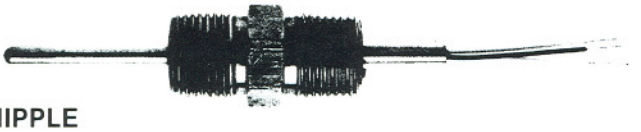
Type of Assembly

Type G GENERAL PURPOSE

Type S SPRING LOADED FOR STANDARD HEAD

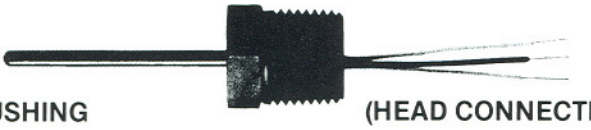
Type E SPRING LOADED FOR EXPLOSION PROOF HEAD

Type of Fitting



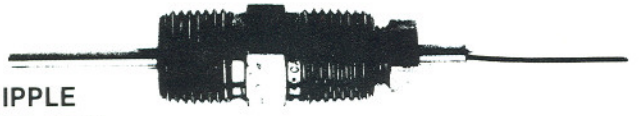
1 HEX NIPPLE

2 HEX BUSHING (PROCESS CONNECTION)

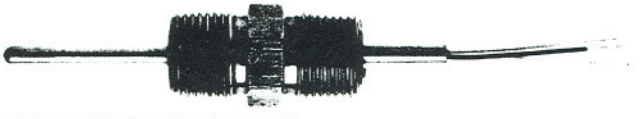


3 HEX BUSHING (HEAD CONNECTION)

4 ADJUSTABLE STAINLESS



5 HEX NIPPLE WITH OIL SEAL

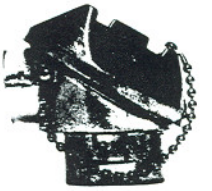


6 HEX NIPPLE SPRING LOADED

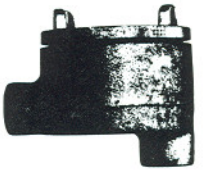
7 BAYONET SPRING LOADED

COLD-END TERMINATIONS

B STANDARD CAST IRON HEAD



C STANDARD CAST ALUMINUM HEAD

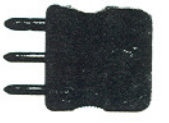


D EXPLOSION PROOF HEAD

E MINIATURE POLYPROPYLENE

F ASSEMBLY WITH FLEXIBLE ARMOR LEADS

G ASSEMBLY WITH SS OVERBRAID LEADS



H 3 PIN PLUG

TEMPERATURE-RESISTANCE TABLES

Curve A

Temperature Coefficient of Resistance .00392 ohms/ohm/°C

°C	0	– 10	– 20	– 30	– 40	– 50	– 60	– 70	– 80	– 90	– 100
0	100.00	96.02	92.03	88.17	84.00	79.97	75.93	71.87	67.79	63.70	59.79

°C	0	+ 10	+ 20	+ 30	+ 40	+ 50	+ 60	+ 70	+ 80	+ 90	+ 100
0	100.00	103.97	107.93	111.87	115.81	119.73	123.64	127.54	131.42	135.30	139.16
+ 100	139.16	143.01	146.85	150.68	154.49	158.30	162.09	165.87	169.64	173.40	177.14
+ 200	177.14	180.88	184.60	188.31	192.01	195.70	199.37	203.03	206.69	210.33	213.95
+ 300	213.95	217.57	221.17	224.77	228.35	231.92	235.47	239.02	242.55	246.08	249.59
+ 400	249.59	253.09	256.57	260.05	263.51	266.96	270.40	273.83	277.25	280.65	284.04
+ 500	284.04	287.43	290.79	294.15	297.50	300.83	304.15	307.47	310.76	314.05	317.33
+ 600	317.33	320.59	323.84	327.08							

°F	0	– 20	– 40	– 60	– 80	– 100	– 120	– 140	– 160	– 180	– 200
0	92.93	88.47	84.00	79.52	75.04	70.52	66.00	61.40	56.79	52.17	47.53

°F	0	+ 20	+ 40	+ 60	+ 80	+ 100	+ 120	+ 140	+ 160	+ 180	+ 200
0	92.93	97.35	101.77	106.17	110.56	114.93	119.29	123.64	127.97	132.28	136.59
+ 200	136.59	140.87	145.16	149.40	153.65	157.88	162.09	166.29	170.48	174.65	178.81
+ 400	178.81	182.95	187.08	191.20	195.30	199.37	203.44	207.50	211.54	215.57	219.58
+ 600	219.58	223.58	227.56	231.52	235.48	239.44	243.66	247.27	251.17	255.06	258.92
+ 800	258.92	262.78	266.62	270.44	274.25	278.05	281.85	285.56	289.36	293.06	296.76
+ 1000	296.76	300.56	304.16	307.82	311.48						

Curve D

Temperature Coefficient of Resistance .00385 ohms/ohm/°C

°C	0	– 10	– 20	– 30	– 40	– 50	– 60	– 70	– 80	– 90	– 100
0	100.00	96.09	92.16	88.22	84.27	80.31	76.33	72.33	68.32	64.30	60.25

°C	0	+ 10	+ 20	+ 30	+ 40	+ 50	+ 60	+ 70	+ 80	+ 90	+ 100
0	100.00	103.90	107.79	111.67	115.54	119.39	123.24	127.07	130.89	134.70	138.50
100	138.50	142.29	146.06	149.82	153.58	157.32	161.05	164.76	168.47	172.16	175.84
200	175.84	179.51	183.17	186.82	190.46	194.08	197.69	201.30	204.89	208.46	212.03
300	212.03	215.59	219.13	222.66	226.18	229.69	233.19	236.67	240.15	243.61	247.06
400	247.06	250.50	253.93	257.34	260.75	264.14	267.52	270.89	274.25	277.60	280.93
500	280.93	284.26	287.57	290.87	294.16	297.44	300.70	303.96	307.20	310.43	313.65
600	313.65	316.86	320.05	323.24	326.41	329.57	332.72	335.86	338.99	342.10	345.21

°F	0	– 20	– 40	– 60	– 80	– 100	– 120	– 140	– 160	– 180	– 200
0	93.01	88.61	84.21	79.81	75.39	70.95	66.49	62.00	57.49	52.95	48.30

°F	0	+ 20	+ 40	+ 60	+ 80	+ 100	+ 120	+ 140	+ 160	+ 180	+ 200
0	93.01	97.38	101.74	106.06	110.38	114.68	118.97	123.24	127.50	131.74	135.97
200	135.97	140.18	144.38	148.57	152.74	156.90	161.04	165.17	169.29	173.39	177.48
400	177.48	181.55	185.61	189.65	193.68	197.69	201.69	205.68	209.65	213.61	217.55
600	217.55	221.48	225.40	229.30	233.19	237.06	240.92	244.76	248.59	252.40	256.20
800	256.20	259.99	263.76	267.52	271.27	274.99	278.71	282.41	286.10	289.77	293.43
1000	293.43	297.07	300.70	304.32	307.92	311.50	315.07				

Special Sensors
Changes in material and size are normally available. Consult factory for assistance.

PRECISION MEASUREMENTS

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