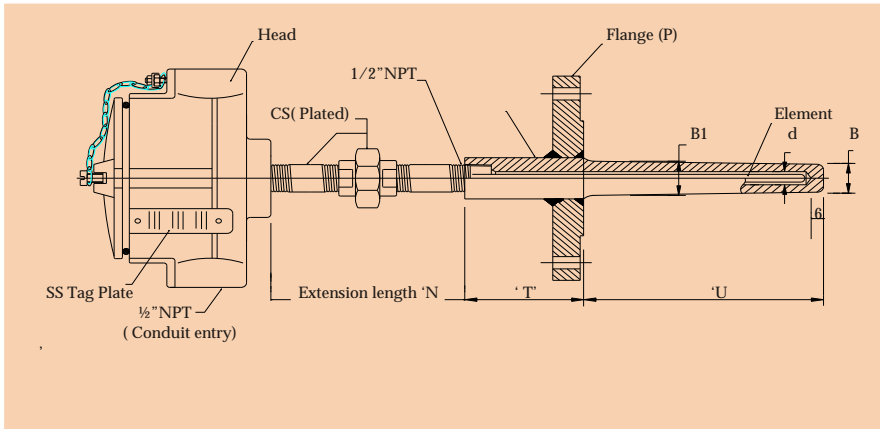


400 Series
*Thermocouple & Resistance
Thermometer Assemblies with*



- A Flanged tapered Thermowell.
- Flameproof or Weatherproof execution in SS316 or Aluminum.
- Safe design as per ASME PTC19.3.
- Available with "in-head" 2-wire Temperature Transmitter.

Msmi Thermocouple or Resistance Thermometer Sensor fitted into a terminal Head, and provided with head extension and drilled bar stock Flanged Thermowell would form a typical complete assembly ready for use in the application designed for. The design of the complete assembly depends on various parameters such as, temperature, dynamic pressure, flow velocity, abrasive nature of process fluid, intricate nature of installation and insertion lengths required.

High Velocity caollar can be provided to reduce the suspended length of thermowell and to meet ASME PTC19.3 requirement. Thermowells are available in standard AISI 300 series Stainless Steel as well as exhotic materials such as Incoloy 800, Inconel 600, Monel 400, Hastelloy alloys C and B and flanges in ASTM grades A105, A182 and A350 and in sizes 3/4" to 2" (Dn20 to DN50).

The standard execution as shown in this leaflet is with plated CS extension and Aluminum head with conduit entry of 1/2"NPT and ungrounded Junction for Thermocouples unless specified otherwise.

Code	No of Elements
1	Simplex
2	Duplex
3	Triplex

Code	Options
0	None
1	Head in 304SS
2	Head in 316SS
3	Extension in 304SS
4	Other Conduit entry
6	In Head Transmitter
7	Brass Cable Gland
8	SS Cable Gland
10	Special requirement

Code	Elements
J	Iron-Constantan
K	Chromel-Alumel
T	Copper-Constantan
E	Chromel-Constantan
N	Nicrosil-Nisil
R	PtRh 13%-Pt
S	PtRh 10%-Pt
B	PtRh30%-PtRh6%
Pt	Pt100 RTD

Code	Process Conn P	B1	B
	3/4"ANSI or DN20	17	12.5
	1"ANSI or DN 25	22	16
	1.5"ANSI or DN 40	25	19
	2"ANSI or DN 50	28	25

Other sizes and dimensions on request

Code	Well Extension
T	Define

Code	Well Insertion
U	Define

Code	Well Material
316	316SS
304	304SS
321	321SS
446	446SS

Code	Sheath Dia 'd'
6	6mm 7.0mm
8	8mm 8.0mm
10	10mm 10.0mm

Code	Sheath Material
316	316SS
321	321SS
Inc	Inconel 600

Code	Head Type
D	Weatherproof
F	Flameproof IIA/IIB
C	Flameproof IIC
JB	Junction Box

Code	No of entries
1	One entry
2	Two entries

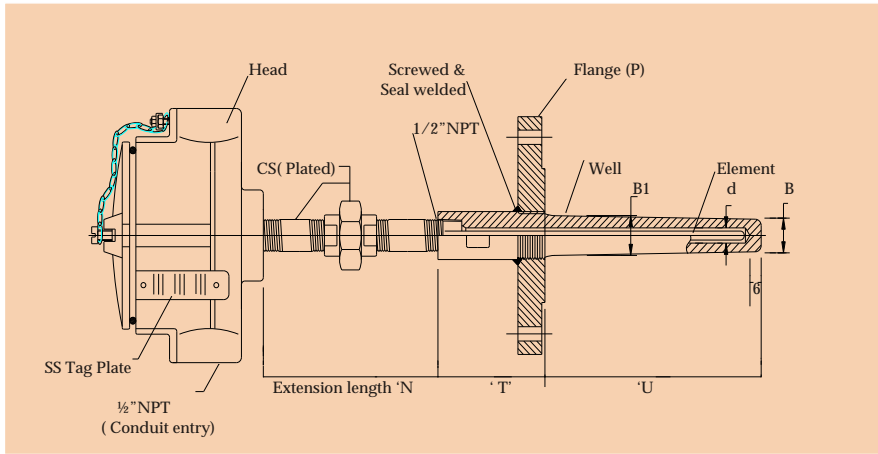
Code	Flange Material
A105	ASTMA105 (CS)
F316	A182 F316
F304	A182 F304
F321	A182 F321
F5	A182 F5
Lf2	A350 Lf2

Other materials also available. Define grade

ORDERING EXAMPLE
400 SERIES 1-K-6-316-D-1-316-F316-U=150-T=70-1"150#RF-Op0

410 Series Thermocouple & Resistance Thermometer Assemblies with

- ENI Standard 0165.00 Flanged Thermowell.
- Flameproof or Weatherproof execution in SS316 or Aluminum.
- Safe design as per ASME PTC19.3.
- Available with "in-head" 2-wire Temperature Transmitter.



MsMi Thermocouple or Resistance Thermometer Sensor fitted into a terminal Head, and provided with head extension and drilled bar stock Thermowell as per ENI standard 0165.00, is ideally suited for use in Fertiliser plants, Refineries and Petrochemical complexes.

The assembly can be supplied with 316SS terminal head and nipple-union-nipple in 316SS as a standard feature in weatherproof or flameproof execution. This will resist atmospheric corrosion and help in carrying out periodic maintenance with more ease.

Thermowells are available in standard AISI 300 series Stainless Steel as well as exotic materials such as Incoloy 800, Inconel 600, Monel 400, Hastelloy alloys C and B and flanges in ASTM grades A105, A182 and A350 and in sizes 3/4" to 2" (Dn20 to Dn50).

The standard execution as shown in this leaflet is with plated CS extension and Aluminum head with conduit entry of 1/2"NPT and ungrounded Junction for Thermocouples.

Code	No of Elements
1	Simplex
2	Duplex
3	Triplex

Code	Options
0	None
1	Head in 304SS
2	Head in 316SS
3	Extension in 304SS
4	Other Conduit entry
6	In Head Transmitter
7	Brass Cable Gland
8	SS Cable Gland
10	Special requirement

Code	Elements
J	Iron-Constantan
K	Chromel-Alumel
T	Copper-Constantan
E	Chromel-Constantan
N	Nicrosil-Nisil
R	PtRh 13%-Pt
S	PtRh 10%-Pt
B	PtRh30%-PtRh6%
Pt	Pt100 RTD

Code	Process Conn P	B1	B
	3/4"ANSI or DN20	17	12.5
	1"ANSI or DN 25	22	16
	1.5"ANSI or DN 40	25	19
	2"ANSI or DN 50	28	25

Other sizes and dimensions on request

Code	Well Extension
T	Define

Code	Well Insertion
U	Define

Code	Well Material
316	316SS
304	304SS
321	321SS
446	446SS

Code	Sheath Dia 'd'
6	6mm 7.0mm
8	8mm 8.0mm
10	10mm 10.0mm

Code	Sheath Material
316	316SS
321	321SS
Inc	Inconel 600

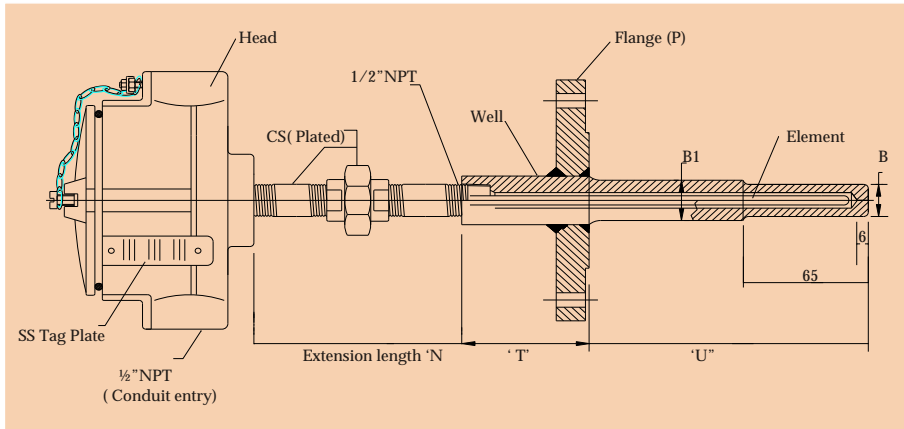
Code	Head Type
D	Weatherproof
F	Flameproof IIA/IIB
C	Flameproof IIC
JB	Junction Box

Code	Flange Material
A105	ASTMA105 (CS)
F316	A182 F316
F304	A182 F304
F321	A182 F321
F5	A182 F5
Lf2	A350 Lf2

Other materials also available. Define grade

Code	No of entries
1	One entry
2	Two entries

ORDERING EXAMPLE
410 SERIES 1-K-6-316-D-1-316-F316-U=150-T=70-1"150#RF-Op4



420 Series

Thermocouple & Resistance Thermometer Assemblies with

- A Flanged stepped shank or straight and taper shank well.
- Flameproof or Weatherproof execution in SS316 or Aluminum.
- Safe design as per ASME PTC19.3.
- Available with "in-head" 2-wire Temperature Transmitter.

MsMi Thermocouple or Resistance Thermometer Sensor fitted into a terminal Head, and provided with head extension and drilled bar stock Thermowell would form a typical complete assembly ready for use in the application designed for.

Heavy Velocity collar can be provided to reduce the suspended length of thermowell and to meet ASME PTC19.3 requirement.

Thermowells are available in standard AISI 300 series Stainless Steel as well as exotic materials such as Incoloy 800, Inconel 600, Monel 400, Hastelloy alloys C and B and flanges in ASTM grades A105, A182 and A350 and in sizes 3/4" to 2" (Dn20 to Dn50).

The standard execution as shown in this leaflet is with plated CS extension and Aluminum head with conduit entry of 1/2" NPT and stepped shank Thermowell. The Thermocouple junctions are ungrounded unless otherwise specified.

Code	No of Elements
1	Simplex
2	Duplex
3	Triplex

Code	Elements
J	Iron-Constantan
K	Chromel-Alumel
T	Copper-Constantan
E	Chromel-Constantan
N	Nicrosil-Nisil
R	PtRh 13%-Pt
S	PtRh 10%-Pt
B	PtRh30%-PtRh6%
Pt	Pt100 RTD

Code	Sheath Dia	'd'
6	6mm	7.0mm
8	8mm	8.0mm
10	10mm	10.0mm

Code	Sheath Material
316	316SS
321	321SS
Inc	Inconel 600

Code	Head Type
D	Weatherproof
F	Flameproof IIA/IIB
C	Flameproof IIC
JB	Junction Box

Code	No of entries
1	One entry
2	Two entries

Code	Options
0	None
1	Head in 304SS
2	Head in 316SS
3	Extension in 304SS
4	Other Conduit entry
6	In Head Transmitter
7	Brass Cable Gland
8	SS Cable Gland
10	Special requirement

Process Conn P	B1	B
3/4"ANSI or DN20	17	12.5
1"ANSI or DN 25	22	16
1.5"ANSI or DN 40	25	19
2"ANSI or DN 50	28	25

Other sizes and dimensions on request

Code	Well Extension
T	Define

Code	Well Insertion
U	Define

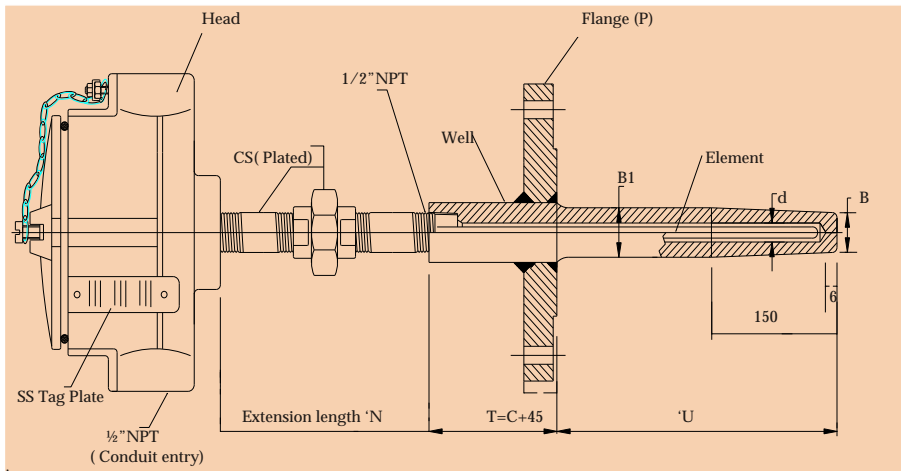
Code	Flange Material
A105	ASTMA105 (CS)
F316	A182 F316
F304	A182 F304
F321	A182 F321
F5	A182 F5
LF2	A350 LF2

Other materials also available. Define grade

Code	Well Material
316	316SS
304	304SS
321	321SS
446	446SS

ORDERING EXAMPLE

420 SERIES 1-K-6-316-D-1-316-F316-U=150-T=70-1"150#RF-Op4



430 Series

Thermocouple & Resistance Thermometer Assemblies with

- A Flanged straight and tapered shank Thermowell.
- Flameproof or Weatherproof execution in SS316 or Aluminum.
- Safe design as per ASME PTC19.3.
- Available with “in-head” 2-wire Temperature Transmitter.

The Thermocouple or Resistance Thermometer Sensor illustrated in this leaflet is a typical design specified by M/s Engineers India Ltd. A drilled bar stock Thermowell is welded to suitably drilled blind flange by employing a groove and fillet TIG weld joint. For pressure rating 900# and above a full penetration weld is carried out.

Heavy Velocity collar can be provided to reduce the suspended length of thermowell and to meet ASME PTC19.3 requirement.

Thermowells are available in standard AISI 300 series Stainless Steel as well as exotic materials such as Incoloy 800, Inconel 600, Monel 400, Hastelloy alloys C and B and flanges in ASTM grades A105, A182 and A350 and in sizes 3/4" to 2" (Dn20 to Dn50).

The standard execution as shown in this leaflet is with plated CS extension and Aluminum head with conduit entry of 1/2" NPT and straight and tapered Thermowell. The Thermocouple junctions are ungrounded unless otherwise specified.

Code	No of Elements
1	Simplex
2	Duplex
3	Triplex

Code	Elements
J	Iron-Constantan
K	Chromel-Alumel
T	Copper-Constantan
E	Chromel-Constantan
N	Nicrosil-Nisil
R	PtRh 13%-Pt
S	PtRh 10%-Pt
B	PtRh30%-PtRh6%
Pt	Pt100 RTD

Code	Sheath Dia	'd'
6	6mm	7.0mm
8	8mm	8.0mm
10	10mm	10.0mm

Code	Sheath Material
316	316SS
321	321SS
Inc	Inconel 600

Code	Head Type
D	Weatherproof
F	Flameproof IIA/IIB
C	Flameproof IIC
JB	Junction Box

Code	No of entries
1	One entry
2	Two entries

Code	Options
0	None
1	Head in 304SS
2	Head in 316SS
3	Extension in 304SS
4	Other Conduit entry
6	In Head Transmitter
7	Brass Cable Gland
8	SS Cable Gland
10	Special requirement
11	Full penetration weld

Process Conn P	B1	B
3/4"ANSI or DN20	17	12.5
1"ANSI or DN 25	22	16
1.5"ANSI or DN 40	25	19
2"ANSI or DN 50	28	25

Other sizes and dimensions on request

Code	Well Extension
T	Define

Code	Well Insertion
U	Define

Code	Flange Material
A105	ASTMA105 (CS)
F316	A182 F316
F304	A182 F304
F321	A182 F321
F5	A182 F5
Lf2	A350 Lf2

Other materials also available. Define grade

Code	Well Material
316	316SS
304	304SS
321	321SS
446	446SS

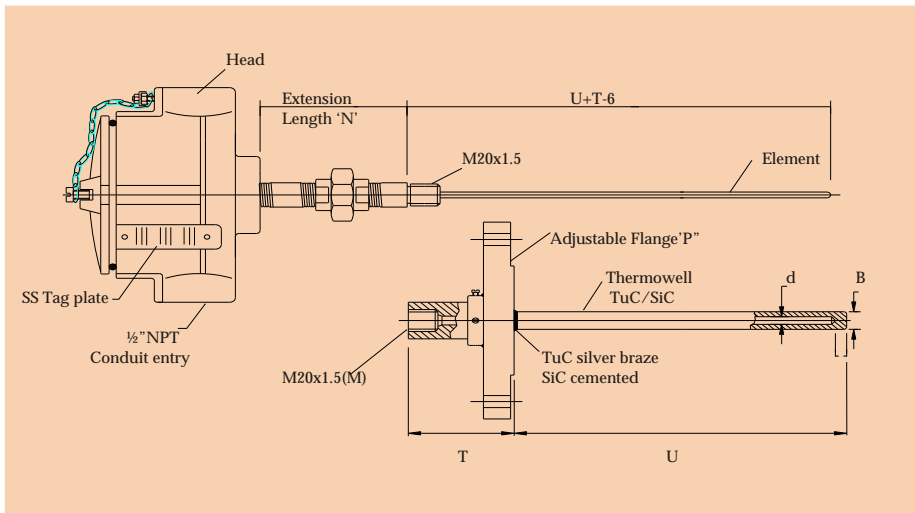
ORDERING EXAMPLE

430 SERIES 1-K-6-316-D-1-316-F316-U=150-T=70-1*150#RF-Op4

440 Series

Thermocouple & Resistance Thermometer Assemblies with

- Solid Sintered Tungsten Carbide Thermowell for mill Classifier Outlet.
- Recrystallized Silicon Carbide for use on high temperature and abrasive services.
- Weatherproof execution in SS316 or Aluminum.
- Available with "in-head" 2-wire Temperature Transmitter.



MsMi Thermocouple or Resistance Thermometer Sensor fitted into a terminal Head, and provided with head extension and solid sintered Tungsten carbide Thermowell would form typically, a complete assembly for use in Power Plants for highly abrasive services such as mill classifier outlet for temperature measurement of Coal + Air Mixture.

For use at relatively high temperatures we recommend re-crystallized Silicon Carbide, which also has a very high abrasion resistance characteristics. These are recommended for use in Flue gas application in power plants or for use on incinerators employed in modern day waste management systems of process plants. Standard well is available in diameter of 20mm; and is cemented into stainless steel bushing.

The standard execution as shown in this leaflet is with plated CS extension and Aluminum head with conduit entry of 1/2"NPT and well entry of M20x1.5 and ungrounded Thermocouple.

Code	No of Elements
1	Simplex
2	Duplex
3	Triplex

Code	Options
0	None
1	Head in 304SS
2	Head in 316SS
3	Extension in 304SS
4	Other Conduit entry
6	In Head Transmitter
7	Brass Cable Gland
8	SS Cable Gland
10	Special requirement

Code	Elements
J	Iron-Constantan
K	Chromel-Alumel
T	Copper-Constantan
E	Chromel-Constantan
N	Nicrosil-Nisil
R	PtRh 13%-Pt
S	PtRh 10%-Pt
B	PtRh30%-PtRh6%
Pt	Pt100 RTD

Code	Sheath Dia	'd
6	6mm	7.0mm
8	8mm	8.0mm

Code	Sheath Material
316	316SS
321	321SS
Inc	Inconel 600

Code	Head T ype
D	Weatherproof
F	Flameproof IIA/IIB
C	Flameproof IIC
JB	Junction Box

Code	No of entries
1	One entry
2	Two entries

Process Conn P	B1	B
1"ASA	7	16
1.25" ASA	7	16
1.5" ASA	7	16

Other sizes and dimensions are d=9, B=19
For SiC well d=10, B=20

Define Flange Rating and facing

Code	Head Extension
N	Define

Code	W ell Extension
T	Define

Code	W ell Insertion
U	Define

Code	Flange Material
A105	ASTMA105 (CS)
F316	ASTM A182 F316

Code	W ell Material
TuC	Tungsten Carbide
SiC	Silicon Carbide

ORDERING EXAMPLE

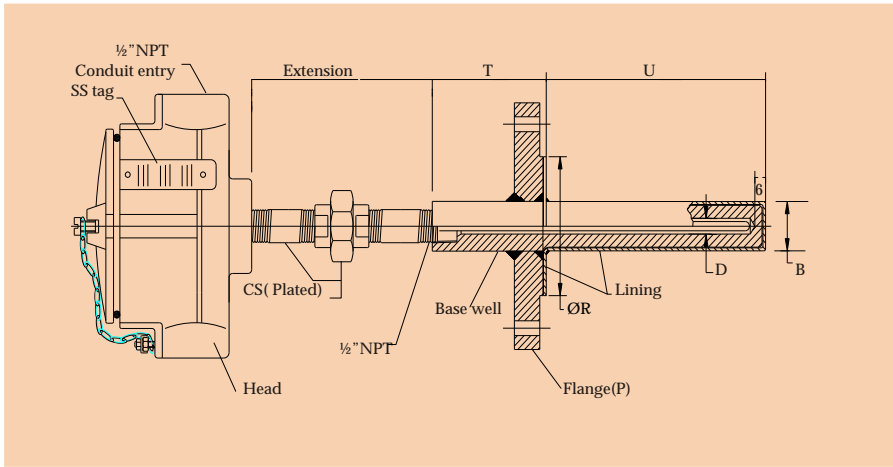
440 SERIES 1-K-6-316-D-1-TuC-A105-U=150-T=50-N=150-1.5"150#RF-Op 1,3

Pyro Electric Instruments Goa Pvt Ltd.

Office : G/B, Hill Crown Apartments, College Road, Mapusa, Goa 403507; Email: pyroadmin@pyro-electric.in

450 Series
*Thermocouple & Resistance
Thermometer Assemblies with*

- A Flanged well with Lining
- Lining in Ta, Ti, Ni, Hast C.
- Flameproof or Weatherproof execution in SS316 or Aluminum.
- Available with "in-head" 2-wire Temperature Transmitter.



Thermocouples or resistance Thermometers are often required with Thermowells which can withstand corrosion caused by the process medium. It is expensive to manufacture bar stock thermowells in materials which can withstand the corrosion. An effective and less expensive alternative is to manufacture the thermowells from 300 series Stainless steel barstocks and provide a sleeve or loose lining over the entire wetted portion of the well including the raised face of the flange, which can withstand the corrosive attack from process medium.

Thermowells can be provided with lining in various materials such as Tantalum(Ta), Titanium(Ti), Nickel(Ni), Hastelloy 'C', Hastelloy'B', Silver (Ag) and Platinum - Rhodium alloy (PtRh)

The standard execution as shown in this leaflet is with plated CS extension and Aluminum head with conduit entry of 1/2"NPT and well entry of M20x1.5 and ungrounded Thermocouple.

Code	No of Elements
1	Simplex
2	Duplex
3	Triplex

Code	Elements
J	Iron-Constantan
K	Chromel-Alumel
T	Copper-Constantan
E	Chromel-Constantan
N	Nicrosil-Nisil
R	PtRh 13%-Pt
S	PtRh 10%-Pt
B	PtRh30%-PtRh6%
Pt	Pt100 RTD

Code	Sheath Dia	'd'
6	6mm	7.0mm
8	8mm	8.0mm
10	10mm	10.0mm

Code	Sheath Material
316	316SS
321	321SS
Inc	Inconel 600

Code	Head T ype
D	Weatherproof
F	Flameproof IIA/IIB
C	Flameproof IIC
JB	Junction Box

Code	No of entries
1	One entry
2	Two entries

Code	Options
0	None
1	Head in 304SS
2	Head in 316SS
3	Extension in 304SS
4	Other Conduit entry
6	In Head Transmitter
7	Brass Cable Gland
8	SS Cable Gland
10	Special requirement

Process Conn P	B1	B
3/4"ANSI or DN20	17	12.5
1"ANSI or DN 25	22	16
1.5"ANSI or DN 40	25	19
2"ANSI or DN 50	28	25

Other sizes and dimensions on request

Code	W ell Extension
T	Define

Code	W ell Insertion
U	Define

Code	Flange Material
A105	ASTMA105 (CS)
F316	ASTM A182 F316

Code	Lining Material	Lining Thickness
Ta	Tantalum	0.4mm
Ti	Titanium	1.0mm
Ni	Nickel	1.0mm
Hc	Hastelloy C	1.0mm

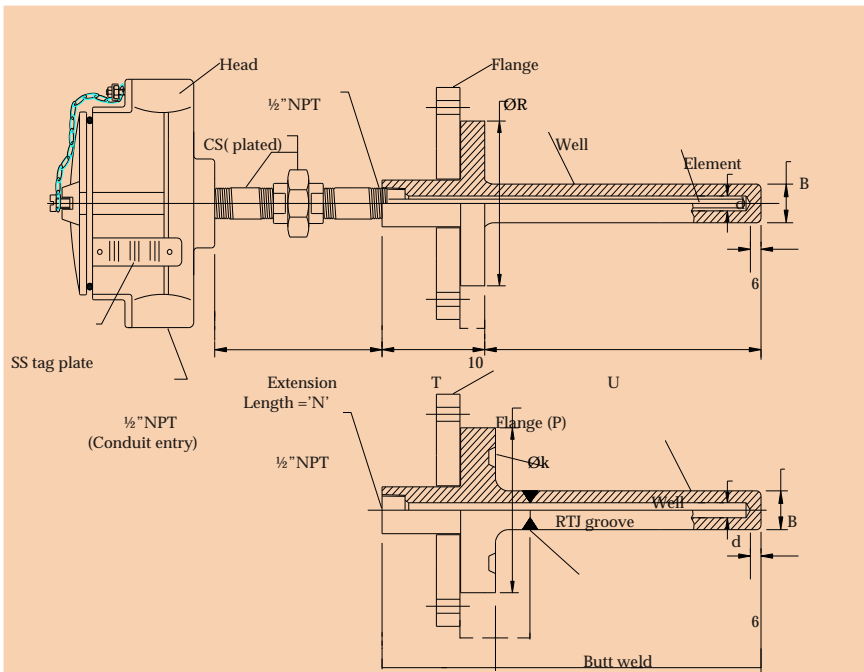
Code	W ell Material
316	316SS
304	304SS

ORDERING EXAMPLE
450 SERIES 1-K-6-316-D-1-316-Ti-F316-U=150-T=50-1.5"150#RF-Op 1,3

460 Series

Thermocouple & Resistance
Thermometer Assemblies with

- A Van Stone Thermowell with or without weld joints.
- Flameproof or Weatherproof execution in SS31 or Aluminum.
- Safe design as per ASME PTC19.3.
- Available with "in-head" 2-wire Temperature Transmitter.
- Raised face or RTJ facing.
- Mounting flange in A105 or A182 F316
- 100% Radiography for weld joints.
- PWHT
- Hardness to NACE MR-01-75
- Ferrite Number between 3 and 10



For Highly corrosive services, Thermowells without a weld joint are recommended. If weld joints cannot be avoided, full penetration weld is carried out and checked by 100% radiography test.

The design shown in this leaflet fulfills this criteria. Thermowells can also be offered with PWHT of weld joint, hardness check as per NACE MR-01-75, DP test, hydro test and ferrite number test.

Code	No of Elements
1	Simplex
2	Duplex
3	Triplex

Code	Elements
J	Iron-Constantan
K	Chromel-Alumel
T	Copper-Constantan
E	Chromel-Constantan
N	Nicrosil-Nisil
R	PtRh 13%-Pt
S	PtRh 10%-Pt
B	PtRh30%-PtRh6%
Pt	Pt100 RTD

Code	Sheath Dia	d
6	6mm	7.0mm
8	8mm	8.0mm
10	10mm	10.0mm

Code	Sheath Material
316	316SS
321	321SS
Inc	Inconel 600

Code	Head Type
D	Weatherproof
F	Flameproof IIA/IIB
C	Flameproof IIC
JB	Junction Box

Code	No of entries
1	One entry
2	Two entries

Code	Options
0	None
1	Head in 304SS
2	Head in 316SS
3	Extension in 304SS
4	Other Conduit entry
6	In Head Transmitter
7	Brass Cable Gland
8	SS Cable Gland
10	Special requirement
11	Full penetration weld

Process Conn P	B1	B
3/4"ANSI or DN20	17	12.5
1"ANSI or DN 25	22	16
1.5"ANSI or DN 40	25	19
2"ANSI or DN 50	28	25

Other sizes and dimensions on request

Code	Well Extension
T	Define

Code	Well Insertion
U	Define

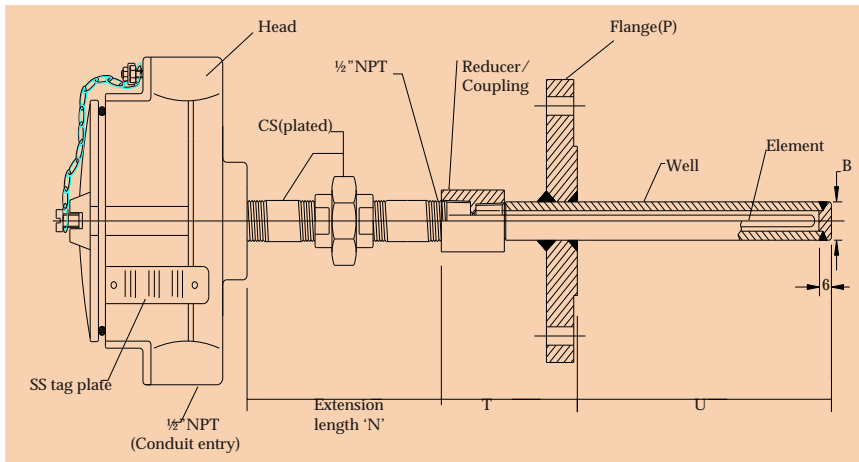
Code	Flange Material
A105	ASTMA105 (CS)
F316	A182 F316
F304	A182 F304
F321	A182 F321
F5	A182 F5
Lf2	A350 Lf2

Other materials also available. Define grade

Code	Well Material
316	316SS
304	304SS
321	321SS
446	446SS

ORDERING EXAMPLE

460 SERIES 1-K-6-316-D-1-316-F316-U=150-T=70-1"150#RF-Op4



470 Series

Thermocouple & Resistance Thermometer Assemblies with

- A Protecting Tube.
- Built up from seamless tubes, fixed or adjustable.
- Flameproof or Weatherproof execution in SS316 or Aluminum.
- Available with “in-head” 2-wire Temperature Transmitter.

Msmi Thermocouple or Resistance Thermometer Sensor fitted into a terminal Head, and provided with or without head extension and a protecting tube would form a typical complete assembly ready for use in the application where flow and pressure are not a major concern.

Protecting tubes are built from seamless tubes with hot end plugged and TIG welded and a blind flange is drilled to suit the outer diameter of the tube and TIG welded to it. These thermowells are available in standard AISI 300 series Stainless Steel as well as exotic materials such as Incoloy 800, Inconel 600, 446SS and flanges in ASTM grades A105, A182 and A350 in sizes 3/4" to 2" (DN20 to DN50).

The standard execution as shown in this leaflet is with plated CS extension and Aluminum head with conduit entry of 1/2"NPT and ungrounded Junction for Thermocouples unless specified otherwise.

Code	No of Elements
1	Simplex
2	Duplex
3	Triplex

Code	Elements
J	Iron-Constantan
K	Chromel-Alumel
T	Copper-Constantan
E	Chromel-Constantan
N	Nicrosil-Nisil
R	PtRh 13%-Pt
S	PtRh 10%-Pt
B	PtRh30%-PtRh6%
Pt	Pt100 RTD

Code	Sheath Dia	'd'
6	6mm	7.0mm
8	8mm	8.0mm
10	10mm	10.0mm

Code	Sheath Material
316	316SS
321	321SS
Inc	Inconel 600

Code	Head T ype
D	Weatherproof
F	Flameproof IIA/IIB
C	Flameproof IIC
JB	Junction Box

Code	No of entries
1	One entry
2	Two entries

Code	Well Material
316	316SS
304	304SS
321	321SS
Inc6	Inconel 600

Code	Options
0	None
1	Head in 304SS
2	Head in 316SS
3	Extension in 304SS
4	Other Conduit entry
6	In Head Transmitter
7	Brass Cable Gland
8	SS Cable Gland
10	Special requirement

Code	Flange Size
1/2"150# RF	1/2" ASA or Dn15 150#RF
3/4"150#RF	3/4" ASA or Dn20 150#RF
1"150#RF	1" ASA or Dn25 150#RF
1.25"150#RF	1.25"ASA or Dn32 150#RF
1.5"150#RF	1.5"ASA or Dn40 150#RF
2"150#RF	2"ASA or Dn50 150#RF

Define flange rating and facing.

Code	W ell Extension
T	Define

Code	W ell Insertion
U	Define

Code	Flange material
A105	ASTMA105 (CS)
F316	ASTM A182 F316
F304	ASTM A182 F304

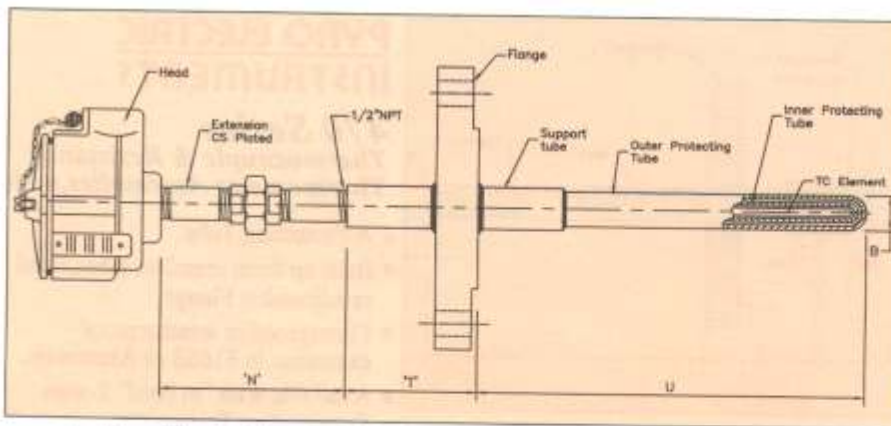
Other material s are also available .
Define grade.

Code	T ube Dimensions OD x W/t
1/8"Sch80	10.29x2.41
1/4"Sch80	13.72x3.02
3/8"Sch80	17.15x3.18
1/2"Sch80	21.30x3.73
1/2"Sch160	21.30x4.75
3/4"Sch80	26.60x3.91
3/4"Sch160	26.60x5.53

Other dimensions are also available.

ORDERING EXAMPLE

470 SERIES 1-K-6-316-D-1-316-1/2"Sch80-F316-U=640-T=60-1.5"150-Op0



PYRO ELECTRIC INSTRUMENTS

471 Series Thermocouple & Resistance Thermometer Assemblies, with

- Twin Protecting Tube.
- Flameproof or weatherproof execution in 316SS or Aluminum.
- Metallic support tube with fixed or adjustable flange.
- Available with "in head" 2-wire Temperature Transmitter.

A Mineral insulated, metal sheathed Thermocouple or a Thermocouple element insulated with re-crystallized alumina tube fitted into a terminal head & provided with or without head extension, a support tube & re-crystallized Alumina protecting tube covered with another ceramic or metal tube would form a typical assembly for temperature measurements of furnaces, combustion chambers, recuperators & similar applications.

The closed end Protecting tube normally employed is re-crystallized Alumina Type 710 containing 99.7% Aluminium oxide & conforming to Type 799 as per DIN VDE 0335 & can be used for temperatures upto 1700 deg C. These tubes are impervious & are fixed to metallic support tube by means of ceramic to metal cement.

The low cost option is Pythagoras Tubes, Type 610 containing approximately 60% Aluminium oxide as per DIN VDE 0335 & can be used for temperatures upto 1400 deg C. The standard execution as shown in this leaflet is with plated CS extension & Aluminium head with conduit entry of 1/2" NPT.

The Thermocouple wire size when used as a beaded Thermocouple is 24 AWG (0.51mm) for type R,S & 'B' & 14 AWG for all base metal Thermocouples.

471 Series

Code	Thermocouple Type	Code	Options
MI	Mineral insulated & metal sheathed	0	None
BE	Thermocouple element insulated with ceramic Tube (beaded type)	1	Head in 304 SS
		2	Head in 316 SS
		3	Extension in 304 SS
		4	Extension in 316 SS
		5	Other Conduit entry
		6	In head Transmitter
		7	Brass cable gland
		8	SS Cable gland
		10	Special requirement
Code	No of Elements	Code	Flange size
1	Simplex	FF	Fixed Flange
2	Duplex	AF	Adjustable flange
		Define flange size, rating and facing.	
Code	Elements	Code	Extension Length
K	Chromel-Alumel	T	Define extension
N	Nicrosil-Nisil		
R	PtRh 13%-Pt	Code	Insertion length
S	PtRh 10%-Pt	U	Define insertion
B	PtRh 30%-PtRh 6%		
Code	Sheath Dia for MI	Code	Wire Dia for BE
3	3.0mm	24	24 AWG
4.5	4.5mm	20	20 AWG
6	6.0mm	18	18 AWG
8	8.0mm	16	16 AWG
10	10.0mm	14	14 AWG
12	12.0mm	8	8 AWG
Code	Sheath Material	Code	Flange Material
Inc	Inconel 600	A105	ASTM A105(CS)
X	None	F304	A182 F304
		F316	A182 F316
		Other materials also available Define grade.	
Code	Head Type	Code	Outer Protecting Tube
D	Weatherproof	710	Recrystallized Alumina
F	Flameproof IIA/IB	610	Pythagoras
C	Flameproof IIC	AF	Kanthal AF
JB	Junction Box	APM	Kanthal APM
		446	446 SS
		Define dimensions	
Code	No of Entries	Code	Protecting Tube
1	One Entry	ker 710	Recrystallized alumina
2	Two Entry	Ker 610	Pythagoras
		Dimension 15x2.5 or 12x2	
Code	Support Tube		
Inc 8	Incoloy 800		
446	446 SS		
Inc 6	Inconel 600		
310	310 SS		

ORDERING EXAMPLE

471 SERIES MI-2-R-6-Inc-D-2-310-Ker 710(15x2.5)-APM(26x2.9)-A105-U=760-T=60-FF(1.5"150#RF)-OPTION 7,4,10

PYRO ELECTRIC INSTRUMENTS GOA PVT.LTD.

Hill Crown Apt, College Road, Mapuca- 403507 Tel : 0832 - 2252719/ 2264391 Fax : 0832- 2263294

Email : sales@pyroelectricgoa.com, pyrogoa@sancharnet.in

Plot No. 71, Bicholim Ind Estate, Bicholim (Goa) Tel.:0832 - 2361212 / 2362579 Fax: 0832 - 2363381

MUMBAI OFFICE : Unit 1A, Industrial House, Bhagoji Keer Marg, Mahim, Mumbai 400 016 (India)

Tel : (022) 24461547 Tel/Fax : (022) 24459936 Cell: 38970341 Email : pyroelectric@sify.com Visit us at www.pyroelectricgoa.com

