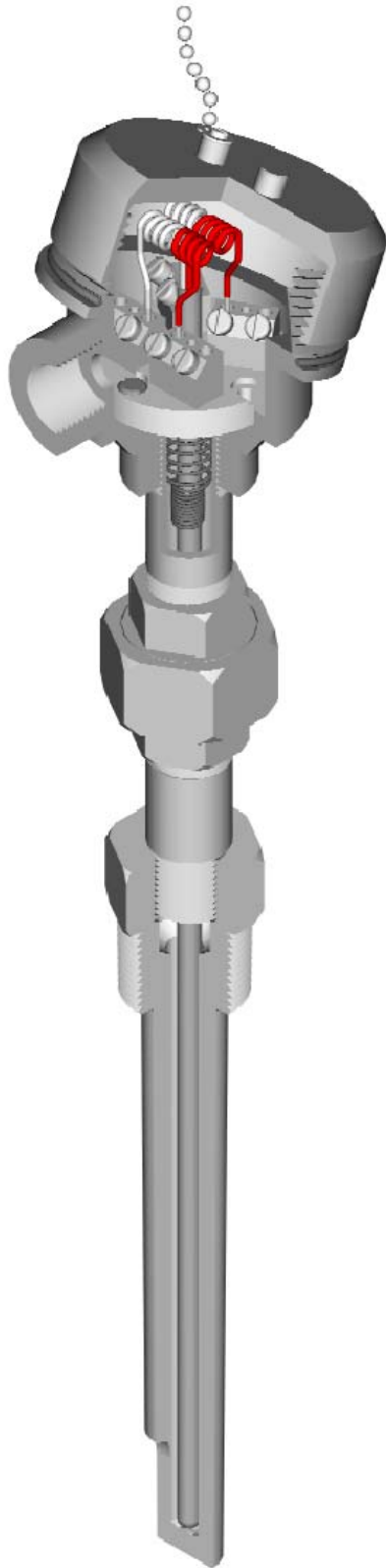


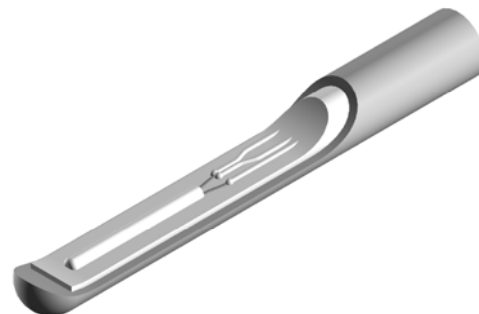
INDUSTRIAL RTD's

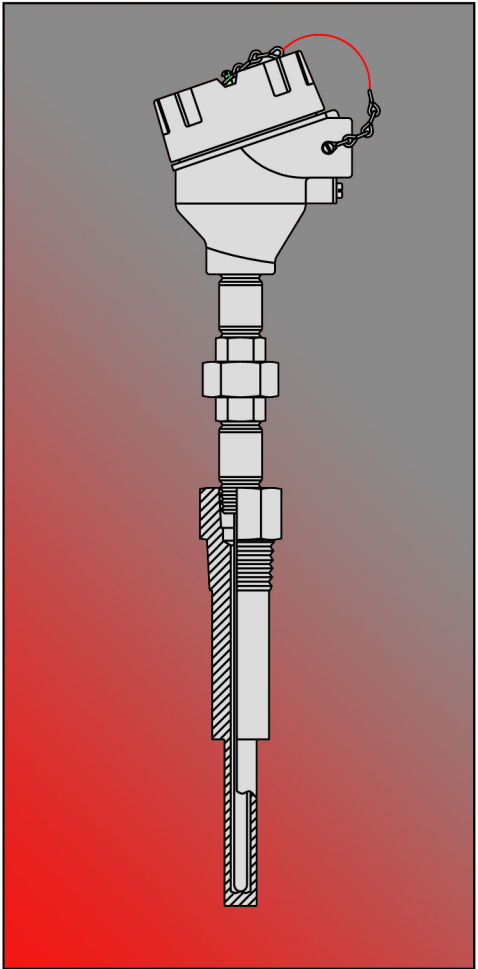
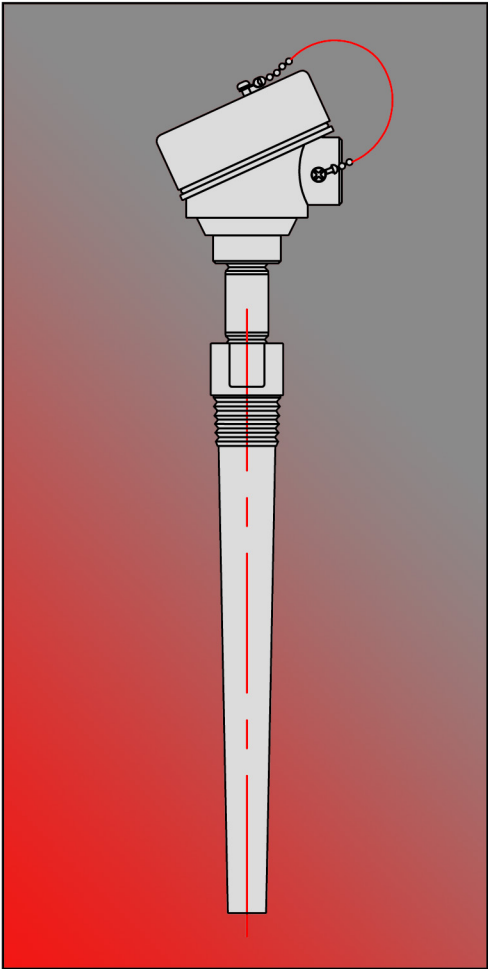
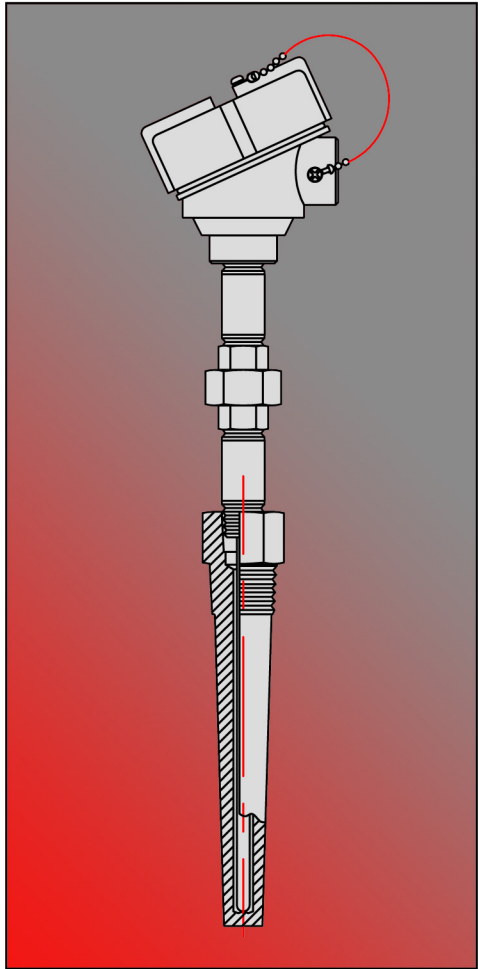
Section INRD



Resistance Temperature Detectors (RTD's) operate under the principle that the electrical resistance of certain metals increases or decreases in a repeatable and predictable manner with a temperature change. RTD's may have a lower temperature range than some thermocouples and a slower response time, however, they are more stable and repeatable over long periods of time. RTD's higher signal output make them easier to interface with computers and data loggers and reduces the effects of radio frequency interference. Industrial RTD's are used in the process and power industry, pipe lines and vessels. The more commonly used configurations are listed on the following pages. They represent only a small portion of Thermo Electric's capability to manufacture quality products conforming to your specifications.

The standard RTD employs either thin film or wire wound bulb depending on the temperature range desired. The most common is the platinum, 100 OHM with a temperature coefficient of resistance of 0.00385 ohms/ohm/°C. Standard tolerance is a grade B to ASTM E1137. For tighter accuracy the grade A is available.





**Drilled Threaded Bar Stock Well Assemblies
Tapered & Straight**

Process Connection - 3/4"NPT or 1"NPT
Well Material - 304 & 316 Stn. Stl. Carbon Steel, Brass
Element Type - Platinum, Copper, Nickel
TRC - .00385, .003916, .003923, .00427(CU), .00672(NI)
Temperature Range - 292 to +1202°F (-180 to 650°C)

The most common type of well assembly style and size. Threaded well allow for insertion directly into process lines through pipe TEE's or Laterals. They can also be inserted into tanks with half couplings or threaded outlets. They are available with a straight shank for longer wear and tapered to limit flow restrictions or when velocity considerations must be taken into account.

**Drilled Threaded Bar Stock Well Assemblies
Alloy Metals, Tapered**

Process Connection - 3/4"NPT or 1"NPT
Well Material - 310 & 446 Stn. Stl., Hastelloy C276, Monel 400, Inconel 600, F11, F22
Element Type - Platinum, Copper, Nickel
TRC - .00385, .003916, .003923, .00427(CU), .00672(NI)
Temperature Range - 292 to +1202°F (-180 to 650°C)

Other environments, corrosive conditions or when additional strength is required bar stock wells can be fabricated in a number of austenitic, ferritic or martensitic stainless steels, nickel alloys, chrome-molys or other specialty metals. Wrench flats are machined into the neck for installation since these alloys are usually only available in round stock. Wells are available with standard tapered, straight or step down shanks.

**Drilled Threaded Bar Stock Well Assemblies
Step Down**

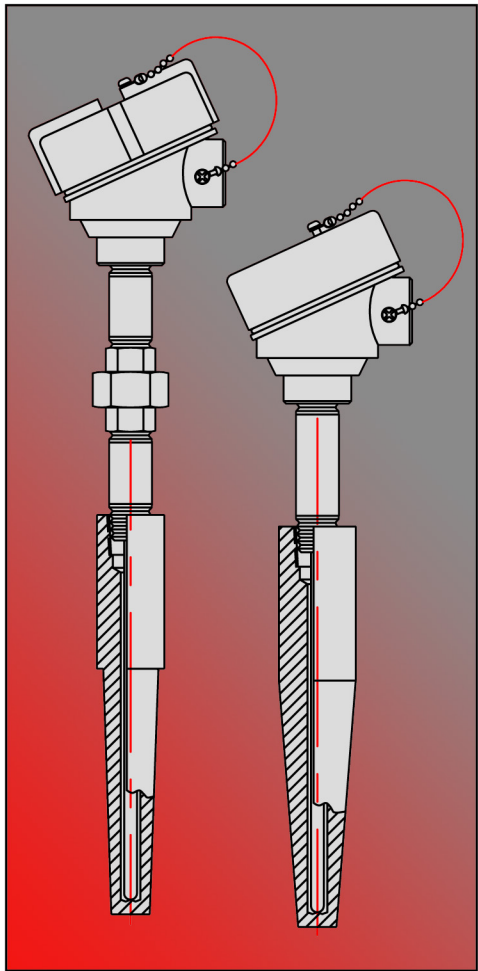
Process Connection - 3/4"NPT or 1"NPT
Well Material - 304 & 316 Stn. Stl. Carbon Steel, Brass
Element Type - Platinum, Copper, Nickel
TRC - .00385, .003916, .003923, .00427(CU), .00672(NI)
Temperature Range - 292 to +1202°F (-180 to 650°C)

The step down construction provides a reduced wall thickness for the remaining 2 1/2" of well length. This design allows for improved response time of the thermocouple element. Wells 2 1/2" in length or less are supplied with the 1/2" diameter step for the entire shank length.

Threaded Well Assemblies with Tapered Shank
See Document TE-SB101606-INRD-010
Threaded Well Assemblies with Straight Shank
See Document TE-SB101606-INED-020

Threaded Well Assemblies, Alloy Metals with
Tapered Shank
See Document TE-SB101606-INRD-030

Threaded Well Assemblies with Step Down Shank
See Document TE-SB101606-INRD-040

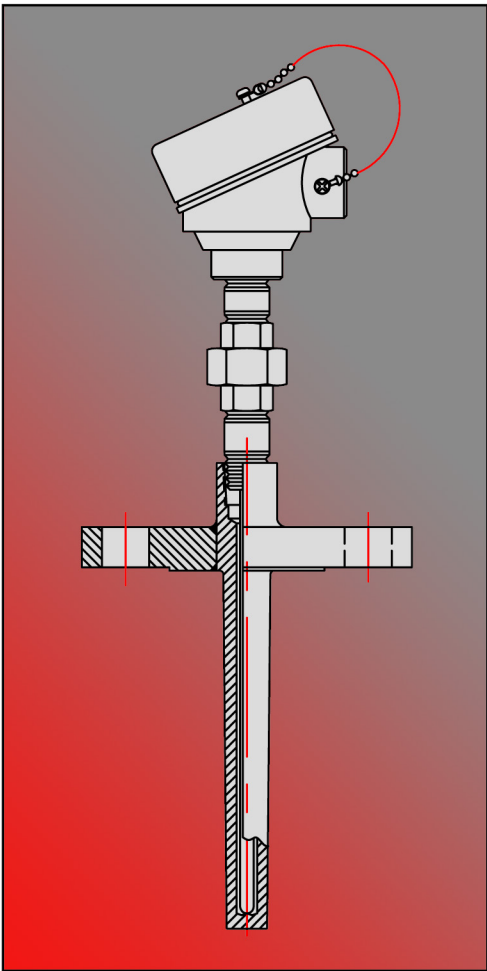


Drilled Socket & Weld-in Bar Stock Well Assemblies

Process Connection - 3/4"NPS or 1"NPS, 1.315 or 1.5 Weld-in
Well Material - 304 & 316 Stn. Stl. Carbon Steel, Carbon Steel, Chrome-moly
Element Type - Platinum, Copper, Nickel
TRC - .00385, .003916, .003923, .00427(CU), .00672(NI)
Temperature Range - 292 to +1202°F (-180 to 650°C)

Socket and Weld-in bar stock wells are used in high temperature , high pressure service, most often steam. A regular product for the power industry where absolute leak proof permanent connections are mandatory. Socket wells are inserted into process lines through pipe TEE's or Laterals or on to branch lines with socket outlets. Weld-in wells are welded directly into heavy wall tanks.

Socket Well Assemblies
See Document TE-CO010109-INRD-050
Weld-in Well Assemblies
See Document TE-CO010109-INRD-060

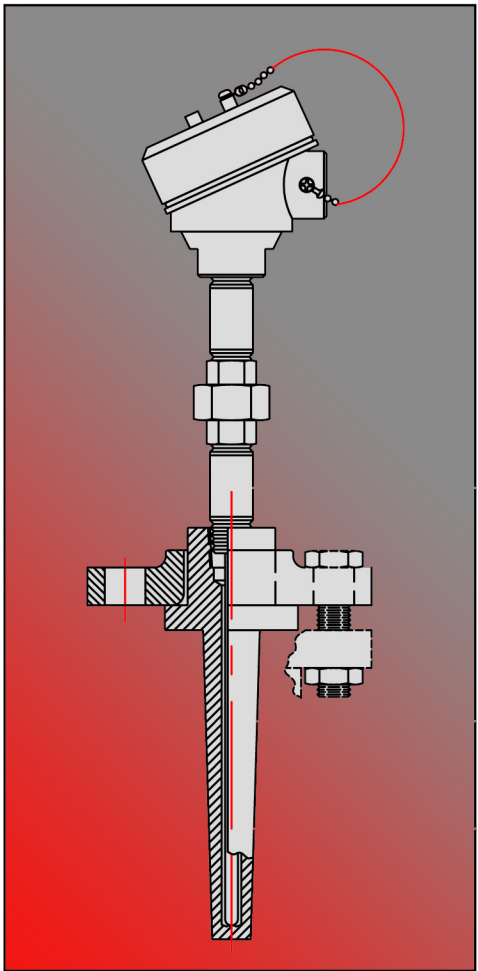


**Drilled Flanged Bar Stock Well Assemblies
Tapered, Straight, Stepped Down shank**

Process Connection - Connects to Mating Flange
Well Material - All grades of Stainless Steel, Nickel alloys, Hastelloy, Specialty metals
Element Type - Platinum, Copper, Nickel
TRC - .00385, .003916, .003923, .00427(CU), .00672(NI)
Temperature Range - 292 to +1202°F (-180 to 650°C)

Forged flanges in numerous sizes, ratings and facings mate to existing process flange connections in pipe lines or through welding neck flanges on reactors or tanks. These are available in raised face, flat face and ring joint connection. Flanges are welded to the bar stock stem on both sides. Optional full penetration welds are available for additional leak free protection.

Flange Well Assemblies with Tapered Shank
See Document TE-CO010109-INRD-070
Flange Well Assemblies with Straight Shank
See Document TE-CO010109-INRD-080
Flange Well Assemblies with Stepped Down Shank
See Document TE-CO010109-INRD-090



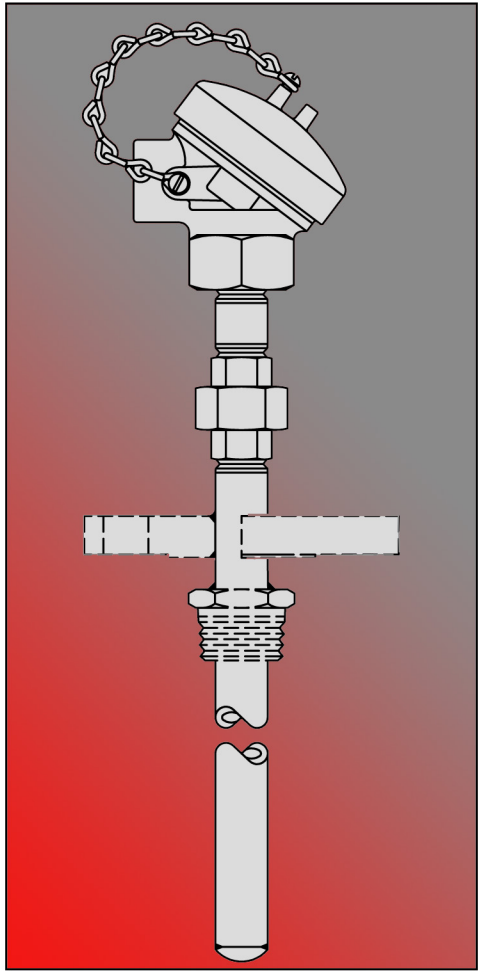
**Van Stone Well Assemblies
Tapered, Straight**

Process Connection - Connects to 1" or 1 1/2" Mating Flange
Well Material - All grades of Stainless Steel, Nickel alloys, Hastelloy, Specialty metals
Element Type - Platinum, Copper, Nickel
TRC - .00385, .003916, .003923, .00427(CU), .00672(NI)
Temperature Range - 292 to +1202°F (-180 to 650°C)

The Van Stone thermowell is machined from a single piece of bar stock with a neck the same as the face diameter of a 1" or 1 1/2" flange. This design allows for sandwiching of the van stone between the vessel process flange and a securing slip on flange. This design offers two advantages:

1. Any weld stress is eliminated.
2. The slip on flange not being exposed to the process conditions can be of a less expensive material.

Van Stone Well Assemblies with Tapered Shank
See Document TE-CO010109-INRD-100
Van Stone Well Assemblies with Straight Shank
See Document TE-CO010109-INRD-110

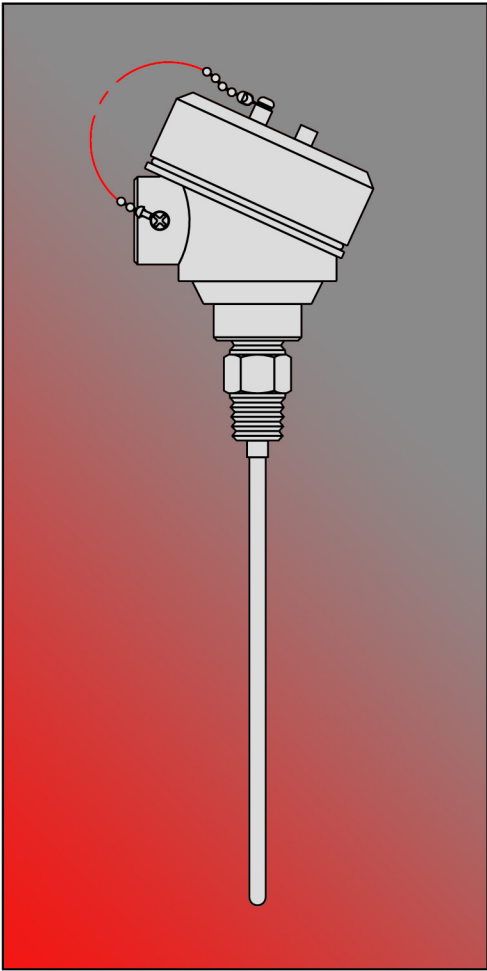


Pipe Well Assemblies
Plain, Threaded, Flanged

Process Connection - Welded, NPT Threaded or Flanged
Pipe Material - All grades of Stainless Steel, Nickel alloys, Hastelloy, Specialty metals
Element Type - Platinum, Copper, Nickel
TRC - .00385, .003916, .003923, .00427(CU), .00672(NI)
Temperature Range - 292 to +1202°F (-180 to 650°C)

A lower cost alternative to bar stock wells where pressure and velocities are low. Pipe wells are available in schedule 40, 80, 160 or XX strong, 1/4" to 1" pipe size. Plain wells can be welded directly into a tank or simply free hanging, threaded wells are supplied with a welded on NPT bushing for a threaded process connection, flanged pipe wells connect to a mating flange for a stronger connection. Pipe wells are commonly supplied in lengths up to 20 feet.

Pipe Well Assemblies, Plain
See Document TE-CO010109-INRD-120
Pipe Well Assemblies, Threaded
See Document TE-CO010109-INRD-130
Pipe Well Assemblies, Flanged
See Document TE-CO010109-INRD-140

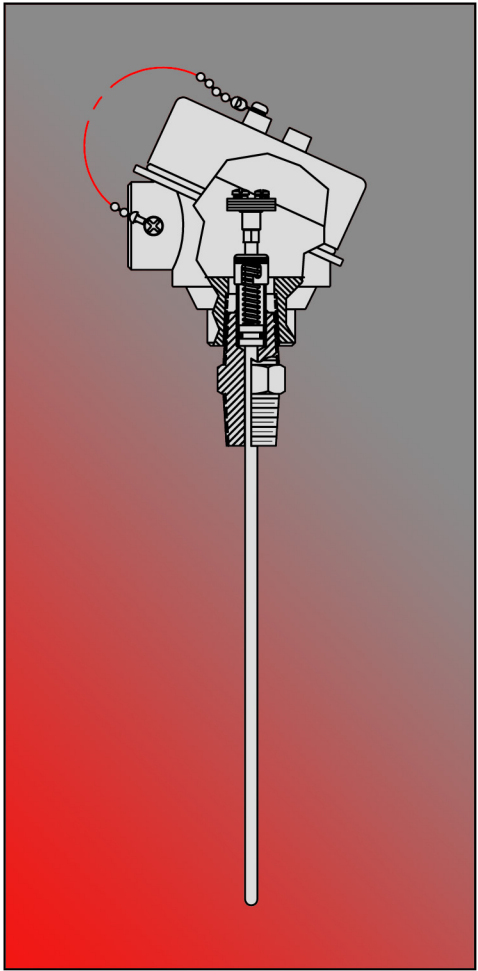


Ceramocouples®

Process Connection - 1/2"NPT Threaded
Element Type - Platinum, Copper, Nickel
TRC - .00385, .003916, .003923, .00427(CU), .00672(NI)
Temperature Range - 292 to +1202°F (-180 to 650°C)

CERAMOCOUPLES® are a cost effective alternative where the process doesn't require a thermowell or protection tube. Ceramocouples are available with the element sealed to a double ended fitting for a leak proof connection or spring loaded with the element captive to restrict side movement. Reducing bushings can be added for larger process openings.

Ceramocouples®
See Document TE-CO010109-INRD-150

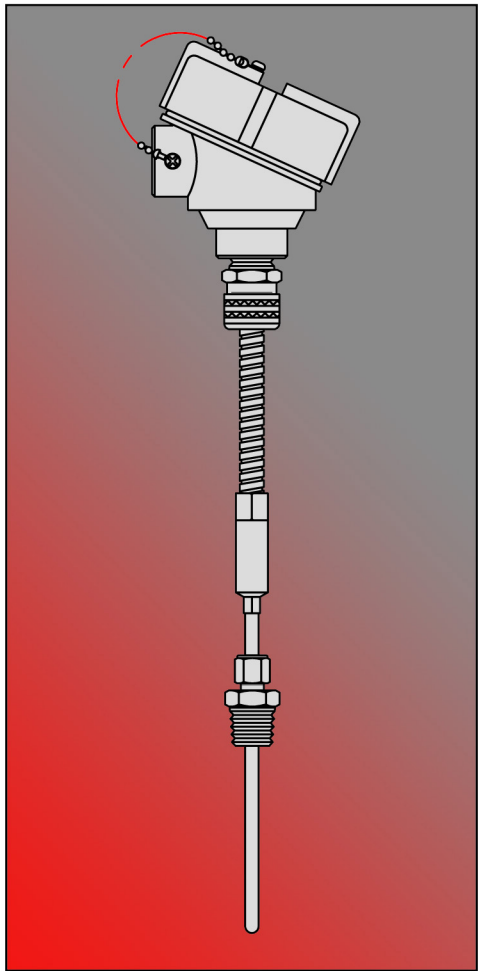


Oil Seal Thermocouples

Process Connection - 1/2"NPT Threaded
Element Type - Platinum, Copper, Nickel
TRC - .00385, .003916, .003923, .00427(CU), .00672(NI)
Temperature Range 450°F (260°C)

Oil seal thermocouples provide an efficient method of measuring bearing temperatures. An "O" ring designed into the assembly prevents the lubricating oil from entering the connection head. Oil seals are available with a floating collar and S head block or O-ring sealing fitting.

Oil Seal RTD's with Floating Collar
See Document TE-CO010109-INRD-160
Oil Seal RTD's
See Document TE-CO010109-INRD-170

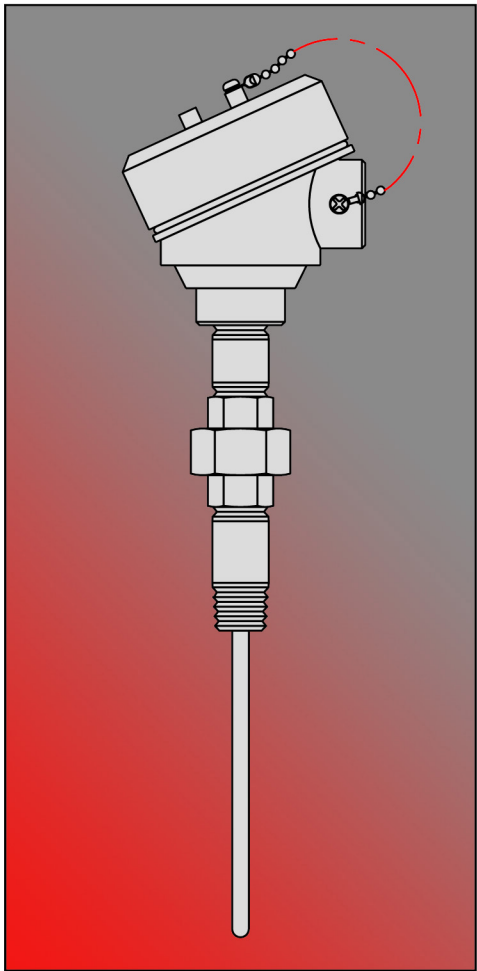


Remote Head Mounted
Assemblies

Process Connection - 1/2"NPT Thread
Element Type - Platinum, Copper, Nickel
TRC - .00385, .003916, .003923, .00427(CU), .00672(NI)
Temperature Range - 292 to +1202°F (-180 to 650°C)

A remote mounted head provides assurance that in the event of a well failure, the process media cannot leak into the head. A remote head is also useful where process vibration can cause connection problems within the head. It is an excellent method of utilizing a head where physical clearance at the process connection is limited. Remote head assemblies are supplied with a 1/2"NPT fitting for the well connection, the element terminates to PVC coated flexible armored leads of any length.

Remote Head Mount Assemblies
See Document TE-CO010109-INRD-180



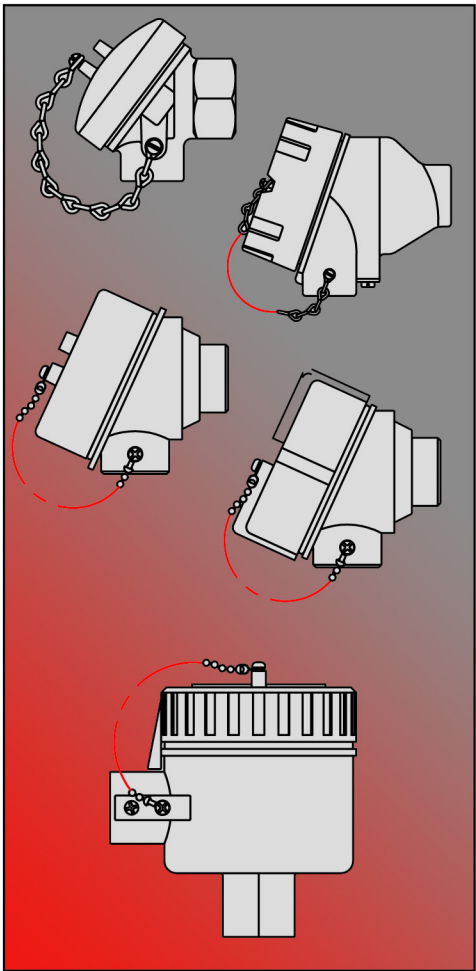
Assemblies Less Thermowells
Spare RTD Elements

Process Connection - 1/2" or 3/4"NPT
Element Type - Platinum, Copper, Nickel
TRC - .00385, .003916, .003923, .00427(CU), .00672(NI)
Temperature Range - 292 to +1202°F (-180 to 650°C)

Assemblies can be matched to fit existing wells or wells provided by another supplier. These assemblies can also be screwed into a bored opening of equipment housing.

Replacement elements are available for any Thermo Electric assembly as startup or commission spares or manufactured and shipped to the site on express service.

Assemblies Less Thermowells
See Document TE-CO010109-INRD-190
Replacement Thermocouple Elements
See Document TE-CO010109-INRD-200



Connection Heads

Material - Aluminum, Stainless Steel, Cast Iron or polypropylene
Terminal Block - 4 Point and 6 Point Standard, Transmitter
Certifications - NEMA-4, 4X, Explosion Proof FM, CSA, ATEX

The connection head performs two essential functions: It provides a method of terminating the RTD by means of terminal block or transmitter mounted inside the head. It also provides protection for the element from environment and mechanical conditions.

Thermo Electric's large device connection head is capable of containing excess coiled lead wire or a number of the large smart transmitters

See Documents TE-CO010109-INRD-210 & TE-CO010109-INTC-220

INDUSTRIAL RTD'S

A	CODE	HEAD EXTENSION
	2	NIPPLE (NOTE 1)
	4	NIPPLE/UNION/NIPPLE (NOTE 1)

B	CODE	MATERIAL	TYPE	NEMA
	AN	ALUMINUM	WATER PROOF	4
	SN	STAINLESS STEEL	WATER PROOF, CORROSION RESISTANT	4, 4X
B	AE	ALUMINUM	EXPLOSION PROOF (NOTE 2)	4
	SE	STAINLESS STEEL	EXPLOSION PROOF, CORROSION RESISTANT (NOTE 2)	4, 4X
	XD	ALUMINUM	EXPLOSION PROOF, FM, CSA APPROVED (NOTES 2 & 3)	4, 4X
B	A	CAST IRON	WEATHER PROOF, RUGGED	
	L	POLYPROPYLENE	WEATHER PROOF, LIGHT WEIGHT	
	AX	ALUMINUM, LARGE DEVICE, EPOXY COATED	EXPLOSION PROOF, ATEX APPROVED (NOTE 3)	4

C	CODE	CONDUIT OPENING	D	CODE	TUBE OPENING	E	CODE	"A" LENGTH
		1/2 or 3/4NPT			1/2NPT			IN INCHES

F	CODE	STRUCTURE
		SINGLE (LEAVE BLANK)
	D	DUPLEX

G	CODE	SHEATH DIAMETER (STANDARD 316 STN. STL.) (NOTE 4)
	316	3/16" (.187)
	14	1/4" (.250)

H	CODE	STANDARD	MATERIAL	TCR	RESISTANCE @ 0° C.
		DIN 43760	PLATINUM	.00385	100 OHMS (LEAVE BLANK)
	PT5	DIN 43760	PLATINUM	.00385	500 OHMS
H	PT1	DIN 43760	PLATINUM	.00385	1000 OHMS (LT RANGE ONLY)
	JIS	JIS-C-1604-81	PLATINUM	.003916	100 OHMS
	SA	RC21-4-1966	PLATINUM	.003923	98.129 OHMS
H	CU		COPPER	.00427	10 OHMS (LT RANGE ONLY)
	NI		NICKEL	.00672	120 OHMS

J	CODE	TEMPERATURE RANGE
	LT	-58 to +500° F (-50 to +260° C.)
	MT	-58 to +900° F (-50 to +482° C.)
		-292 to +932° F (-180 to +500° C) (LEAVE BLANK)
	HT	-292 to +1202° F (-180 to +650° C) (NOTE 5)

K	CODE	SYSTEM
	2W	2 WIRE (4 WIRE TOTAL WITH DUPLEX)
		3 WIRE (LEAVE BLANK)
	4W	4 WIRE (8 TOTAL WITH DUPLEX)

L	CODE	ACCURACY
		ASTM E1137 CLASS B (LEAVE BLANK)
	CLA	ASTM E1137 CLASS A

M	CODE	WELL TYPE
		PROCESS NPT
		OD-1
M	11	3/4"
	12	3/4"
	13	1"
M	14	1"
	121	3/4"
	141	1"

N	CODE	WELL MATERIAL
	P	304 STAINLESS STEEL
	B	BRASS
	R	316 STAINLESS STEEL
	PLorRL	304or316 S. S. (LOW CARBON)
	N	CARBON STEEL

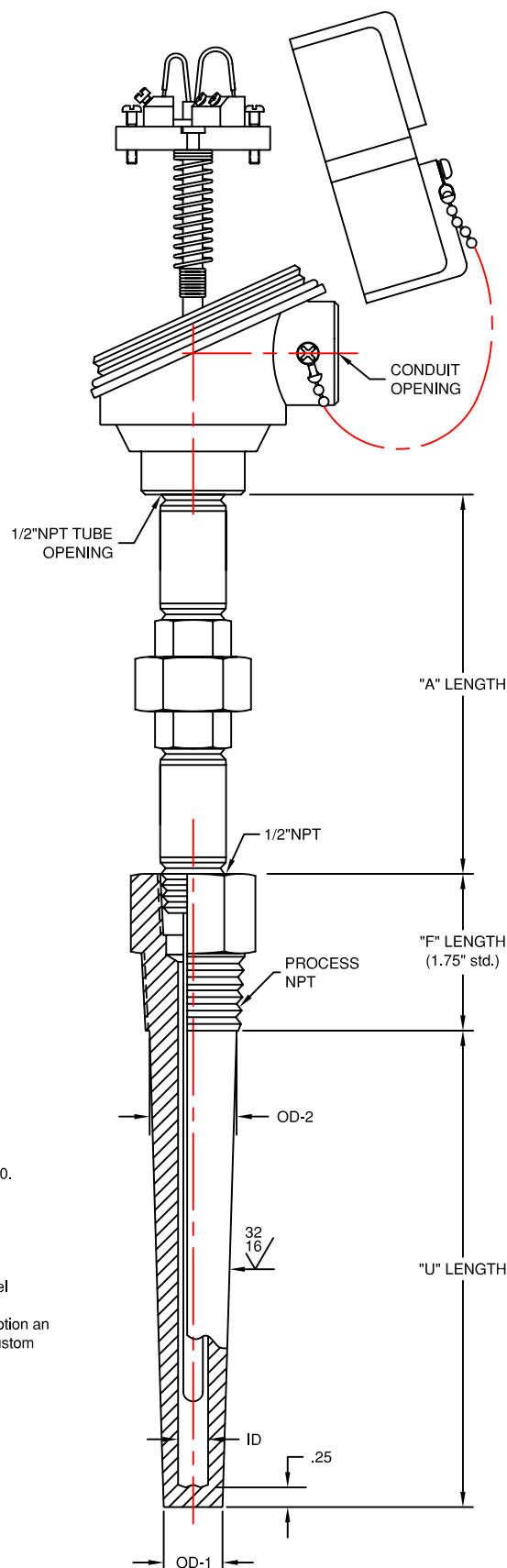
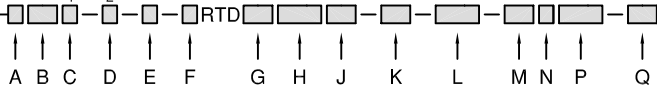
P	CODE	"F" LENGTH
		IN INCHES (1.75" STD.)

Q	CODE	"U" LENGTH
		IN INCHES

Notes:

- (1) Standard Nipples - Steel, Schedule 40.
Standard Unions - Black Malleable Iron, 150#.
OPTIONAL STAINLESS STEEL
Nipples - 304 or 316 Stainless Steel, Schedule 40 or 80.
Unions - 304 or 316 Stainless Steel.
Example Ordering Code: 4AE 3/4 1/2 6(R or R80).
- (2) Rated NEC class 1, Groups B, C and D.
- (3) ATEX approved EEx d IIC, T6.
- (4) Contact factory for other sheaths and element types.
- (5) Standard in single construction, 3 wire, class B, Inconel sheath material.
- (6) For an item that does not fall within the catalog description an (SP) can be added to the ordering code as part of a custom construction.

EXAMPLE: 4 AE 3/4 - 1/2 - 4 - D 14 PT5 LT 4W CLA - 14 P 1.75 - 3.5



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SECTION INRD

DRILLED THREADED WELL ASSEMBLIES
TAPERED CONSTRUCTION
3/4 & 1" NPT PROCESS CONNECTIONS

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Doc. No.: TE-CO010109-INRD-010

INDUSTRIAL RTD'S

A	CODE	HEAD EXTENSION
	2	NIPPLE (NOTE 1)
	4	NIPPLE/UNION/NIPPLE (NOTE 1)

B	CODE	CONNECTION HEAD		
		MATERIAL	TYPE	NEMA
	AN	ALUMINUM	WATER PROOF	4
	SN	STAINLESS STEEL	WATER PROOF, CORROSION RESISTANT	4, 4X
	AE	ALUMINUM	EXPLOSION PROOF (NOTE 2)	4
	SE	STAINLESS STEEL	EXPLOSION PROOF, CORROSION RESISTANT (NOTE 2)	4, 4X
	XD	ALUMINUM	EXPLOSION PROOF, FM, CSA APPROVED (NOTES 2 & 3)	4, 4X
	A	CAST IRON	WEATHER PROOF, RUGGED	
	L	POLYPROPYLENE	WEATHER PROOF, LIGHT WEIGHT	
	AX	ALUMINUM, LARGE DEVICE, EPOXY COATED	EXPLOSION PROOF, ATEX APPROVED (NOTE 3)	4

C	CODE	CONDUIT OPENING	D	CODE	TUBE OPENING	E	CODE	"A" LENGTH
		1/2 or 3/4NPT			1/2			IN INCHES

F	CODE	STRUCTURE
		SINGLE (LEAVE BLANK)
	D	DUPLEX

G	CODE	SHEATH DIAMETER (STANDARD 316 STN. STL.) (NOTE 4)
	316	3/16" (.187)
	14	1/4" (.250)

		ELEMENT TYPE (NOTE 4)				
		CODE	STANDARD	MATERIAL	TCR	RESISTANCE @ 0° C.
H		PT5	DIN 43760	PLATINUM	.00385	100 OHMS (LEAVE BLANK)
			DIN 43760	PLATINUM	.00385	500 OHMS
		PT1	DIN 43760	PLATINUM	.00385	1000 OHMS (LT RANGE ONLY)
		JIS	JIS-C-1604-81	PLATINUM	.003916	100 OHMS
		SA	RC21-4-1966	PLATINUM	.003923	98.129 OHMS
		CU		COPPER	.00427	10 OHMS (LT RANGE ONLY)
		NI		NICKEL	.00672	120 OHMS

J	CODE	TEMPERATURE RANGE
	LT	-58 to +500° F (-50 to +260° C.)
	MT	-58 to +900° F (-50 to +482° C.)
		-292 to +932° F (-180 to +500° C) (LEAVE BLANK)
	HT	-292 to +1202° F (-180 to +650° C) (NOTE 5)

K	CODE	SYSTEM
	2W	2 WIRE (4 WIRE TOTAL WITH DUPLEX)
		3 WIRE (LEAVE BLANK)
	4W	4 WIRE (8 TOTAL WITH DUPLEX)

L	CODE	ACCURACY
		ASTM E1137 CLASS B (LEAVE BLANK)
	CLA	ASTM E1137 CLASS A

M	WELL TYPE				
	CODE	PROCESS NPT	OD-1	OD-2	ID
	16	3/4"	.750	.750	.385
	18	1"	.750	.750	.385
	161	3/4"	.750	.750	.260
	181	1"	.750	.750	.260

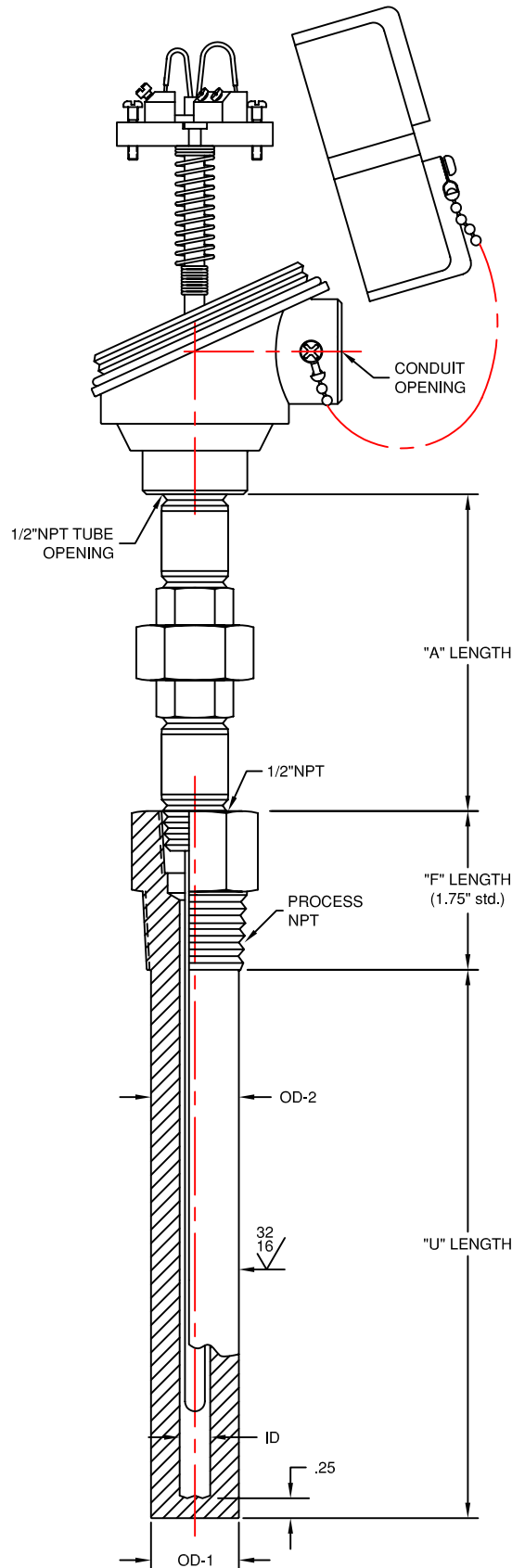
N	WELL MATERIAL	
	CODE	
	P	304 STAINLESS STEEL
	B	BRASS
	R	316 STAINLESS STEEL
	PLorRL	304or316 S. S. (LOW CARBON)
	N	CARBON STEEL

P	CODE	"F" LENGTH
		IN INCHES (1.75" STD.)

Q	CODE	"U" LENGTH
		IN INCHES

Notes:

- (1) Standard Nipples - Steel, Schedule 40.
Standard Unions - Black Malleable Iron, 150#.
OPTIONAL STAINLESS STEEL
Nipples - 304 or 316 Stainless Steel, Schedule 40 or 80.
Unions - 304 or 316 Stainless Steel.
Example Ordering Code: 4AE 3/4 1/2 6(R or R80).
- (2) Rated NEC class 1, Groups B, C and D.
- (3) ATEX approved EEx d IIC, T6.
- (4) Contact factory for other sheaths and element types.
- (5) Standard in single construction, 3 wire, class B, Inconel sheath material.
- (6) For an item that does not fall within the catalog description an (SP) can be added to the ordering code as part of a custom construction.



EXAMPLE: 4 AE $\frac{3}{4}$ - $\frac{1}{2}$ - 4 - D 14 PT5 LT 4W CLA - 18 R 1.75 - 12

A B C D E F G H J K L M N P Q



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SECTION INRD

DRILLED THREADED WELL ASSEMBLIES
STRAIGHT CONSTRUCTION
3/4 & 1" NPT PROCESS CONNECTIONS

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Doc. No.: TE-CO010109-INRD-020

INDUSTRIAL RTD'S

CODE	HEAD EXTENSION
A	2 NIPPLE (NOTE 1)
4	NIPPLE/UNION/NIPPLE (NOTE 1)

CONNECTION HEAD			
CODE	MATERIAL	TYPE	NEMA
AN	ALUMINUM	WATER PROOF	4
SN	STAINLESS STEEL	WATER PROOF, CORROSION RESISTANT	4, 4X
AE	ALUMINUM	EXPLOSION PROOF (NOTE 2)	4
SE	STAINLESS STEEL	EXPLOSION PROOF, CORROSION RESISTANT (NOTE 2)	4, 4X
XD	ALUMINUM	EXPLOSION PROOF, FM, CSA APPROVED (NOTES 2 & 3)	4, 4X
A	CAST IRON	WEATHER PROOF, RUGGED	
L	POLYPROPYLENE	WEATHER PROOF, LIGHT WEIGHT	
AX	ALUMINUM, LARGE DEVICE, EPOXY COATED	EXPLOSION PROOF, ATEX APPROVED (NOTE 3)	4

CODE	CONDUIT OPENING	D	CODE	TUBE OPENING	E	CODE	"A" LENGTH
	1/2 or 3/4NPT			1/2			IN INCHES

CODE	STRUCTURE
F	SINGLE (LEAVE BLANK)
D	DUPLEX

CODE	SHEATH DIAMETER (STANDARD 316 STN. STL.) (NOTE 4)
316	3/16" (.187)
14	1/4" (.250)

ELEMENT TYPE (NOTE 4)				
CODE	STANDARD	MATERIAL	TCR	RESISTANCE @ 0° C.
	DIN 43760	PLATINUM	.00385	100 OHMS (LEAVE BLANK)
PT5	DIN 43760	PLATINUM	.00385	500 OHMS
PT1	DIN 43760	PLATINUM	.00385	1000 OHMS (LT RANGE ONLY)
JIS	JIS-C-1604-81	PLATINUM	.003916	100 OHMS
SA	RC21-4-1966	PLATINUM	.003923	98.129 OHMS
CU		COPPER	.00427	10 OHMS (LT RANGE ONLY)
NI		NICKEL	.00672	120 OHMS

CODE	TEMPERATURE RANGE
LT	-58 to +500° F (-50 to +260° C.)
MT	-58 to +900° F (-50 to +482° C.)
	-292 to +932° F (-180 to +500° C) (LEAVE BLANK)
HT	-292 to +1202° F (-180 to +650° C) (NOTE 5)

CODE	SYSTEM
2W	2 WIRE (4 WIRE TOTAL WITH DUPLEX)
	3 WIRE (LEAVE BLANK)
4W	4 WIRE (8 TOTAL WITH DUPLEX)

CODE	ACCURACY
CLA	ASTM E1137 CLASS B (LEAVE BLANK)
	ASTM E1137 CLASS A

WELL TYPE					
CODE	PROCESS NPT	OD-1	OD-2	ID	NECK DIAM. (MIN.)
24	1"	.750	1.11	.385	1.38"
25	3/4"	.750	.844	.385	1.25"
241	1"	.750	1.11	.260	1.38"
251	3/4"	.750	.844	.260	1.25"

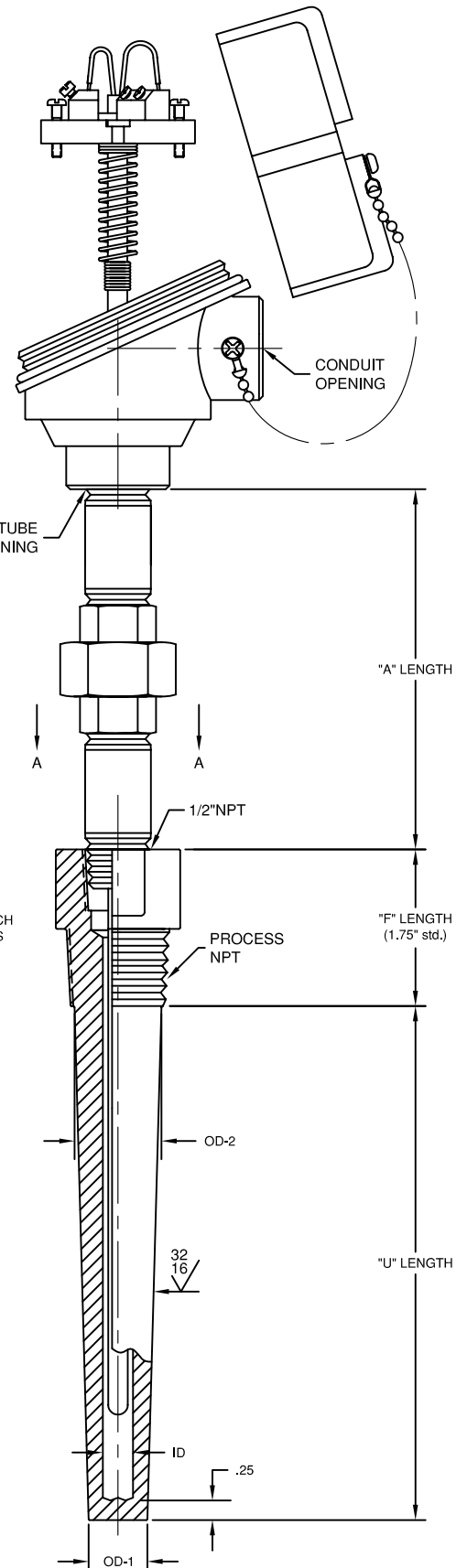
CODE	WELL MATERIAL
Y	446 STAINLESS STEEL
H	HASTELLOY C276
L	MONEL 400
J	INCONEL 600
Q	310 STAINLESS STEEL
(F11)	1.25% CR - .5% MO
(F22)	2.25% CR - 1% MO

CODE	"F" LENGTH
P	IN INCHES (1.75" STD.)

CODE	"U" LENGTH
Q	IN INCHES

Notes:

- (1) Standard Nipples - Steel, Schedule 40.
Standard Unions - Black Malleable Iron, 150#.
OPTIONAL STAINLESS STEEL
Nipples - 304 or 316 Stainless Steel, Schedule 40 or 80.
Unions - 304 or 316 Stainless Steel.
Example Ordering Code: 4AE 3/4 1/2 6(R or R80).
- (2) Rated NEC class 1, Groups B, C and D.
- (3) ATEX approved EEx d IIC, T6.
- (4) Contact factory for other sheaths and element types.
- (5) Standard in single construction, 3 wire, class B, Inconel sheath material.
- (6) For an item that does not fall within the catalog description an (SP) can be added to the ordering code as part of a custom construction.



EXAMPLE: 4 AE $\frac{3}{4}$ - $\frac{1}{2}$ - 4 - D 14 PT5 LT 4W CLA - 25 Q 1.75 - 8

↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑

A B C D E F G H J K L M N P Q



TEMPERATURE MEASUREMENT DESIGNER'S GUIDE
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SECTION INRD

DRILLED THREADED WELL ASSEMBLIES
TAPERED CONSTRUCTION, ALLOY METALS
3/4 & 1"NPT PROCESS CONNECTIONS

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Doc. No.: TE-CO010109-INRD-030

INDUSTRIAL RTD'S

A	CODE	HEAD EXTENSION
	2	NIPPLE (NOTE 1)
	4	NIPPLE/UNION/NIPPLE (NOTE 1)

B	CODE	CONNECTION HEAD		
		MATERIAL	TYPE	NEMA
	AN	ALUMINUM	WATER PROOF	4
	SN	STAINLESS STEEL	WATER PROOF, CORROSION RESISTANT	4, 4X
	AE	ALUMINUM	EXPLOSION PROOF (NOTE 2)	4
	SE	STAINLESS STEEL	EXPLOSION PROOF, CORROSION RESISTANT (NOTE 2)	4, 4X
	XD	ALUMINUM	EXPLOSION PROOF, FM, CSA APPROVED (NOTES 2 & 3)	4, 4X
	A	CAST IRON	WEATHER PROOF, RUGGED	
	L	POLYPROPYLENE	WEATHER PROOF, LIGHT WEIGHT	
	AX	ALUMINUM, LARGE DEVICE, EPOXY COATED	EXPLOSION PROOF, ATEX APPROVED (NOTE 3)	4

C	CODE	CONDUIT OPENING	D	CODE	TUBE OPENING	E	CODE	"A" LENGTH
		1/2 or 3/4NPT			1/2			IN INCHES

F	CODE	STRUCTURE
		SINGLE (LEAVE BLANK)
	D	DUPLEX

G	CODE	SHEATH DIAMETER (STANDARD 316 STN. STL.) (NOTE 4)
	316	3/16" (.187)
	14	1/4" (.250)

CODE		ELEMENT TYPE (NOTE 4)			
		STANDARD	MATERIAL	TCR	RESISTANCE @ 0° C.
H	PT5	DIN 43760	PLATINUM	.00385	100 OHMS (LEAVE BLANK)
		DIN 43760	PLATINUM	.00385	500 OHMS
	PT1	DIN 43760	PLATINUM	.00385	1000 OHMS (LT RANGE ONLY)
		JIS-C-1604-81	PLATINUM	.003916	100 OHMS
	SA	RC21-4-1966	PLATINUM	.003923	98.129 OHMS
	CU		COPPER	.00427	10 OHMS (LT RANGE ONLY)
	NI		NICKEL	.00672	120 OHMS

J	CODE	TEMPERATURE RANGE
	LT	-58 to +500° F (-50 to +260° C.)
	MT	-58 to +900° F (-50 to +482° C.)
		-292 to +932° F (-180 to +500° C) (LEAVE BLANK)
	HT	-292 to +1202° F (-180 to +650° C) (NOTE 5)

K	CODE	SYSTEM
	2W	2 WIRE (4 WIRE TOTAL WITH DUPLEX)
		3 WIRE (LEAVE BLANK)
	4W	4 WIRE (8 TOTAL WITH DUPLEX)

L	CODE	ACCURACY
		ASTM E1137 CLASS B (LEAVE BLANK)
	CLA	ASTM E1137 CLASS A

M	CODE	WELL TYPE				
		PROCESS NPT	OD-1	OD-2	ID	HEX
	122	3/4"	.500	.750	.260	1.13
	142	1"	.500	.880	.260	1.38

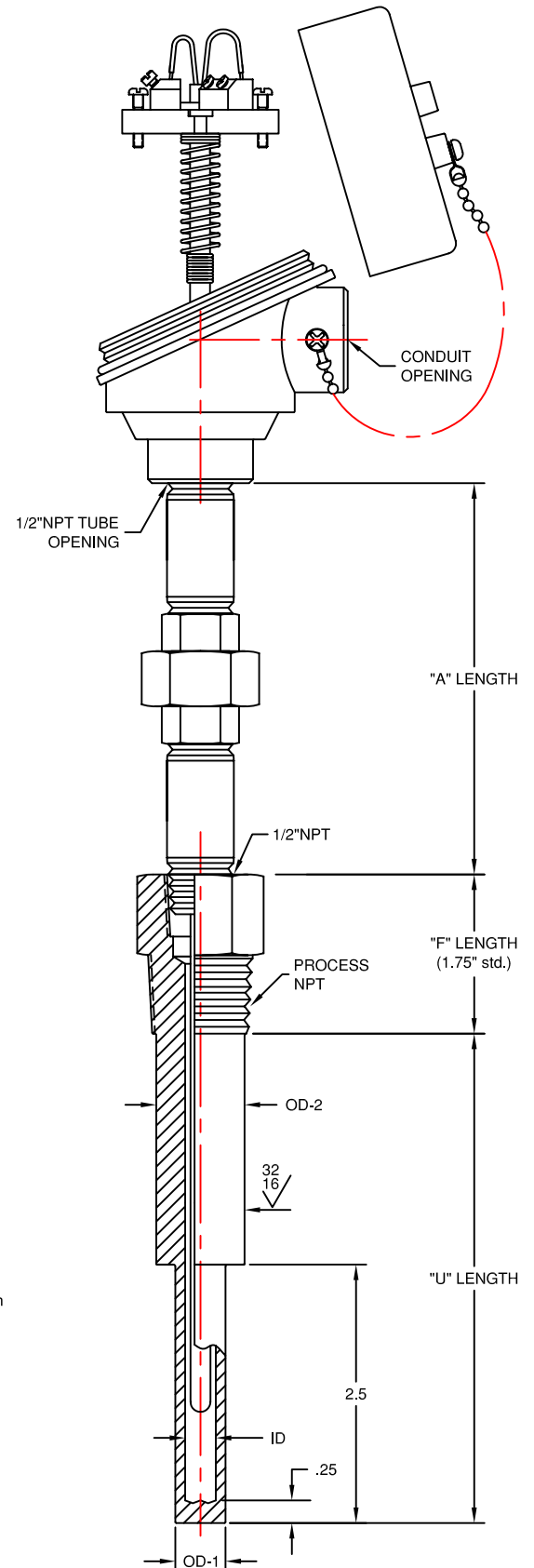
N	CODE	WELL MATERIAL
	P	304 STAINLESS STEEL
	B	BRASS
	R	316 STAINLESS STEEL
	PLorRL	304or316 S. S. (LOW CARBON)
	N	CARBON STEEL

P	CODE	"F" LENGTH
		IN INCHES (1.75" STD.)

Q	CODE	"U" LENGTH
		IN INCHES

Notes:

- (1) Standard Nipples - Steel, Schedule 40.
Standard Unions - Black Malleable Iron, 150#.
OPTIONAL STAINLESS STEEL
Nipples - 304 or 316 Stainless Steel, Schedule 40 or 80.
Unions - 304 or 316 Stainless Steel.
Example Ordering Code: 4AE 3/4 1/2 6(R or R80).
- (2) Rated NEC class 1, Groups B, C and D.
- (3) ATEX approved EEx d IIC, T6.
- (4) Contact factory for other sheaths and element types.
- (5) Standard in single construction, 3 wire, class B, Inconel sheath material.
- (6) For an item that does not fall within the catalog description an (SP) can be added to the ordering code as part of a custom construction.



EXAMPLE: 4 AE $\frac{3}{4}$ - $\frac{1}{2}$ - 4 - D 14 PT5 LT 4W CLA - 142 R 1.75 - 6

A B C D E F G H J K L M N P Q



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SECTION INRD

DRILLED THREADED WELL ASSEMBLIES STEPPED DOWN SHANK CONSTRUCTION 3/4 & 1"NPT PROCESS CONNECTIONS

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Doc. No.: TE-CO010109-INRD-040

INDUSTRIAL RTD'S

A	CODE	HEAD EXTENSION
	2	NIPPLE (NOTE 1)
	4	NIPPLE/UNION/NIPPLE (NOTE 1)

B	CODE	CONNECTION HEAD		
		MATERIAL	TYPE	NEMA
	AN	ALUMINUM	WATER PROOF	4
	SN	STAINLESS STEEL	WATER PROOF, CORROSION RESISTANT	4, 4X
	AE	ALUMINUM	EXPLOSION PROOF (NOTE 2)	4
	SE	STAINLESS STEEL	EXPLOSION PROOF, CORROSION RESISTANT (NOTE 2)	4, 4X
	XD	ALUMINUM	EXPLOSION PROOF, FM, CSA APPROVED (NOTES 2 & 3)	4, 4X
	A	CAST IRON	WEATHER PROOF, RUGGED	
	L	POLYPROPYLENE	WEATHER PROOF, LIGHT WEIGHT	
	AX	ALUMINUM, LARGE DEVICE, EPOXY COATED	EXPLOSION PROOF, ATEX APPROVED (NOTE 3)	4

C	CODE	CONDUIT OPENING	D	CODE	TUBE OPENING	E	CODE	"A" LENGTH
		1/2 or 3/4NPT			1/2			IN INCHES

F	CODE	STRUCTURE
		SINGLE (LEAVE BLANK)
	D	DUPLEX

G	CODE	SHEATH DIAMETER (STANDARD 316 STN. STL.) (NOTE 4)
	316	3/16" (.187)
	14	1/4" (.250)

CODE		ELEMENT TYPE (NOTE 4)			
		STANDARD	MATERIAL	TCR	RESISTANCE @ 0° C.
H	PT5	DIN 43760	PLATINUM	.00385	100 OHMS (LEAVE BLANK)
		DIN 43760	PLATINUM	.00385	500 OHMS
	PT1	DIN 43760	PLATINUM	.00385	1000 OHMS (LT RANGE ONLY)
		JIS-C-1604-81	PLATINUM	.003916	100 OHMS
	SA	RC21-4-1966	PLATINUM	.003923	98.129 OHMS
	CU		COPPER	.00427	10 OHMS (LT RANGE ONLY)
	NI		NICKEL	.00672	120 OHMS

J	CODE	TEMPERATURE RANGE
	LT	-58 to +500° F (-50 to +260° C.)
	MT	-58 to +900° F (-50 to +482° C.)
		-292 to +932° F (-180 to +500° C) (LEAVE BLANK)
	HT	-292 to +1202° F (-180 to +650° C) (NOTE 5)

K	CODE	SYSTEM
	2W	2 WIRE (4 WIRE TOTAL WITH DUPLEX)
		3 WIRE (LEAVE BLANK)
	4W	4 WIRE (8 TOTAL WITH DUPLEX)

L	CODE	ACCURACY
		ASTM E1137 CLASS B (LEAVE BLANK)
	CLA	ASTM E1137 CLASS A

M	CODE	WELL TYPE				
		PROCESS NPS	OD-1	OD-2 (NOTE 7)	ID	PIPE SIZE (ACTUAL)
	01	3/4"	.750	.844	.385	3/4" (1.05")
	011	3/4"	.750	.844	.260	3/4" (1.05")
	02	1"	.750	1.063	.385	1" (1.315")
021	1"	.750	1.063	.260	1" (1.315")	

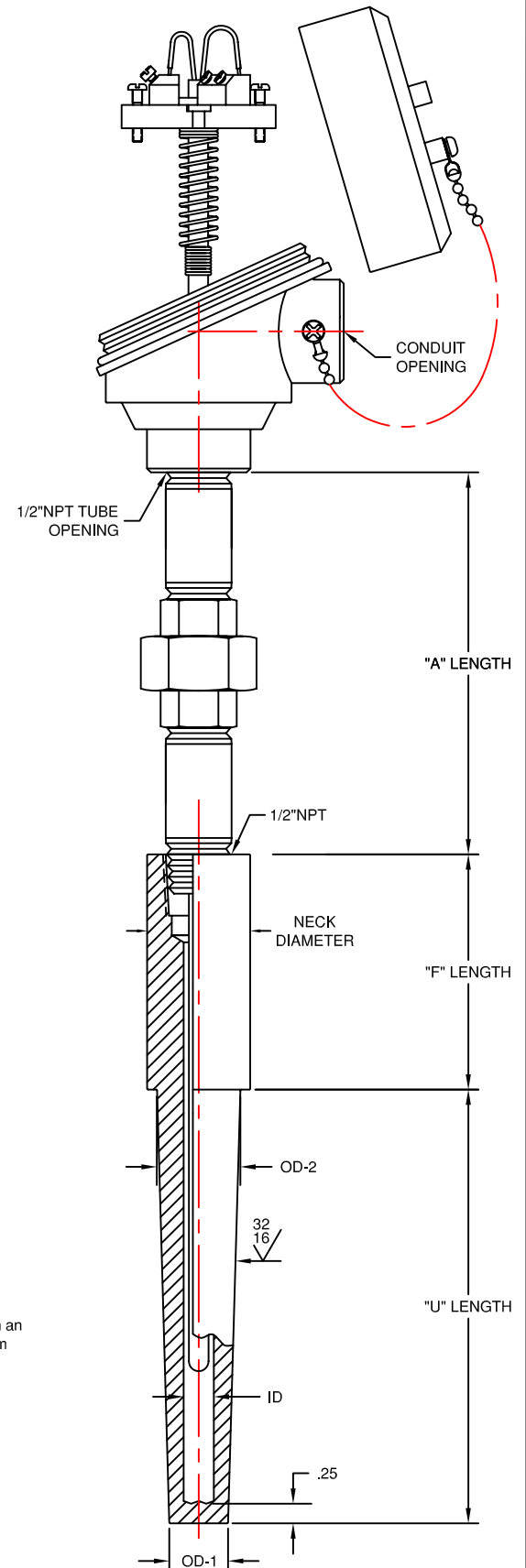
N	CODE	WELL MATERIAL
	P	304 STAINLESS STEEL
	R	316 STAINLESS STEEL
	PLorRL	304or316 S. S. (LOW CARBON)
	N	CARBON STEEL
	(F11)	1.25% CR - .5% MO
	(F22)	2.25% CR - 1% MO

P	CODE	"F" LENGTH
		IN INCHES

Q	CODE	"U" LENGTH
		IN INCHES

Notes:

- (1) Standard Nipples - Steel, Schedule 40.
Standard Unions - Black Malleable Iron, 150#.
OPTIONAL STAINLESS STEEL
Nipples - 304 or 316 Stainless Steel, Schedule 40 or 80.
Unions - 304 or 316 Stainless Steel.
Example Ordering Code: 4AE 3/4 1/2 6(R or R80).
- (2) Rated NEC class 1, Groups B, C and D.
- (3) ATEX approved EEx d IIC, T6.
- (4) Contact factory for other sheaths and element types.
- (5) Standard in single construction, 3 wire, class B, Inconel sheath material.
- (6) Shank diameter for 2000# service (Sch-40).
- (7) For an item that does not fall within the catalog description an (SP) can be added to the ordering code as part of a custom construction.



EXAMPLE: 4 AE $\frac{3}{4}$ - $\frac{1}{2}$ - 4 - D 14 PT5 LT 4W CLA - 02 R 3 - 5

↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑

A B C D E F G H J K L M N P Q



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SECTION INRD

DRILLED SOCKET WELD WELL ASSEMBLIES
TAPERED CONSTRUCTION
3/4 & 1" NPS PROCESS CONNECTIONS

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Doc. No.: TE-CO010109-INRD-050

INDUSTRIAL RTD'S

A	CODE	HEAD EXTENSION
	2	NIPPLE (NOTE 1)
	4	NIPPLE/UNION/NIPPLE (NOTE 1)

	CODE	CONNECTION HEAD		
		MATERIAL	TYPE	NEMA
B	AN	ALUMINUM	WATER PROOF	4
	SN	STAINLESS STEEL	WATER PROOF, CORROSION RESISTANT	4, 4X
	AE	ALUMINUM	EXPLOSION PROOF (NOTE 2)	4
	SE	STAINLESS STEEL	EXPLOSION PROOF, CORROSION RESISTANT (NOTE 2)	4, 4X
	XD	ALUMINUM	EXPLOSION PROOF, FM, CSA APPROVED (NOTES 2 & 3)	4, 4X
	A	CAST IRON	WEATHER PROOF, RUGGED	
	L	POLYPROPYLENE	WEATHER PROOF, LIGHT WEIGHT	
	AX	ALUMINUM, LARGE DEVICE, EPOXY COATED	EXPLOSION PROOF, ATEX APPROVED (NOTE 3)	4

C	CODE	CONDUIT OPENING	D	CODE	TUBE OPENING	E	CODE	"A" LENGTH
		1/2 or 3/4NPT			1/2		1/2NPT	

F	CODE	STRUCTURE
		SINGLE (LEAVE BLANK)
	D	DUPLEX

G	CODE	SHEATH DIAMETER (STANDARD 316 STN. STL.) (NOTE 4)
	316	3/16" (.187)
	14	1/4" (.250)

CODE		ELEMENT TYPE (NOTE 4)			
		STANDARD	MATERIAL	TCR	RESISTANCE @ 0° C.
H	PT5	DIN 43760	PLATINUM	.00385	100 OHMS (LEAVE BLANK)
		DIN 43760	PLATINUM	.00385	500 OHMS
	PT1	DIN 43760	PLATINUM	.00385	1000 OHMS (LT RANGE ONLY)
	JIS	JIS-C-1604-81	PLATINUM	.003916	100 OHMS
	SA	RC21-4-1966	PLATINUM	.003923	98,129 OHMS
	CU		COPPER	.00427	10 OHMS (LT RANGE ONLY)
	NI		NICKEL	.00672	120 OHMS

CODE		TEMPERATURE RANGE
J	LT	-58 to +500° F (-50 to +260° C.)
	MT	-58 to +900° F (-50 to +482° C.)
		-292 to +932° F (-180 to +500° C.) (LEAVE BLANK)
	HT	-292 to +1202° F (-180 to +650° C.) (NOTE 5)

K	CODE	SYSTEM
	2W	2 WIRE (4 WIRE TOTAL WITH DUPLEX)
		3 WIRE (LEAVE BLANK)
	4W	4 WIRE (8 TOTAL WITH DUPLEX)

L	CODE	ACCURACY
		ASTM E1137 CLASS B (LEAVE BLANK)
	CLA	ASTM E1137 CLASS A

M	CODE	WELL TYPE		
		NECK DIAMETER	OD-1	ID
	03	1.50"	.750	.385
	031	1.50"	.750	.260
	04	1.315"	.750	.385
	041	1.315"	.750	.260

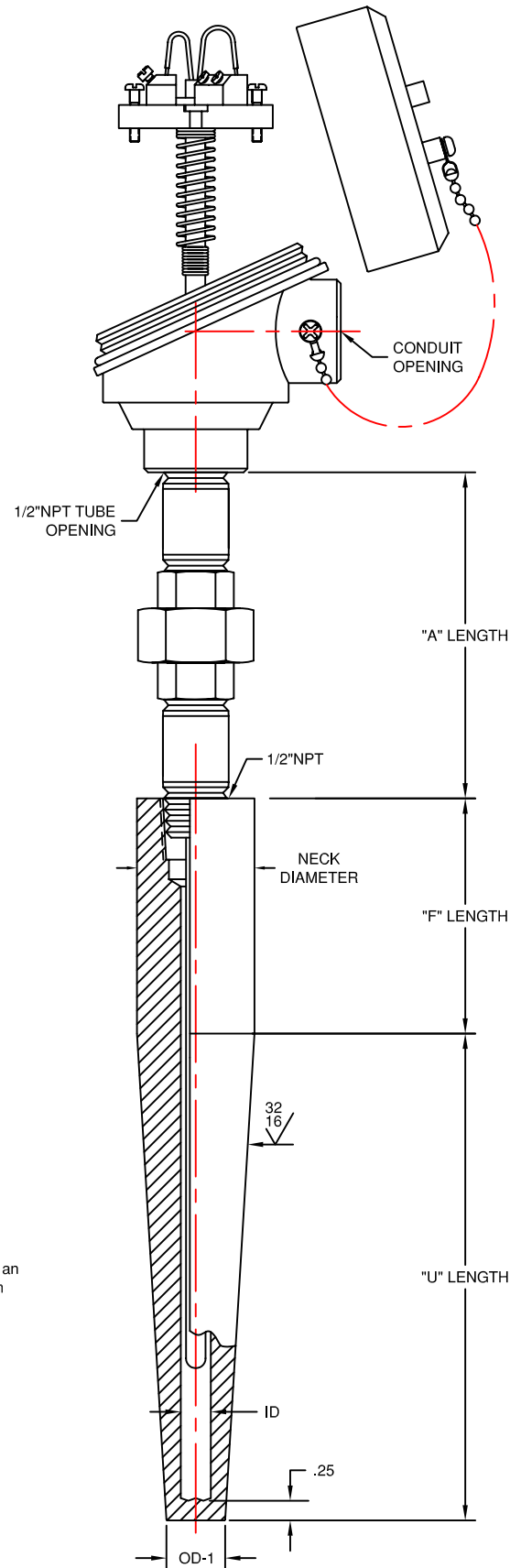
	CODE	WELL MATERIAL
N	P	304 STAINLESS STEEL
	R	316 STAINLESS STEEL
	PLorLR	304or316 S. S. (LOW CARBON)
	N1	CARBON STEEL
	(F11)	1.25% CR - .5% MO
	(F22)	2.25% CR - 1% MO

P	CODE	"F" LENGTH
		IN INCHES

Q	CODE	"U" LENGTH
		IN INCHES

Notes:

- (1) Standard Nipples - Steel, Schedule 40.
Standard Unions - Black Malleable Iron, 150#.
- OPTIONAL STAINLESS STEEL
Nipples - 304 or 316 Stainless Steel, Schedule 40 or 80.
Unions - 304 or 316 Stainless Steel.
Example Ordering Code: 4AE 3/4 1/2 6(R or R80).
- (2) Rated NEC class 1, Groups B, C and D.
- (3) ATEX approved EEx d IIC, T6.
- (4) Contact factory for other sheaths and element types.
- (5) Standard in single construction, 3 wire, class B, Inconel sheath material.
- (6) For an item that does not fall within the catalog description an (SP) can be added to the ordering code as part of a custom construction.



EXAMPLE: 4 AE $\frac{3}{4}$ - $\frac{1}{2}$ - 4 - D 14 PT5 LT 4W CLA - 04 P 5 - 3.5

RTD

A B C D E F G H J K L M N P Q



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SECTION INRD

DRILLED WELD-IN WELL ASSEMBLIES TAPERED CONSTRUCTION

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Doc. No.: TE-CO010109-INRD-060

INDUSTRIAL RTD'S

CODE	HEAD EXTENSION
2	NIPPLE (NOTE 1)
4	NIPPLE/UNION/NIPPLE (NOTE 1)

CODE	MATERIAL	TYPE	NEMA
AN	ALUMINUM	WATER PROOF	4
SN	STAINLESS STEEL	WATER PROOF, CORROSION RESISTANT	4, 4X
AE	ALUMINUM	EXPLOSION PROOF (NOTE 2)	4
SE	STAINLESS STEEL	EXPLOSION PROOF, CORROSION RESISTANT (NOTE 2)	4, 4X
XD	ALUMINUM	EXPLOSION PROOF, FM, CSA APPROVED (NOTES 2 & 3)	4, 4X
A	CAST IRON	WEATHER PROOF, RUGGED	
L	POLYPROPYLENE	WEATHER PROOF, LIGHT WEIGHT	
AX	ALUMINUM, LARGE DEVICE, EPOXY COATED	EXPLOSION PROOF, ATEX APPROVED (NOTE 3)	4

CODE	CONDUIT OPENING	D	CODE	TUBE OPENING	E	CODE	"A" LENGTH
	1/2 or 3/4NPT		1/2	1/2NPT			IN INCHES

CODE	STRUCTURE
	SINGLE (LEAVE BLANK)
D	DUPLEX

CODE	SHEATH DIAMETER (STANDARD 316 STN. STL.) (NOTE 4)
316	3/16" (.187)
14	1/4" (.250)

CODE	STANDARD	MATERIAL	TCR	RESISTANCE @ 0° C.
	DIN 43760	PLATINUM	.00385	100 OHMS (LEAVE BLANK)
PT5	DIN 43760	PLATINUM	.00385	500 OHMS
PT1	DIN 43760	PLATINUM	.00385	1000 OHMS (LT RANGE ONLY)
JIS	JIS-C-1604-81	PLATINUM	.003916	100 OHMS
SA	RC21-4-1966	PLATINUM	.003923	98.129 OHMS
CU		COPPER	.00427	10 OHMS (LT RANGE ONLY)
NI		NICKEL	.00672	120 OHMS

CODE	TEMPERATURE RANGE
LT	-58 to +500° F (-50 to +260° C.)
MT	-58 to +900° F (-50 to +482° C.)
	-292 to +932° F (-180 to +500° C) (LEAVE BLANK)
HT	-292 to +1202° F (-180 to +650° C) (NOTE 5)

CODE	SYSTEM
2W	2 WIRE (4 WIRE TOTAL WITH DUPLEX)
	3 WIRE (LEAVE BLANK)
4W	4 WIRE (8 TOTAL WITH DUPLEX)

CODE	ACCURACY
	ASTM E1137 CLASS B (LEAVE BLANK)
CLA	ASTM E1137 CLASS A

CODE	WELL TYPE
	OD-1
	OD-2
	ID
47	.750
48	.750

CODE	WELL MATERIAL
P	304 STAINLESS STEEL
Q	310 STAINLESS STEEL
R	316 STAINLESS STEEL
PLorRL	304or316 S. S. (LOW CARBON)
N	CARBON STEEL
J	INCONEL 600
H	HASTELLOY C276

CODE	"F" LENGTH
	IN INCHES (2.25" STD.)

CODE	"U" LENGTH
	IN INCHES

CODE	FLANGE SIZE
	SPECIFY

CODE	FLANGE RATING
	SPECIFY

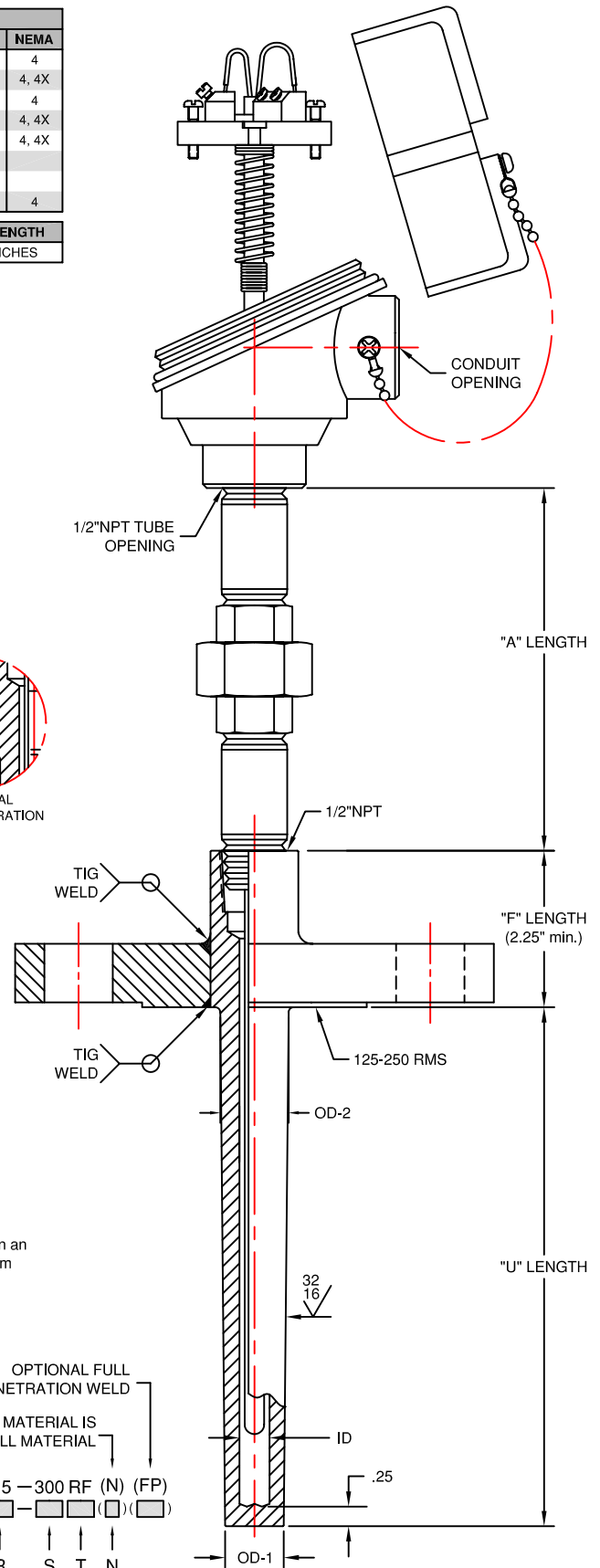
CODE	FLANGE TYPE
FF	FLAT FACE
RF	RAISED FACE
RJ	RING TYPE JOINT

Notes:

- (1) Standard Nipples - Steel, Schedule 40.
Standard Unions - Black Malleable Iron, 150#.
OPTIONAL STAINLESS STEEL
Nipples - 304 or 316 Stainless Steel, Schedule 40 or 80.
Unions - 304 or 316 Stainless Steel.
Example Ordering Code: 4AE 3/4 1/2 6(R or R80).
- (2) Rated NEC class 1, Groups B, C and D.
- (3) ATEX approved EEx d IIC, T6.
- (4) Contact factory for other sheaths and element types.
- (5) Standard in single construction, 3 wire, class B, Inconel sheath material.
- (6) For an item that does not fall within the catalog description an (SP) can be added to the ordering code as part of a custom construction.



OPTIONAL FULL PENETRATION WELD
USE ONLY IF FLANGE MATERIAL IS NOT THE SAME AS WELL MATERIAL



EXAMPLE: 4 AE $\frac{3}{4}$ - $\frac{1}{2}$ - 4 - D 14 PT5 LT 4W CLA - 47 R 2.25 - 12 - 1.5 - 300 RF (N) (FP)

A B C D E F G H J K L M N P Q R S T N



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SECTION INRD

DRILLED FLANGED WELL ASSEMBLIES TAPERED CONSTRUCTION

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Doc. No.: TE-CO010109-INRD-070

INDUSTRIAL RTD'S

A	CODE	HEAD EXTENSION
	2	NIPPLE (NOTE 1)
	4	NIPPLE/UNION/NIPPLE (NOTE 1)

B	CODE	CONNECTION HEAD		
		MATERIAL	TYPE	NEMA
	AN	ALUMINUM	WATER PROOF	4
	SN	STAINLESS STEEL	WATER PROOF, CORROSION RESISTANT	4, 4X
	AE	ALUMINUM	EXPLOSION PROOF (NOTE 2)	4
	SE	STAINLESS STEEL	EXPLOSION PROOF, CORROSION RESISTANT (NOTE 2)	4, 4X
	XD	ALUMINUM	EXPLOSION PROOF, FM, CSA APPROVED (NOTES 2 & 3)	4, 4X
	A	CAST IRON	WEATHER PROOF, RUGGED	
	L	POLYPROPYLENE	WEATHER PROOF, LIGHT WEIGHT	
	AX	ALUMINUM, LARGE DEVICE, EPOXY COATED	EXPLOSION PROOF, ATEX APPROVED (NOTE 3)	4

C	CODE	CONDUIT OPENING	D	CODE	TUBE OPENING	E	CODE	"A" LENGTH
		1/2 or 3/4NPT			1/2NPT			IN INCHES

F	CODE	STRUCTURE
		SINGLE (LEAVE BLANK)
	D	DUPLEX

G	CODE	SHEATH DIAMETER (STANDARD 316 STN. STL.) (NOTE 4)
	316	3/16" (.187)
	14	1/4" (.250)

CODE		ELEMENT TYPE (NOTE 4)			
		STANDARD	MATERIAL	TCR	RESISTANCE @ 0° C.
H	PT5	DIN 43760	PLATINUM	.00385	100 OHMS (LEAVE BLANK)
		DIN 43760	PLATINUM	.00385	500 OHMS
	PT1	DIN 43760	PLATINUM	.00385	1000 OHMS (LT RANGE ONLY)
		JIS-C-1604-81	PLATINUM	.003916	100 OHMS
	SA	RC21-4-1966	PLATINUM	.003923	98.129 OHMS
	CU		COPPER	.00427	10 OHMS (LT RANGE ONLY)
	NI		NICKEL	.00672	120 OHMS

J	CODE	TEMPERATURE RANGE
	LT	-58 to +500° F (-50 to +260° C.)
	MT	-58 to +900° F (-50 to +482° C.)
		-292 to +932° F (-180 to +500° C) (LEAVE BLANK)
	HT	-292 to +1202° F (-180 to +650° C) (NOTE 5)

K	CODE	SYSTEM
	2W	2 WIRE (4 WIRE TOTAL WITH DUPLEX)
		3 WIRE (LEAVE BLANK)
	4W	4 WIRE (8 TOTAL WITH DUPLEX)

L	CODE	ACCURACY
		ASTM E1137 CLASS B (LEAVE BLANK)
	CLA	ASTM E1137 CLASS A

M	CODE	WELL TYPE		
		OD-1	OD-2	ID
	42	.875	.875	.385
	43	.875	.875	.260

N	CODE	WELL MATERIAL
	P	304 STAINLESS STEEL
	Q	310 STAINLESS STEEL
	R	316 STAINLESS STEEL
	PLORL	304or316 S. S. (LOW CARBON)
	N	CARBON STEEL
	J	INCONEL 600
	H	HASTELLOY C276

P	CODE	"F" LENGTH
		IN INCHES (2.25" STD.)

Q	CODE	"U" LENGTH
		IN INCHES

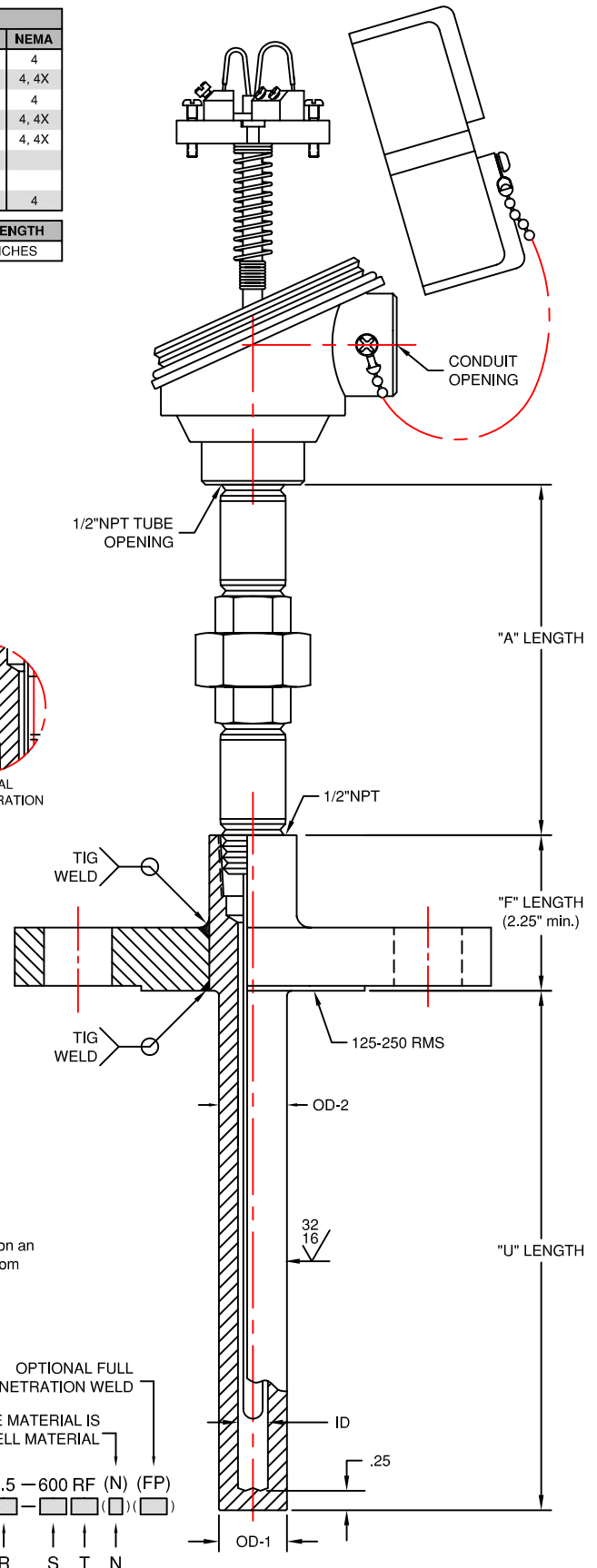
R	CODE	FLANGE SIZE
		SPECIFY

S	CODE	FLANGE RATING
		SPECIFY

T	CODE	FLANGE TYPE
	FF	FLAT FACE
	RF	RAISED FACE
	RJ	RING TYPE JOINT

Notes:

- (1) Standard Nipples - Steel, Schedule 40.
Standard Unions - Black Malleable Iron, 150#.
OPTIONAL STAINLESS STEEL
Nipples - 304 or 316 Stainless Steel, Schedule 40 or 80.
Unions - 304 or 316 Stainless Steel.
Example Ordering Code: 4AE 3/4 1/2 6(R or R80).
- (2) Rated NEC class 1, Groups B, C and D.
- (3) ATEX approved EEx d IIC, T6.
- (4) Contact factory for other sheaths and element types.
- (5) Standard in single construction, 3 wire, class B, Inconel sheath material.
- (6) For an item that does not fall within the catalog description an (SP) can be added to the ordering code as part of a custom construction.



EXAMPLE: 4 AE 3/4 - 1/2 - 4 - D 14 PT5 LT 4W CLA - 42 R 2.25 - 12 - 1.5 - 600 RF (N) (FP)

A B C D E F G H J K L M N P Q R S T N



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SECTION INRD

DRILLED FLANGED WELL ASSEMBLIES
STRAIGHT CONSTRUCTION

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Doc. No.: TE-CO010109-INRD-080

INDUSTRIAL RTD'S

A	CODE	HEAD EXTENSION
	2	NIPPLE (NOTE 1)
	4	NIPPLE/UNION/NIPPLE (NOTE 1)

B	CODE	CONNECTION HEAD		
		MATERIAL	TYPE	NEMA
	AN	ALUMINUM	WATER PROOF	4
	SN	STAINLESS STEEL	WATER PROOF, CORROSION RESISTANT	4, 4X
	AE	ALUMINUM	EXPLOSION PROOF (NOTE 2)	4
	SE	STAINLESS STEEL	EXPLOSION PROOF, CORROSION RESISTANT (NOTE 2)	4, 4X
	XD	ALUMINUM	EXPLOSION PROOF, FM, CSA APPROVED (NOTES 2 & 3)	4, 4X
	A	CAST IRON	WEATHER PROOF, RUGGED	
	L	POLYPROPYLENE	WEATHER PROOF, LIGHT WEIGHT	
	AX	ALUMINUM, LARGE DEVICE, EPOXY COATED	EXPLOSION PROOF, ATEX APPROVED (NOTE 3)	4

C	CODE	CONDUIT OPENING	D	CODE	TUBE OPENING	E	CODE	"A" LENGTH
		1/2 or 3/4NPT			1/2			IN INCHES

F	CODE	STRUCTURE
		SINGLE (LEAVE BLANK)
	D	DUPLEX

G	CODE	SHEATH DIAMETER (STANDARD 316 STN. STL.) (NOTE 4)
	316	3/16" (.187)
	14	1/4" (.250)

		ELEMENT TYPE (NOTE 4)			
H	CODE	STANDARD	MATERIAL	TCR	RESISTANCE @ 0° C.
	PT5	DIN 43760	PLATINUM	.00385	100 OHMS (LEAVE BLANK)
		DIN 43760	PLATINUM	.00385	500 OHMS
	PT1	DIN 43760	PLATINUM	.00385	1000 OHMS (LT RANGE ONLY)
		JIS-C-1604-81	PLATINUM	.003916	100 OHMS
	SA	RC21-4-1966	PLATINUM	.003923	98.129 OHMS
	CU		COPPER	.00427	10 OHMS (LT RANGE ONLY)
	NI		NICKEL	.00672	120 OHMS

J	CODE	TEMPERATURE RANGE
	LT	-58 to +500° F (-50 to +260° C.)
	MT	-58 to +900° F (-50 to +482° C.)
		-292 to +932° F (-180 to +500° C) (LEAVE BLANK)
	HT	-292 to +1202° F (-180 to +650° C) (NOTE 5)

K	CODE	SYSTEM
	2W	2 WIRE (4 WIRE TOTAL WITH DUPLEX)
		3 WIRE (LEAVE BLANK)
	4W	4 WIRE (8 TOTAL WITH DUPLEX)

L	CODE	ACCURACY
		ASTM E1137 CLASS B (LEAVE BLANK)
	CLA	ASTM E1137 CLASS A

M	CODE	WELL TYPE		
		OD-1	OD-2	ID
	432	.500	.875	.260

N	CODE	WELL MATERIAL
	P	304 STAINLESS STEEL
	Q	310 STAINLESS STEEL
	R	316 STAINLESS STEEL
	PLORL	304or316 S. S. (LOW CARBON)
	N	CARBON STEEL
	J	INCONEL 600
	H	HASTELLY C276

P	CODE	"F" LENGTH
		IN INCHES (2.25" STD.)

Q	CODE	"U" LENGTH
		IN INCHES

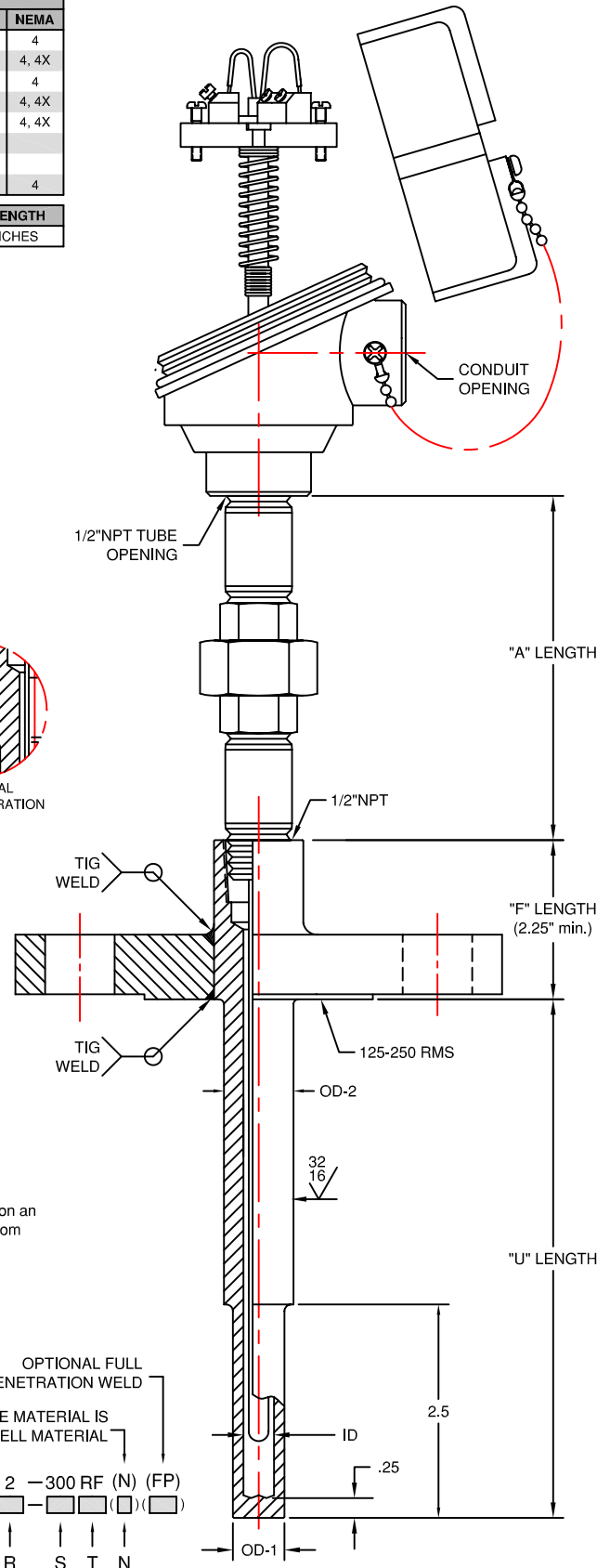
R	CODE	FLANGE SIZE
		SPECIFY

S	CODE	FLANGE RATING
		SPECIFY

T	CODE	FLANGE TYPE
	FF	FLAT FACE
	RF	RAISED FACE
	RJ	RING TYPE JOINT

Notes:

- (1) Standard Nipples - Steel, Schedule 40.
Standard Unions - Black Malleable Iron, 150#.
OPTIONAL STAINLESS STEEL
Nipples - 304 or 316 Stainless Steel, Schedule 40 or 80.
Unions - 304 or 316 Stainless Steel.
Example Ordering Code: 4AE 3/4 1/2 6(R or R80).
- (2) Rated NEC class 1, Groups B, C and D.
- (3) ATEX approved EEx d IIC, T6.
- (4) Contact factory for other sheaths and element types.
- (5) Standard in single construction, 3 wire, class B, Inconel sheath material.
- (6) For an item that does not fall within the catalog description an (SP) can be added to the ordering code as part of a custom construction.



EXAMPLE: 4 AE $\frac{3}{4}$ $\frac{1}{2}$ 4 - D 14 PT5 LT 4W CLA - 432 R 2.25 - 8 - 2 - 300 RF (N) (FP)

A B C D E F G H J K L M N P Q R S T N



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SECTION INRD

DRILLED FLANGED WELL ASSEMBLIES
STEPPED DOWN SHANK CONSTRUCTION

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Doc. No.: TE-CO010109-INRD-090

INDUSTRIAL RTD'S

A	CODE	HEAD EXTENSION
	2	NIPPLE (NOTE 1)
	4	NIPPLE/UNION/NIPPLE (NOTE 1)

B	CODE	CONNECTION HEAD		
		MATERIAL	TYPE	NEMA
	AN	ALUMINUM	WATER PROOF	4
	SN	STAINLESS STEEL	WATER PROOF, CORROSION RESISTANT	4, 4X
	AE	ALUMINUM	EXPLOSION PROOF (NOTE 2)	4
	SE	STAINLESS STEEL	EXPLOSION PROOF, CORROSION RESISTANT (NOTE 2)	4, 4X
	XD	ALUMINUM	EXPLOSION PROOF, FM, CSA APPROVED (NOTES 2 & 3)	4, 4X
	A	CAST IRON	WEATHER PROOF, RUGGED	
	L	POLYPROPYLENE	WEATHER PROOF, LIGHT WEIGHT	
	AX	ALUMINUM, LARGE DEVICE, EPOXY COATED	EXPLOSION PROOF, ATEX APPROVED (NOTE 3)	4

C	CODE	CONDUIT OPENING	D	CODE	TUBE OPENING	E	CODE	"A" LENGTH
		1/2 or 3/4NPT			1/2			IN INCHES

F	CODE	STRUCTURE
		SINGLE (LEAVE BLANK)
	D	DUPLEX

G	CODE	SHEATH DIAMETER (STANDARD 316 STN. STL.) (NOTE 4)
	316	3/16" (.187)
	14	1/4" (.250)

		ELEMENT TYPE (NOTE 4)			
H	CODE	STANDARD	MATERIAL	TCR	RESISTANCE @ 0° C.
	PT5	DIN 43760	PLATINUM	.00385	100 OHMS (LEAVE BLANK)
		DIN 43760	PLATINUM	.00385	500 OHMS
	PT1	DIN 43760	PLATINUM	.00385	1000 OHMS (LT RANGE ONLY)
		JIS C-1604-81	PLATINUM	.003916	100 OHMS
	SA	RC21-4-1966	PLATINUM	.003923	98.129 OHMS
	CU		COPPER	.00427	10 OHMS (LT RANGE ONLY)
	NI		NICKEL	.00672	120 OHMS

J	CODE	TEMPERATURE RANGE
	LT	-58 to +500° F (-50 to +260° C.)
	MT	-58 to +900° F (-50 to +482° C.)
		-292 to +932° F (-180 to +500° C) (LEAVE BLANK)
	HT	-292 to +1202° F (-180 to +650° C) (NOTE 5)

K	CODE	SYSTEM
	2W	2 WIRE (4 WIRE TOTAL WITH DUPLEX)
		3 WIRE (LEAVE BLANK)
	4W	4 WIRE (8 TOTAL WITH DUPLEX)

L	CODE	ACCURACY
		ASTM E1137 CLASS B (LEAVE BLANK)
	CLA	ASTM E1137 CLASS A

M	CODE	WELL TYPE				
		OD-1	OD-2	ID	FLANGE FACE DIA.	NECK DIAMETER
	41	.750	.875	.385	2.0	1.315
	44	.750	.875	.385	2.88	1.90
	411	.750	.875	.260	2.0	1.315
	441	.750	.875	.260	2.88	1.90

N	CODE	WELL MATERIAL
	P	304 STAINLESS STEEL
	Q	310 STAINLESS STEEL
	R	316 STAINLESS STEEL
	PLorRL	304or316 S. S. (LOW CARBON)
	N	CARBON STEEL
	J	INCONEL 600
	H	HASTELLOY C276

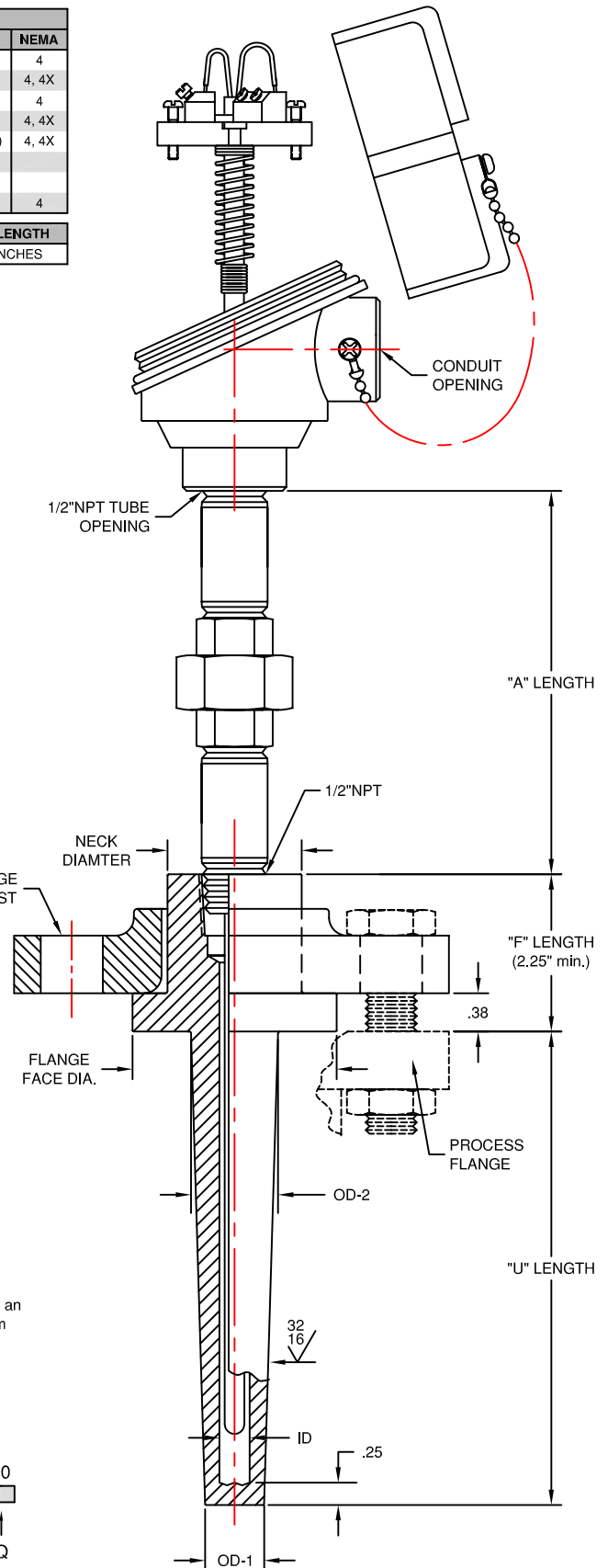
P	CODE	"F" LENGTH
		IN INCHES (2.25" STD.)

Q	CODE	"U" LENGTH
		IN INCHES

- Notes:
- (1) Standard Nipples - Steel, Schedule 40.
Standard Unions - Black Malleable Iron, 150#.
OPTIONAL STAINLESS STEEL
Nipples - 304 or 316 Stainless Steel, Schedule 40 or 80.
Unions - 304 or 316 Stainless Steel.
Example Ordering Code: 4AE 3/4 - 1/2 - 4 - D 14 PT5 LT 4W CLA - 44 R 2.25 - 10
 - (2) Rated NEC class 1, Groups B, C and D.
 - (3) ATEX approved EEx d IIC, T6.
 - (4) Contact factory for other sheaths and element types.
 - (5) Standard in single construction, 3 wire, class B, Inconel sheath material.
 - (6) For an item that does not fall within the catalog description an (SP) can be added to the ordering code as part of a custom construction.

EXAMPLE: 4 AE 3/4 - 1/2 - 4 - D 14 PT5 LT 4W CLA - 44 R 2.25 - 10

A B C D E F G H J K L M N P Q



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SECTION INRD DRILLED VAN STONE WELL ASSEMBLIES TAPERED CONSTRUCTION 1" & 1 1/2" FLANGE CONNECTION

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Doc. No.: TE-CO010109-INRD-100

INDUSTRIAL RTD'S

A	CODE	HEAD EXTENSION
	2	NIPPLE (NOTE 1)
	4	NIPPLE/UNION/NIPPLE (NOTE 1)

B	CODE	MATERIAL	TYPE	NEMA
	AN	ALUMINUM	WATER PROOF	4
	SN	STAINLESS STEEL	WATER PROOF, CORROSION RESISTANT	4, 4X
	AE	ALUMINUM	EXPLOSION PROOF (NOTE 2)	4
	SE	STAINLESS STEEL	EXPLOSION PROOF, CORROSION RESISTANT (NOTE 2)	4, 4X
	XD	ALUMINUM	EXPLOSION PROOF, FM, CSA APPROVED (NOTES 2 & 3)	4, 4X
	A	CAST IRON	WEATHER PROOF, RUGGED	
	L	POLYPROPYLENE	WEATHER PROOF, LIGHT WEIGHT	
	AX	ALUMINUM, LARGE DEVICE, EPOXY COATED	EXPLOSION PROOF, ATEX APPROVED (NOTE 3)	4

C	CODE	CONDUIT OPENING	D	CODE	TUBE OPENING	E	CODE	"A" LENGTH
		1/2 or 3/4NPT			1/2			IN INCHES

F	CODE	STRUCTURE
		SINGLE (LEAVE BLANK)
	D	DUPLEX

G	CODE	SHEATH DIAMETER (STANDARD 316 STN. STL.) (NOTE 4)
	316	3/16" (.187)
	14	1/4" (.250)

H	CODE	STANDARD	MATERIAL	TCR	RESISTANCE @ 0° C.
		DIN 43760	PLATINUM	.00385	100 OHMS (LEAVE BLANK)
	PT5	DIN 43760	PLATINUM	.00385	500 OHMS
	PT1	DIN 43760	PLATINUM	.00385	1000 OHMS (LT RANGE ONLY)
	JIS	JIS-C-1604-81	PLATINUM	.003916	100 OHMS
	SA	RC21-4-1966	PLATINUM	.003923	98.129 OHMS
	CU		COPPER	.00427	10 OHMS (LT RANGE ONLY)
	NI		NICKEL	.00672	120 OHMS

J	CODE	TEMPERATURE RANGE
	LT	-58 to +500° F (-50 to +260° C.)
	MT	-58 to +900° F (-50 to +482° C.)
		-292 to +932° F (-180 to +500° C) (LEAVE BLANK)
	HT	-292 to +1202° F (-180 to +650° C) (NOTE 5)

K	CODE	SYSTEM
	2W	2 WIRE (4 WIRE TOTAL WITH DUPLEX)
		3 WIRE (LEAVE BLANK)
	4W	4 WIRE (8 TOTAL WITH DUPLEX)

L	CODE	ACCURACY
		ASTM E1137 CLASS B (LEAVE BLANK)
	CLA	ASTM E1137 CLASS A

	CODE	WELL TYPE				
		OD-1	OD-2	ID	FLANGE FACE DIA.	NECK DIAMETER
M	45	.875	.875	.385	2.0	1.315
	46	.875	.875	.385	2.88	1.90
	451	.875	.875	.260	2.0	1.315
	461	.875	.875	.260	2.88	1.90

N	CODE	WELL MATERIAL
	P	304 STAINLESS STEEL
	Q	310 STAINLESS STEEL
	R	316 STAINLESS STEEL
	PLorRL	304or316 S. S. (LOW CARBON)
	N	CARBON STEEL
	J	INCONEL 600
	H	HASTELLOY C276

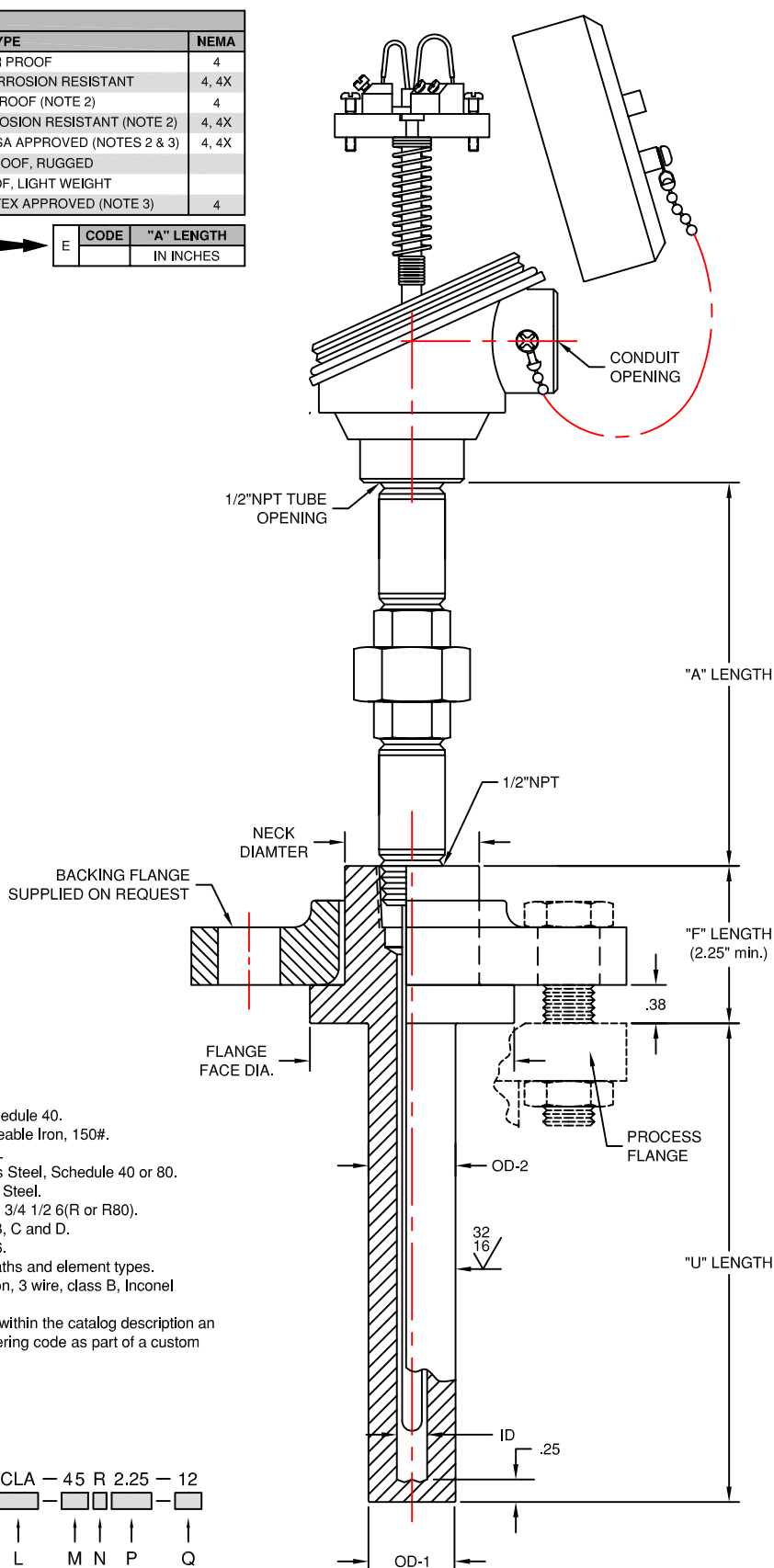
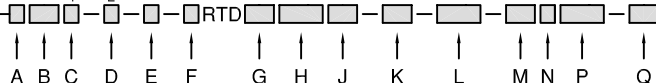
P	CODE	"F" LENGTH
		IN INCHES (2.25" STD.)

Q	CODE	"U" LENGTH
		IN INCHES

Notes:

- (1) Standard Nipples - Steel, Schedule 40.
Standard Unions - Black Malleable Iron, 150#.
OPTIONAL STAINLESS STEEL
Nipples - 304 or 316 Stainless Steel, Schedule 40 or 80.
Unions - 304 or 316 Stainless Steel.
Example Ordering Code: 4AE 3/4 1/2 6(R or R80).
- (2) Rated NEC class 1, Groups B, C and D.
- (3) ATEX approved EEx d IIC, T6.
- (4) Contact factory for other sheaths and element types.
- (5) Standard in single construction, 3 wire, class B, Inconel sheath material.
- (6) For an item that does not fall within the catalog description an (SP) can be added to the ordering code as part of a custom construction.

EXAMPLE: 4 AE 3/4 - 1/2 - 4 - D 14 PT5 LT 4W CLA - 45 R 2.25 - 12



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SECTION INRD

DRILLED VAN STONE WELL ASSEMBLIES
STRAIGHT CONSTRUCTION
1" & 1 1/2" FLANGE CONNECTION

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Doc. No.: TE-CO010109-INRD-110

INDUSTRIAL RTD'S

CODE	HEAD EXTENSION
A	(NO EXTENSION)
3	NIPPLE/UNION/ (NOTE 1)

CODE	MATERIAL	TYPE	NEMA
AN	ALUMINUM	WATER PROOF	4
SN	STAINLESS STEEL	WATER PROOF, CORROSION RESISTANT	4, 4X
AE	ALUMINUM	EXPLOSION PROOF (NOTE 2)	4
SE	STAINLESS STEEL	EXPLOSION PROOF, CORROSION RESISTANT (NOTE 2)	4, 4X
XD	ALUMINUM	EXPLOSION PROOF, FM, CSA APPROVED (NOTES 2 & 3)	4, 4X
A	CAST IRON	WEATHER PROOF, RUGGED	
AX	ALUMINUM, LARGE DEVICE, EPOXY COATED	EXPLOSION PROOF, ATEX APPROVED (NOTE 3)	4

CODE	CONDUIT OPENING	CODE	TUBE OPENING	CODE	"A" LENGTH
	1/2 or 3/4NPT	D	1/2 or 3/4NPT (NOTE 4)	E	IN INCHES

CODE	STRUCTURE
F	SINGLE (LEAVE BLANK)
D	DUPLEX

CODE	SHEATH DIAMETER (STANDARD 316 STN. STL.) (NOTE 4)
316	3/16" (.187)
14	1/4" (.250)

CODE	STANDARD	MATERIAL	TCR	RESISTANCE @ 0° C.
PT5	DIN 43760	PLATINUM	.00385	100 OHMS (LEAVE BLANK)
PT1	DIN 43760	PLATINUM	.00385	500 OHMS
JIS	JIS-C-1604-81	PLATINUM	.003916	1000 OHMS (LT RANGE ONLY)
SA	RC21-4-1966	PLATINUM	.003923	100 OHMS
CU		COPPER	.00427	98,129 OHMS
NI		NICKEL	.00672	10 OHMS (LT RANGE ONLY)
				120 OHMS

CODE	TEMPERATURE RANGE
LT	-58 to +500° F (-50 to +260° C.)
MT	-58 to +900° F (-50 to +482° C.)
HT	-292 to +932° F (-180 to +500° C) (LEAVE BLANK)
	-292 to +1202° F (-180 to +650° C) (NOTE 6)

CODE	SYSTEM
2W	2 WIRE (4 WIRE TOTAL WITH DUPLEX)
	3 WIRE (LEAVE BLANK)
4W	4 WIRE (8 TOTAL WITH DUPLEX)

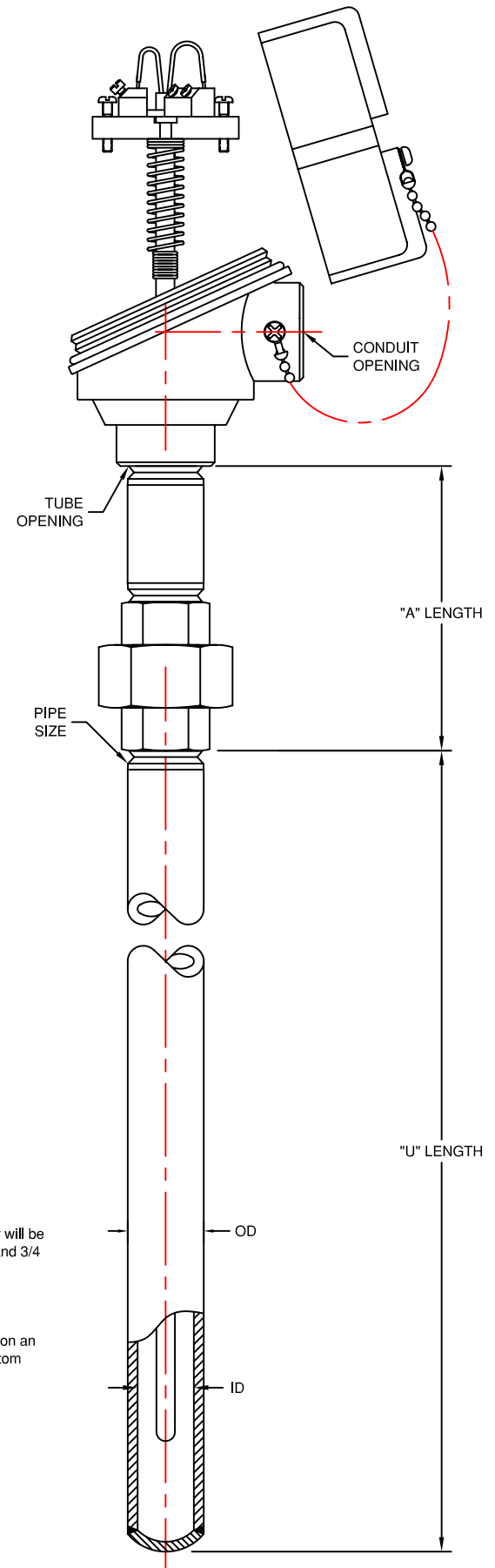
CODE	ACCURACY
L	ASTM E1137 CLASS B (LEAVE BLANK)
CLA	ASTM E1137 CLASS A

M	CODE	PROTECTION TUBE TYPE	
		TUBE SIZE	OD
	51	1/4" NPS	0.540
	52	1/2" NPS	0.840
	53	3/4" NPS	1.050
	54	1" NPS	1.315

N	CODE	TUBE SCHEDULE (INSIDE DIAMETER)			
		1/4"NPT	1/2"NPT	3/4"NPT	1"NPT
	40	0.364	0.622	0.824	1.049
	80	0.302	0.546	0.742	0.957
	160	N/A	0.464	0.612	0.815
	XXS	N/A	N/A	0.434	1.315

CODE	WELL MATERIAL
P	304 STAINLESS STEEL
Q	310 STAINLESS STEEL
R	316 STAINLESS STEEL
PLorRL	304or316 S. S. (LOW CARBON)
N	CARBON STEEL
J	INCONEL 600
H	HASTELLOY C276

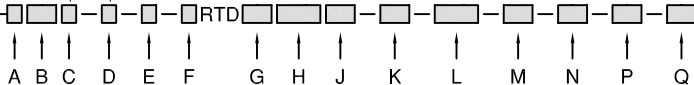
CODE	"U" LENGTH
Q	IN INCHES



Notes:

- (1) Standard Nipples - Steel, Schedule 40.
Standard Unions - Black Malleable Iron, 150#.
OPTIONAL STAINLESS STEEL
Nipples - 304 or 316 Stainless Steel, Schedule 40 or 80.
Unions - 304 or 316 Stainless Steel.
Example Ordering Code: 3AE 3/4 1/2 6(R or R80).
- (2) Rated NEC class 1, Groups B, C and D.
- (3) ATEX approved EEx d IIC, T6.
- (4) For 1/4" and 1" pipe size a reducing bushing or enlarger will be used to fit tube opening, specify 1/2 for 1/4" pipe size and 3/4 for 1" pipe size.
- (5) Contact factory for other sheaths and element types.
- (6) Standard in single construction, 3 wire, class B, Inconel sheath material.
- (7) For an item that does not fall within the catalog description an (SP) can be added to the ordering code as part of a custom construction.

EXAMPLE: 3 AE 3/4 - 3 - D 14 PT5 LT 4W CLA - 53 - 40 - Q - 36



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SECTION INRD

PIPE WELL ASSEMBLIES PLAIN CONSTRUCTION

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Doc. No.: TE-CO010109-INRD-120

INDUSTRIAL RTD'S

CODE	HEAD EXTENSION
1	(NO EXTENSION, 0 "A" LENGTH)
3	NIPPLE/UNION/ (NOTE 1)

CODE	MATERIAL	TYPE	NEMA
AN	ALUMINUM	WATER PROOF	4
SN	STAINLESS STEEL	WATER PROOF, CORROSION RESISTANT	4, 4X
AE	ALUMINUM	EXPLOSION PROOF (NOTE 2)	4
SE	STAINLESS STEEL	EXPLOSION PROOF, CORROSION RESISTANT (NOTE 2)	4, 4X
XD	ALUMINUM	EXPLOSION PROOF, FM, CSA APPROVED (NOTES 2 & 3)	4, 4X
A	CAST IRON	WEATHER PROOF, RUGGED	
AX	ALUMINUM, LARGE DEVICE, EPOXY COATED	EXPLOSION PROOF, ATEX APPROVED (NOTE 3)	4

CODE	CONDUIT OPENING	CODE	TUBE OPENING	CODE	"A" LENGTH
	1/2 or 3/4NPT	D	1/2 or 3/4NPT (NOTE 4)	E	IN INCHES

CODE	STRUCTURE
	SINGLE (LEAVE BLANK)
D	DUPLEX

CODE	SHEATH DIAMETER (STANDARD 316 STN. STL.) (NOTE 4)
316	3/16" (.187)
14	1/4" (.250)

CODE	STANDARD	MATERIAL	TCR	RESISTANCE @ 0° C.
PT5	DIN 43760	PLATINUM	.00385	100 OHMS (LEAVE BLANK)
PT1	DIN 43760	PLATINUM	.00385	500 OHMS
PT1	DIN 43760	PLATINUM	.00385	1000 OHMS (LT RANGE ONLY)
JIS	JIS-C-1604-81	PLATINUM	.003916	100 OHMS
SA	RC21-4-1966	PLATINUM	.003923	98.129 OHMS
CU		COPPER	.00427	10 OHMS (LT RANGE ONLY)
NI		NICKEL	.00672	120 OHMS

CODE	TEMPERATURE RANGE
LT	-58 to +500° F (-50 to +260° C.)
MT	-58 to +900° F (-50 to +482° C.)
	-292 to +932° F (-180 to +500° C) (LEAVE BLANK)
HT	-292 to +1202° F (-180 to +650° C) (NOTE 6)

CODE	SYSTEM
2W	2 WIRE (4 WIRE TOTAL WITH DUPLEX)
	3 WIRE (LEAVE BLANK)
4W	4 WIRE (8 TOTAL WITH DUPLEX)

CODE	ACCURACY
	ASTM E1137 CLASS B (LEAVE BLANK)
CLA	ASTM E1137 CLASS A

CODE	TUBE SIZE	PROCESS NPT	OD
601	1/4" NPS	1/2" NPT	0.540
602		3/4" NPT	
603		1" NPT	
606		3/4" NPT	
607	1/2" NPS	1" NPT	0.840
608		1 1/4" NPT	
610		1" NPT	
611	3/4" NPS	1 1/4" NPT	1.050
612		1 1/2" NPT	
613		1 1/4" NPT	
614	1" NPS	1 1/2" NPT	1.315

CODE	1/4"NPT	1/2"NPT	3/4"NPT	1"NPT
40	0.364	0.622	0.824	1.049
80	0.302	0.546	0.742	0.957
160	N/A	0.464	0.612	0.815
XXS	N/A	N/A	0.434	0.599

CODE	WELL MATERIAL
P	304 STAINLESS STEEL
Q	310 STAINLESS STEEL
R	316 STAINLESS STEEL
PLorRL	304or316 S. S. (LOW CARBON)
N	CARBON STEEL
J	INCONEL 600
H	HASTELLOY C276

CODE	"F" LENGTH
	IN INCHES (3" STD.)

CODE	"U" LENGTH
	IN INCHES

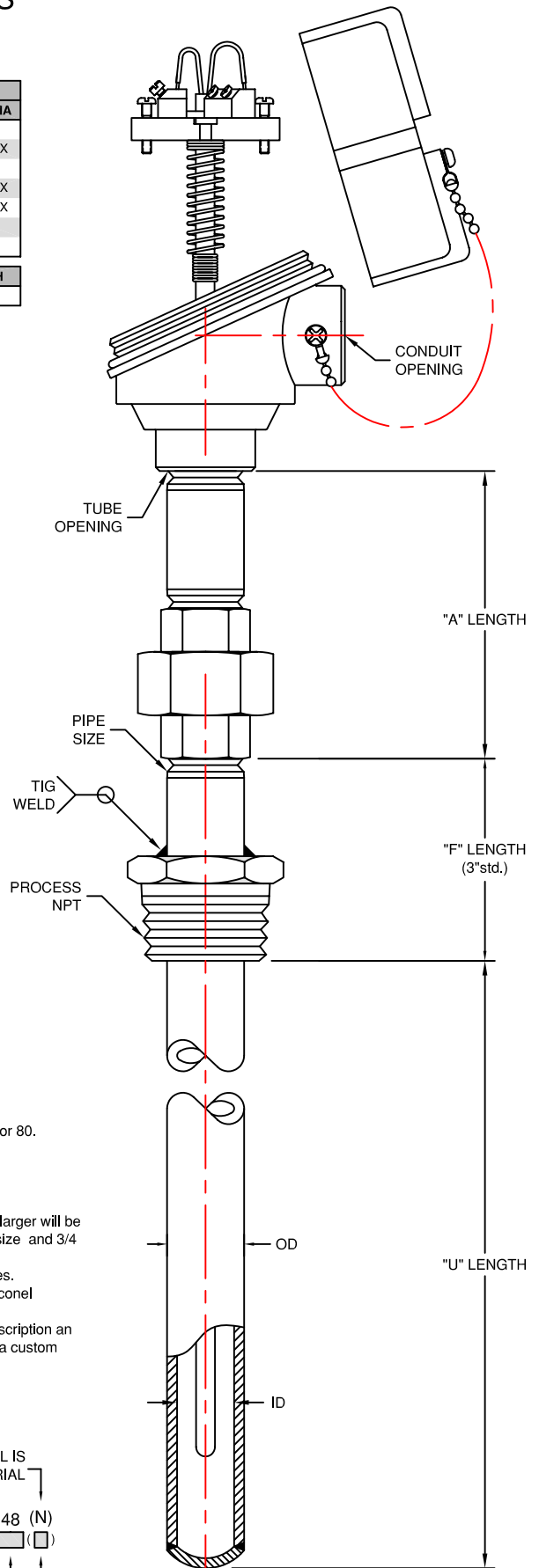
Notes:

- (1) Standard Nipples - Steel, Schedule 40.
Standard Unions - Black Malleable Iron, 150#.
- (2) Rated NEC class 1, Groups B, C and D.
- (3) ATEX approved EEx d IIC, T6.
- (4) For 1/4" and 1" pipe size a reducing bushing or enlarger will be used to fit tube opening, specify 1/2 for 1/4" pipe size and 3/4 for 1" pipe size.
- (5) Contact factory for other sheaths and element types.
- (6) Standard in single construction, 3 wire, class B, Inconel sheath material.
- (7) For an item that does not fall within the catalog description an (SP) can be added to the ordering code as part of a custom construction.

USE ONLY IF BUSHING MATERIAL IS NOT THE SAME AS TUBE MATERIAL

EXAMPLE: 3 AE 3/4 - 3/4 - 3 - D 14 PT5 LT 4W CLA - 611 - 80 - R - 3 - 48 (N)

A B C D E F G H J K L M N P Q R P



THERMO ELECTRIC

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SECTION INRD

PIPE WELL ASSEMBLIES THREADED PROCESS CONNECTION

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Doc. No.: TE-CO010109-INRD-130

INDUSTRIAL RTD'S

CODE	HEAD EXTENSION
A 1	(NO EXTENSION, 0" A" LENGTH)
3	NIPPLE/UNION/ (NOTE 1)

CODE	MATERIAL	CONNECTION HEAD TYPE	NEMA
AN	ALUMINUM	WATER PROOF	4
SN	STAINLESS STEEL	WATER PROOF, CORROSION RESISTANT	4, 4X
AE	ALUMINUM	EXPLOSION PROOF (NOTE 2)	4
SE	STAINLESS STEEL	EXPLOSION PROOF, CORROSION RESISTANT (NOTE 2)	4, 4X
XD	ALUMINUM	EXPLOSION PROOF, FM, CSA APPROVED (NOTES 2 & 3)	4, 4X
A	CAST IRON	WEATHER PROOF, RUGGED	
AX	ALUMINUM, LARGE DEVICE, EPOXY COATED	EXPLOSION PROOF, ATEX APPROVED (NOTE 3)	4

CODE	CONDUIT OPENING	D CODE	TUBE OPENING	E CODE	"A" LENGTH
	1/2 or 3/4NPT		1/2 or 3/4NPT (NOTE 4)		IN INCHES

CODE	STRUCTURE
F	SINGLE (LEAVE BLANK)
D	DUPLEX

CODE	SHEATH DIAMETER (STANDARD 316 STN. STL.) (NOTE 4)
316	3/16" (.187)
14	1/4" (.250)

CODE	STANDARD	MATERIAL	TCR	RESISTANCE @ 0° C.
PT5	DIN 43760	PLATINUM	.00385	100 OHMS (LEAVE BLANK)
PT1	DIN 43760	PLATINUM	.00385	500 OHMS
JIS	JIS-C-1604-81	PLATINUM	.003916	1000 OHMS (LT RANGE ONLY)
SA	RC21-4-1966	PLATINUM	.003923	100 OHMS
CU		COPPER	.00427	98,129 OHMS
NI		NICKEL	.00672	10 OHMS (LT RANGE ONLY)
				120 OHMS

CODE	TEMPERATURE RANGE
LT	-58 to +500° F (-50 to +260° C.)
MT	-58 to +900° F (-50 to +482° C.)
	-292 to +932° F (-180 to +500° C) (LEAVE BLANK)
HT	-292 to +1202° F (-180 to +650° C) (NOTE 6)

CODE	SYSTEM
2W	2 WIRE (4 WIRE TOTAL WITH DUPLEX)
	3 WIRE (LEAVE BLANK)
4W	4 WIRE (8 TOTAL WITH DUPLEX)

CODE	ACCURACY
CLA	ASTM E1137 CLASS B (LEAVE BLANK)
	ASTM E1137 CLASS A

CODE	PROTECTION TUBE TYPE
TUBE SIZE	OD
81	1/4" NPS 0.540
82	1/2" NPS 0.840
83	3/4" NPS 1.050
84	1" NPS 1.315

N	CODE	TUBE SCHEDULE (INSIDE DIAMETER)			
		1/4"NPT	1/2"NPT	3/4"NPT	1"NPT
	40	0.364	0.622	0.824	1.049
	80	0.302	0.546	0.742	0.957
	160	N/A	0.464	0.612	0.815
XXS	N/A	N/A	0.434	0.599	

CODE	WELL MATERIAL
P	304 STAINLESS STEEL
Q	316 STAINLESS STEEL
R	316 STAINLESS STEEL
PLorRL	304or316 S. S. (LOW CARBON)
N	CARBON STEEL
J	INCONEL 600
H	HASTELLOY C276

CODE	"F" LENGTH
	IN INCHES (2" STD.)

CODE	"U" LENGTH
	IN INCHES

CODE	FLANGE SIZE
	SPECIFY

CODE	FLANGE RATING
	SPECIFY

CODE	FLANGE TYPE
FF	FLAT FACE
RF	RAISED FACE
RJ	RING TYPE JOINT

Notes:

- Standard Nipples - Steel, Schedule 40.
Standard Unions - Black Malleable Iron, 150#.
OPTIONAL STAINLESS STEEL
Nipples - 304 or 316 Stainless Steel, Schedule 40 or 80.
Unions - 304 or 316 Stainless Steel.
Example Ordering Code: 3AE 3/4 1/2 6(R or R80).
- Rated NEC class 1, Groups B, C and D.
- ATEX approved EEx d IIC, T6.
- For 1/4" and 1" pipe size a reducing bushing or enlarger will be used to fit tube opening, specify 1/2 for 1/4" pipe size and 3/4 for 1" pipe size.
- Contact factory for other sheaths and element types.
- Standard in single construction, 3 wire, class B, Inconel sheath material.
- For an item that does not fall within the catalog description an (SP) can be added to the ordering code as part of a custom construction.

EXAMPLE:

3 SN 3/4 - 3/4 - 2 - D 14 PT5 LT 4W CLA - 83 - 80 - Q - 2 - 42 - 1.5 - 300 RF (N) (FP)

A B C D E F G H J K L M N Q N P Q R S Q



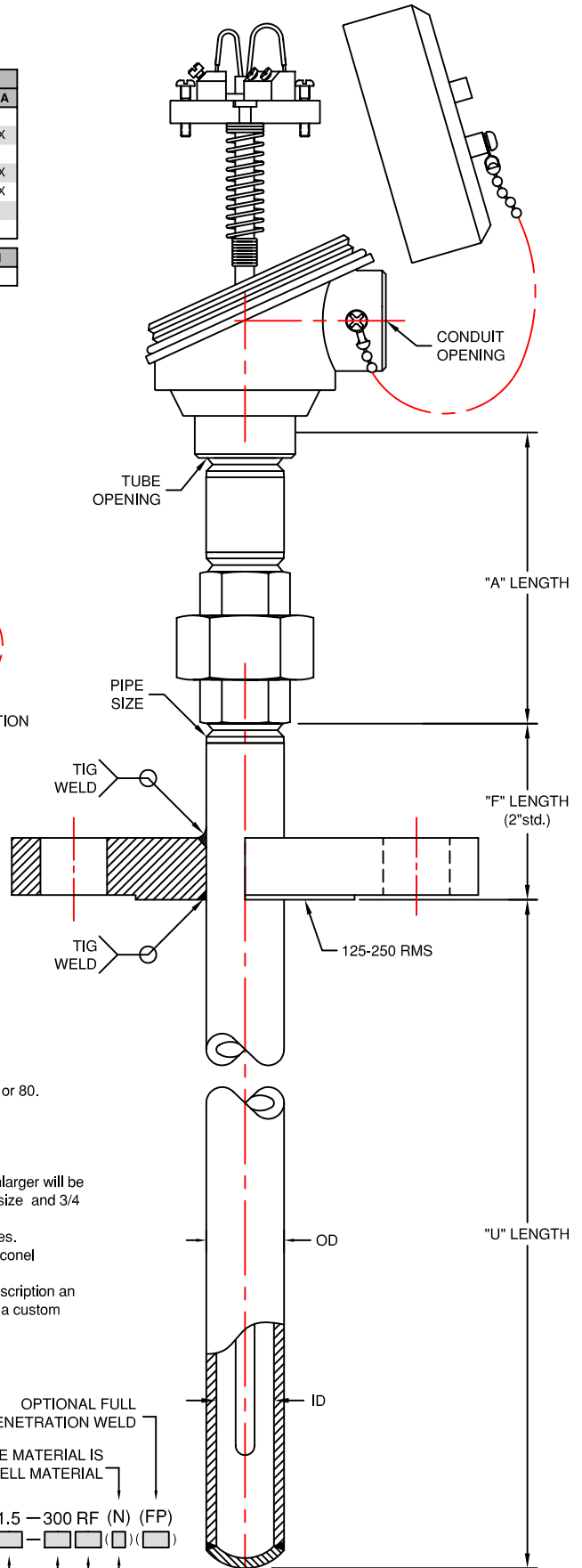
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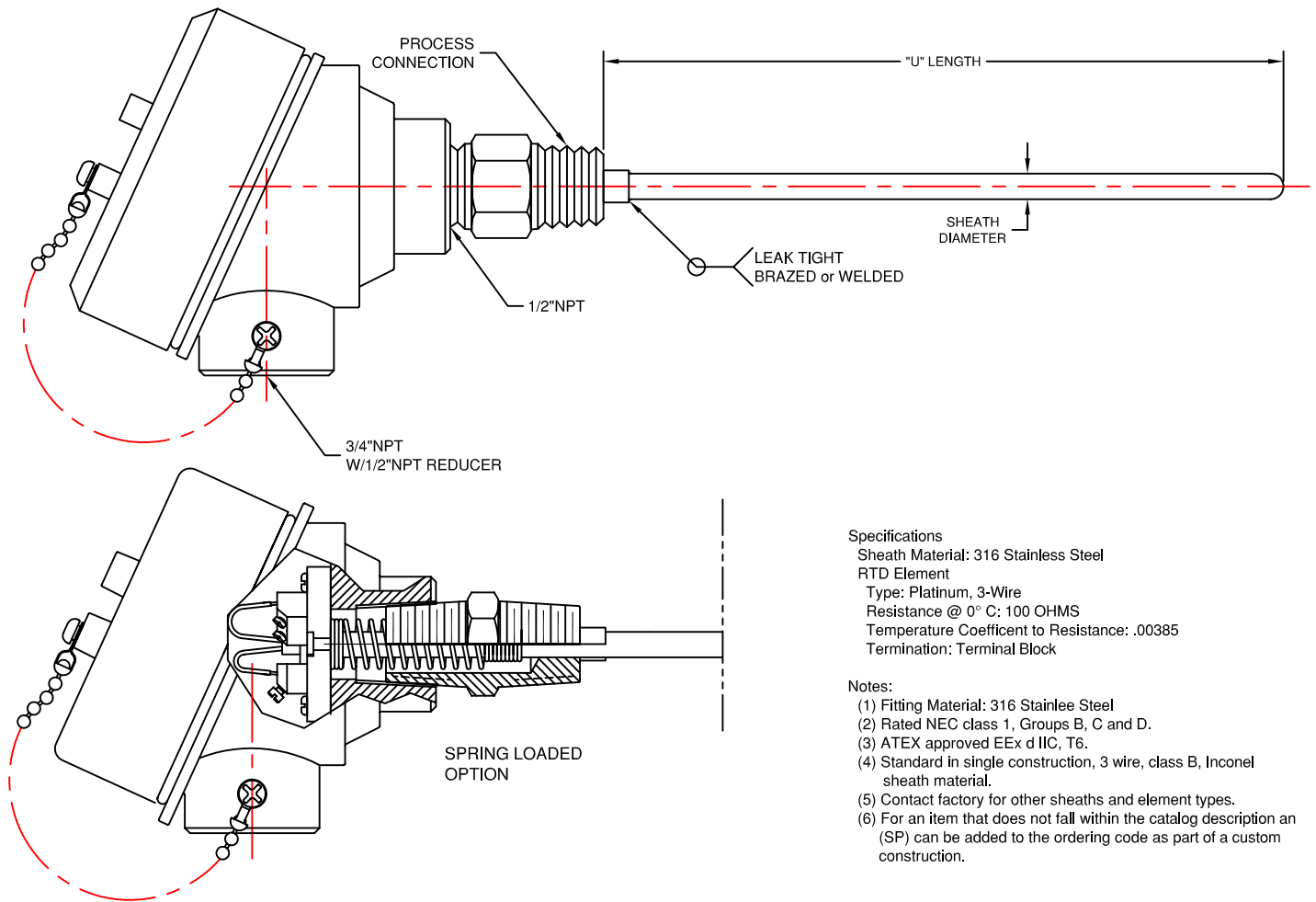
PIPE WELL ASSEMBLIES FLANGED PROCESS CONNECTION

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Doc. No.: TE-CO010109-INRD-140



INDUSTRIAL RTD'S



Specifications
 Sheath Material: 316 Stainless Steel
 RTD Element
 Type: Platinum, 3-Wire
 Resistance @ 0° C: 100 OHMS
 Temperature Coefficient to Resistance: .00385
 Termination: Terminal Block

Notes:
 (1) Fitting Material: 316 Stainless Steel
 (2) Rated NEC class 1, Groups B, C and D.
 (3) ATEX approved EEx d IIC, T6.
 (4) Standard in single construction, 3 wire, class B, Inconel sheath material.
 (5) Contact factory for other sheaths and element types.
 (6) For an item that does not fall within the catalog description an (SP) can be added to the ordering code as part of a custom construction.

ORDERING CODE:

CODE	SHEATH DIAMETER (NOTE 5)
18	1/8" (.125)
316	3/16" (.187)
14	1/4" (.250)

CODE	PROCESS CONNECTION
1/8	1/8"NPT
1/4	1/4"NPT
1/2	1/2"NPT

CODE	STRUCTURE
S	SINGLE CONSTRUCTION
D	DUPLEX CONSTRUCTION

CODE	ACCURACY
	ASTM E1137 CLASS B (LEAVE BLANK)
CLA	ASTM E1137 CLASS A

RTD16384-	SHEATH DIAMETER	TEMPERATURE RANGE	"U" LENGTH	PROCESS CONNECTION	HEAD TYPE	SINGLE/DUPLEX	SYSTEM	ACCURACY	SPRING LOADED
	14	CE	12	1/2	SN	S	4W	CLA	SL

CODE	"U" LENGTH
	IN INCHES

CODE	SYSTEM
2W	2 WIRE (4 WIRE TOTAL WITH DUPLEX)
	3 WIRE (LEAVE BLANK)
4W	4 WIRE (8 TOTAL WITH DUPLEX)

CODE	OPTIONAL
SL	SPRING LOADED

CODE	TEMPERATURE RANGE
LT	-58 to +500° F (-50 to +260° C.)
MT	-58 to +900° F (-50 to +482° C.)
CE	-292 to +932° F (-180 to +500° C)
HT	-292 to +1202° F (-180 to +650° C) (NOTE 4)

CONNECTION HEAD			
CODE	MATERIAL	TYPE	NEMA
AN	ALUMINUM	WATER PROOF	4
SN	STAINLESS STEEL	WATER PROOF, CORROSION RESISTANT	4, 4X
AE	ALUMINUM	EXPLOSION PROOF (NOTE 2)	4
SE	STAINLESS STEEL	EXPLOSION PROOF, CORROSION RESISTANT (NOTE 2)	4, 4X
XD	ALUMINUM	EXPLOSION PROOF, FM, CSA APPROVED (NOTES 2 & 3)	4, 4X
A	CAST IRON	WEATHER PROOF, RUGGED	
L	POLYPROPYLENE	WEATHER PROOF, LIGHT WEIGHT	
AX	ALUMINUM, LARGE DEVICE, EPOXY COATED	EXPLOSION PROOF, ATEX APPROVED (NOTE 3)	4



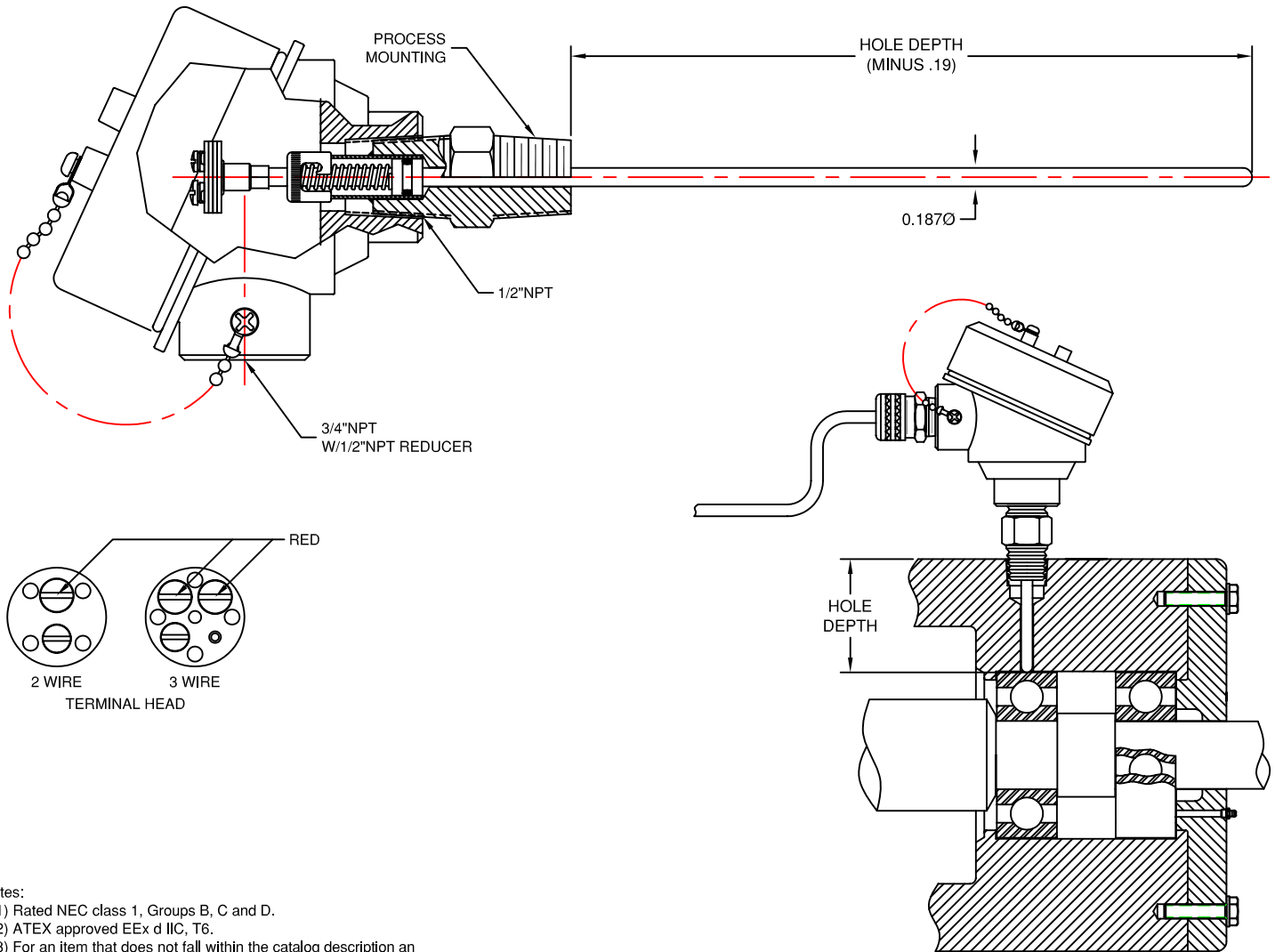
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SECTION INRD CERAMOCOUPLES® FOR AN RTD

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Doc. No.: TE-CO010109-INRD-150

INDUSTRIAL RTD'S



- Notes:
- (1) Rated NEC class 1, Groups B, C and D.
 - (2) ATEX approved EEx d IIC, T6.
 - (3) For an item that does not fall within the catalog description an (SP) can be added to the ordering code as part of a custom construction.

CODE	HOLE DEPTH	CODE	PROCESS MOUNTING	CODE	SYSTEM	CODE	ACCURACY
	IN INCHES	1/4	1/4\"NPT	2W	2 WIRE	CLA	ASTM E1137 CLASS A
		3/8	3/8\"NPT		3 WIRE (LEAVE BLANK)		ASTM E1137 CLASS B (LEAVE BLANK)
		1/2	1/2\"NPT				

ORDERING CODE:

RTD29610	HOLE DEPTH	PROCESS MOUNTING	HEAD TYPE	SYSTEM	ACCURACY
	6.5	1/2	AN		CLA

CODE	MATERIAL	CONNECTION HEAD TYPE	NEMA
AN	ALUMINUM	WATER PROOF	4
SN	STAINLESS STEEL	WATER PROOF, CORROSION RESISTANT	4, 4X
AE	ALUMINUM	EXPLOSION PROOF (NOTE 1)	4
SE	STAINLESS STEEL	EXPLOSION PROOF, CORROSION RESISTANT (NOTE 1)	4, 4X
XD	ALUMINUM	EXPLOSION PROOF, FM, CSA APPROVED (NOTES 1 & 2)	4, 4X
AX	ALUMINUM, LARGE DEVICE, EPOXY COATED	EXPLOSION PROOF, ATEX APPROVED (NOTE 2)	4

Specifications:
 RTD Element
 Type: Platinum, 3-Wire
 Resistance @ 0° C: 100 OHMS
 Temperature Coefficient to Resistance: .00385
 Sheath Material: 316 Stainless Steel
 Fitting Assembly Material: Stainless Steel.
 O-Ring: Viton.
 Service Temperature: 400° F(205° C), Intermitting to 450 °F(260° C).



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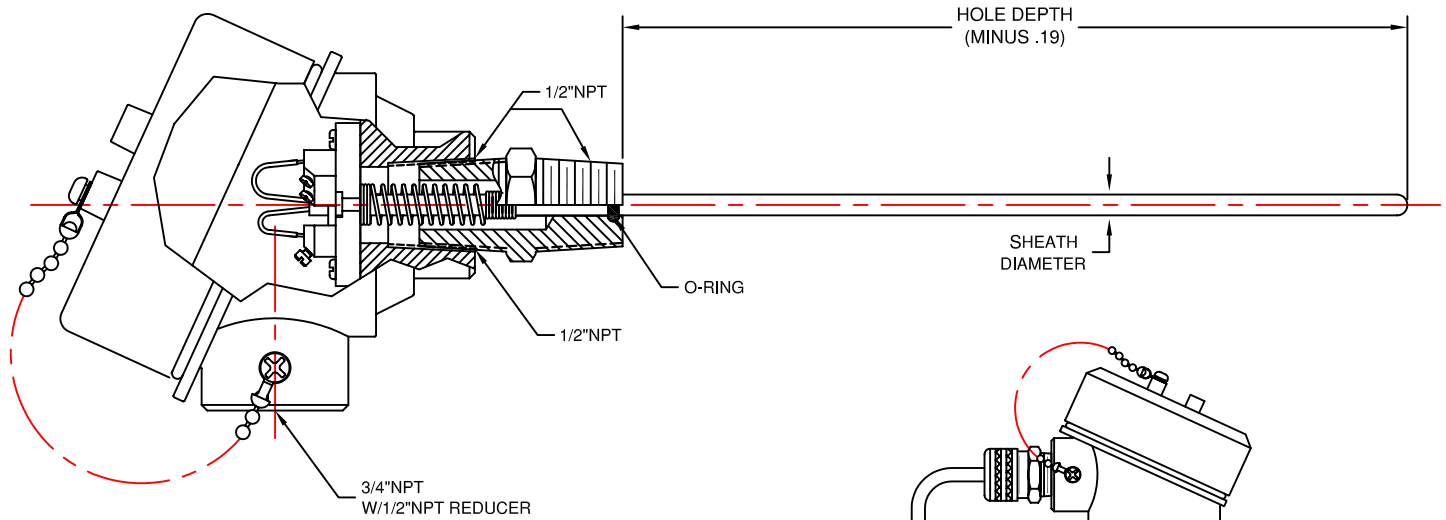
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OIL SEAL RTD'S with FLOATING COLLAR
 (SINGLE CONSTRUCTION ONLY)

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Doc. No.: TE-CO010109-INRD-160

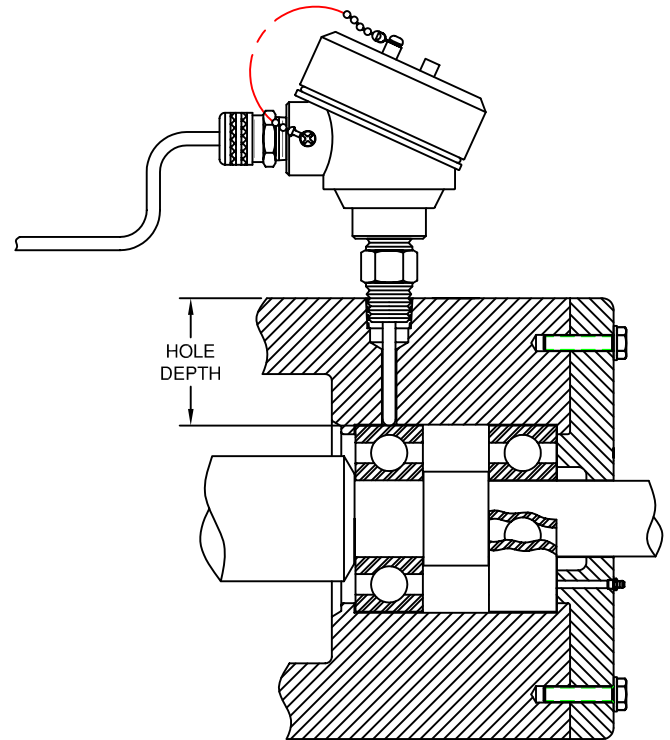
INDUSTRIAL RTD'S



Specifications:
 RTD Element
 Type: Platinum
 Resistance @ 0° C: 100 OHMS
 Temperature Coefficient to Resistance: .00385
 Sheath Material: 316 Stainless Steel
 Fitting Assembly Material: Stainless Steel.
 O-Ring: Viton.
 Service Temperature: 400° F(205° C), Intermitting
 to 450 °F(260° C).

Notes:

- (1) Rated NEC class 1, Groups B, C and D.
- (2) ATEX approved EEx d IIC, T6.
- (3) For an item that does not fall within the catalog description an (SP) can be added to the ordering code as part of a custom construction.



CODE	SHEATH DIAMETER	CODE	HOLE DEPTH	CODE	STRUCTURE	CODE	SYSTEM
316	3/16" (.187)		IN INCHES	S	SINGLE CONSTRUCTION	2W	2 WIRE (4 WIRE TOTAL WITH DUPLEX)
14	1/4" (.250)			D	DUPLEX CONSTRUCTION		3 WIRE (LEAVE BLANK)
						4W	4 WIRE (8 WIRE TOTAL WITH DUPLEX)

ORDERING CODE:

RTD55605	SHEATH DIAMETER	HOLE DEPTH	SINGLE/ DUPLEX	HEAD TYPE	SYSTEM	ACCURACY
	14	6.5	S	AN		CLA

CONNECTION HEAD			
CODE	MATERIAL	TYPE	NEMA
AN	ALUMINUM	WATER PROOF	4
SN	STAINLESS STEEL	WATER PROOF, CORROSION RESISTANT	4, 4X
AE	ALUMINUM	EXPLOSION PROOF (NOTE 1)	4
SE	STAINLESS STEEL	EXPLOSION PROOF, CORROSION RESISTANT (NOTE 1)	4, 4X
XD	ALUMINUM	EXPLOSION PROOF, FM, CSA APPROVED (NOTES 1 & 2)	4, 4X
AX	ALUMINUM, LARGE DEVICE, EPOXY COATED	EXPLOSION PROOF, ATEX APPROVED (NOTE 2)	4

CODE	ACCURACY
	ASTM E1137 CLASS B (LEAVE BLANK)
CLA	ASTM E1137 CLASS A



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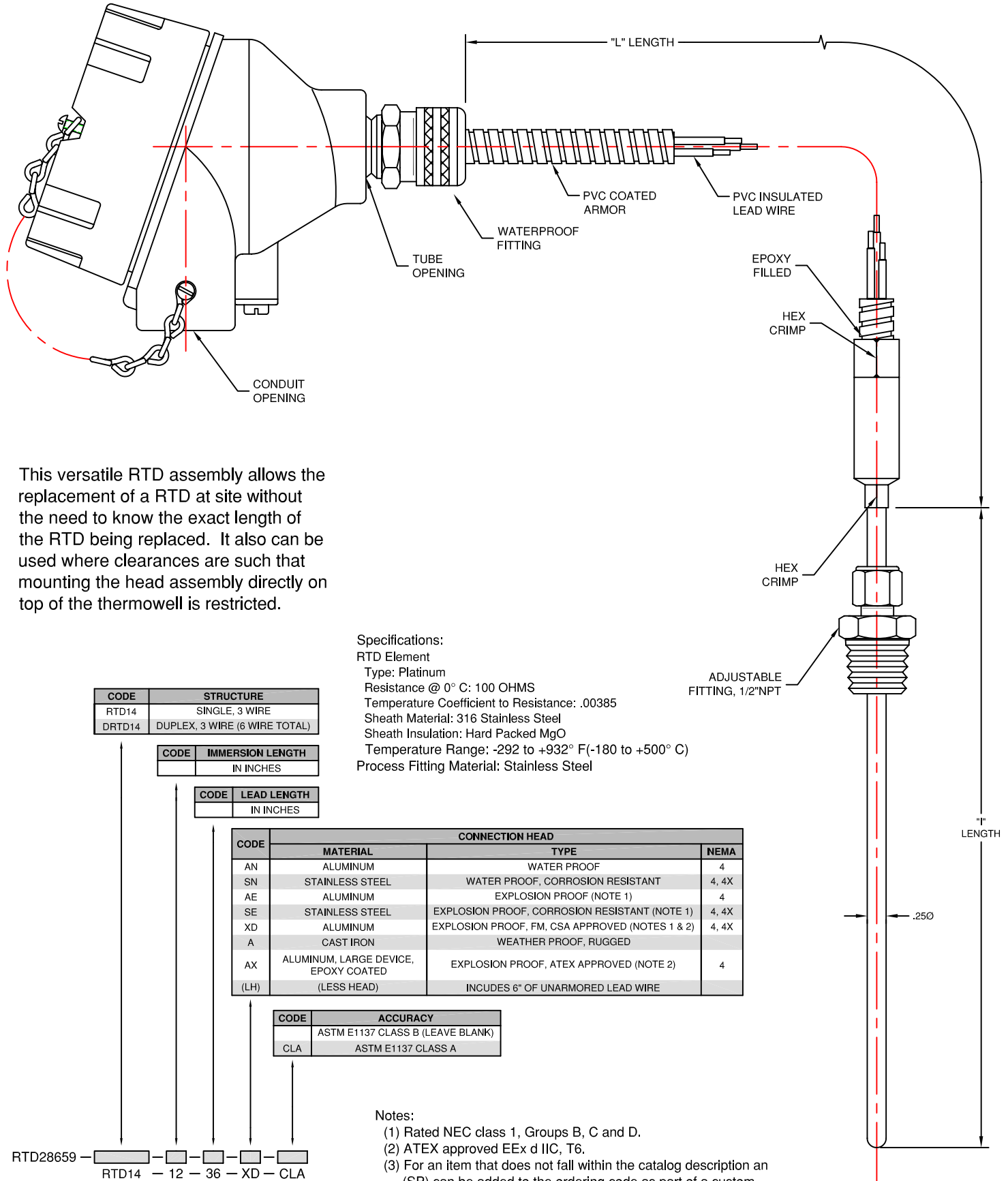
SECTION INRD

OIL SEAL RTD'S

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Doc. No.: TE-CO010109-INRD-170

INDUSTRIAL RTD'S



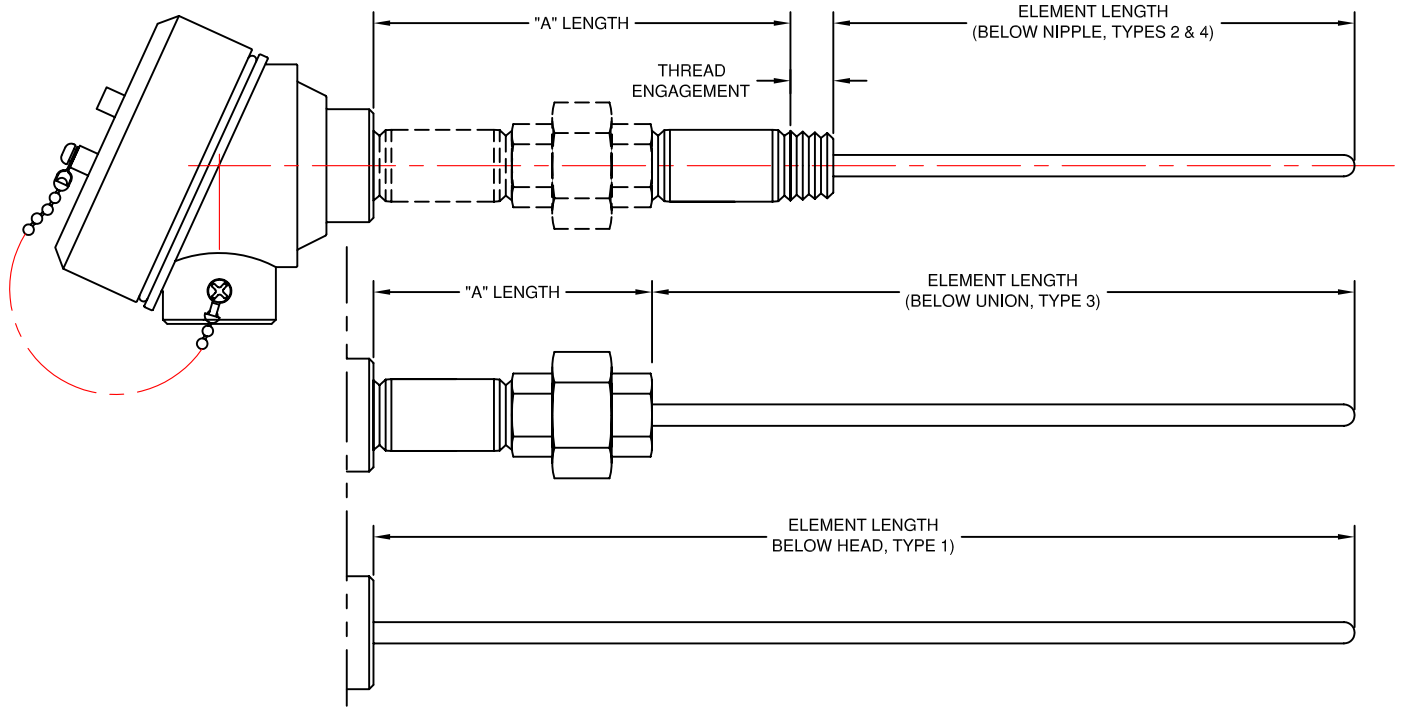
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SECTION INRD REMOTE HEAD MOUNTED ASSEMBLIES

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Doc. No.: TE-CO010109-INRD-180

INDUSTRIAL RTD'S



CODE	CONNECTION HEAD		
	MATERIAL	TYPE	NEMA
AN	ALUMINUM	WATER PROOF	4
SN	STAINLESS STEEL	WATER PROOF, CORROSION RESISTANT	4, 4X
AE	ALUMINUM	EXPLOSION PROOF (NOTE 2)	4
SE	STAINLESS STEEL	EXPLOSION PROOF, CORROSION RESISTANT (NOTE 2)	4, 4X
XD	ALUMINUM	EXPLOSION PROOF, FM, CSA APPROVED (NOTES 2 & 3)	4, 4X
A	CAST IRON	WEATHER PROOF, RUGGED	
L	POLYPROPYLENE	WEATHER PROOF, LIGHT WEIGHT	
AX	ALUMINUM, LARGE DEVICE, EPOXY COATED	EXPLOSION PROOF, ATEX APPROVED (NOTE 3)	4

DETERMINING ELEMENT LENGTH

In most cases to determine element length for existing wells, simply measure the overall length of the well and subtract 1/2" for thread engagement. This allows for spring compression on spring loaded elements and minor adjustment to non-spring loaded elements.

CODE	HEAD EXTENSION
1	(NO EXTENSION, 0 "A" LENGTH)
2	NIPPLE
3	NIPPLE/UNION
4	NIPPLE/UNION/NIPPLE

CODE	CONDUIT OPENING
	1/2 or 3/4NPT

CODE	ELEMENT LENGTH
	(IN INCHES)

CODE	TUBE OPENING
	1/2 or 3/4NPT

CODE	ELEMENT EXTENSION
B.H.	BELOW HEAD (TYPE 1)
B.N.	BELOW NIPPLE (TYPE 2 & 4)
B.U.	BELOW UNION (TYPE 3)

CODE	"A" LENGTH
	IN INCHES

4 AE 3/4 - 1/2 - 4 - D 14 PT5 LT - 4W - CLA - 12 B.N.

CODE	STRUCTURE
	SINGLE (LEAVE BLANK)
D	DUPLEX

CODE	SHEATH DIAMETER
316	3/16" (.187)
14	1/4" (.25")

CODE	ACCURACY
	ASTM E1137 CLASS B (LEAVE BLANK)
CLA	ASTM E1137 CLASS A

CODE	ELEMENT TYPE			
	STANDARD	MATERIAL	TCR	RESISTANCE @ 0° C.
	DIN 43760	PLATINUM	.00385	100 OHMS (LEAVE BLANK)
PT5	DIN 43760	PLATINUM	.00385	500 OHMS
PT1	DIN 43760	PLATINUM	.00385	1000 OHMS (LT RANGE ONLY)
JIS	JIS-C-1604-81	PLATINUM	.003916	100 OHMS
SA	RC21-4-1966	PLATINUM	.003923	98,129 OHMS
CU		COPPER	.00427	10 OHMS (LT RANGE ONLY)
NI		NICKEL	.00672	120 OHMS

CODE	SYSTEM
2W	2 WIRE (4 WIRE TOTAL WITH DUPLEX)
	3 WIRE (LEAVE BLANK)
4W	4 WIRE (8 TOTAL WITH DUPLEX)

CODE	TEMPERATURE RANGE
LT	-58 to +500° F (-50 to +260° C.)
MT	-58 to +900° F (-50 to +482° C.)
	-292 to +932° F (-180 to +500° C) (LEAVE BLANK)
HT	-292 to +1202° F (-180 to +650° C) (NOTE 4)

Notes:

- (1) Standard Nipples - Steel, Schedule 40.
Standard Unions - Black Malleable Iron, 150#.
OPTIONAL STAINLESS STEEL
Nipples - 304 or 316 Stainless Steel, Schedule 40 or 80.
Unions - 304 or 316 Stainless Steel.
Example Ordering Code:
4AE 3/4 1/2 6(R or R80).
- (2) Rated NEC class 1, Groups B, C and D.
- (3) ATEX approved EEx d IIC, T6.
- (4) Standard in single construction, 3 wire, class B, Inconel sheath material.
- (5) For an item that does not fall within the catalog description an (SP) can be added to the ordering code as part of a custom construction.



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SECTION INRD

ASSEMBLIES LESS THERMOWELLS

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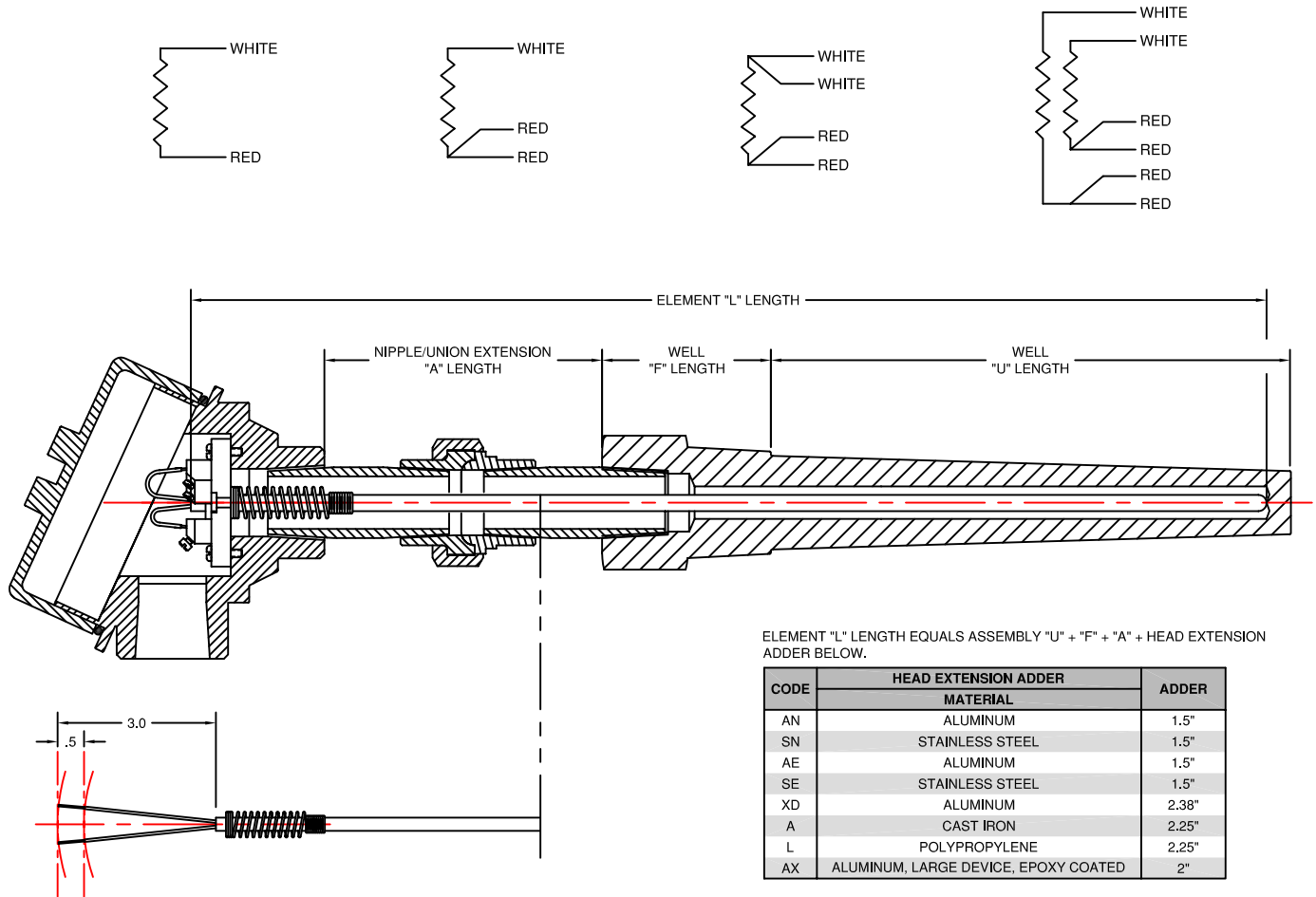
Doc. No.: TE-CO010109-INRD-190

INDUSTRIAL RTD'S

Type RTD and DRTD Resistant Temperature Elements are available standard and HT range with a wire wound bulb manufactured with CERAMO®, a metal sheath with a hard packed MgO insulation. The sheath material is usually a standard 316 stainless steel or a nickel base alloy. The MT and LT are tube construction with Teflon or fiberglass insulated wires attached to a thin film bulb sealed at the tip. Elements are spring loaded by means of a self gripping stainless steel spring which backs up under the terminal block for a constant tip contact inside the well. The elements terminate to 3" of stranded and insulated nickel clad copper lead wire epoxy sealed into the end of the sheath or a transition piece.

RTD's in the LT temperature range can be purchased in a stocked 28.5" element length and cut to size at the site with a simple tube cutter. Refer to Section IMRD Document number TE-SB101506-IMRD-130 for additional information and ordering code.

Elements may be ordered by measuring the "L" length of the existing element or using the guide below.



ELEMENT "L" LENGTH EQUALS ASSEMBLY "U" + "F" + "A" + HEAD EXTENSION ADDER BELOW.

CODE	HEAD EXTENSION ADDER		ADDER
	MATERIAL		
AN	ALUMINUM		1.5"
SN	STAINLESS STEEL		1.5"
AE	ALUMINUM		1.5"
SE	STAINLESS STEEL		1.5"
XD	ALUMINUM		2.38"
A	CAST IRON		2.25"
L	POLYPROPYLENE		2.25"
AX	ALUMINUM, LARGE DEVICE, EPOXY COATED		2"

RTD 14 PT5 LT 4W CLA 12

CODE	STRUCTURE
D	SINGLE (LEAVE BLANK)
	DUPLEX

CODE	SHEATH DIAMETER
316	3/16" (.187)
14	1/4" (.25")

CODE	ELEMENT LENGTH
	(IN INCHES)

CODE	ACCURACY
	ASTM E1137 CLASS B (LEAVE BLANK)
CLA	ASTM E1137 CLASS A

CODE	SYSTEM
2W	2 WIRE (4 WIRE TOTAL WITH DUPLEX)
	3 WIRE (LEAVE BLANK)
4W	4 WIRE (8 TOTAL WITH DUPLEX)

CODE	ELEMENT TYPE			
	STANDARD	MATERIAL	TCR	RESISTANCE @ 0° C.
	DIN 43760	PLATINUM	.00385	100 OHMS (LEAVE BLANK)
PT5	DIN 43760	PLATINUM	.00385	500 OHMS
PT1	DIN 43760	PLATINUM	.00385	1000 OHMS (LT RANGE ONLY)
JIS	JIS-C-1604-81	PLATINUM	.003916	100 OHMS
SA	RC21-4-1966	PLATINUM	.003923	98.129 OHMS
CU		COPPER	.00427	10 OHMS (LT RANGE ONLY)
NI		NICKEL	.00672	120 OHMS

CODE	TEMPERATURE RANGE
LT	-58 to +500° F (-50 to +260° C.)
MT	-58 to +900° F (-50 to +482° C.)
	-292 to +932° F (-180 to +500° C) (LEAVE BLANK)
HT	-292 to +1202° F (-180 to +650° C) (NOTE 1)

Notes:
(1) Standard in single construction, 3 wire, class B, Inconel sheath material.



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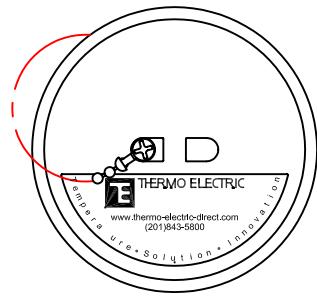
SECTION INRD

REPLACEMENT RTD ELEMENTS

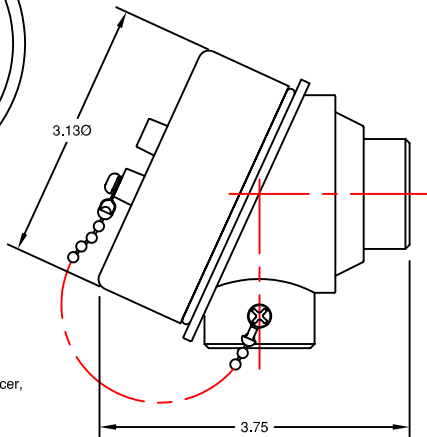
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Doc. No.: TE-CO010109-INRD-200

INDUSTRIAL RTD'S



TYPE AN

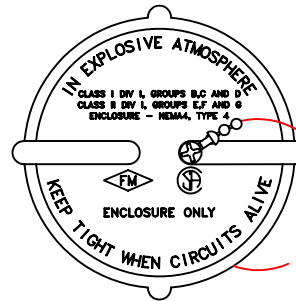


WATERPROOF ALUMINUM HEAD

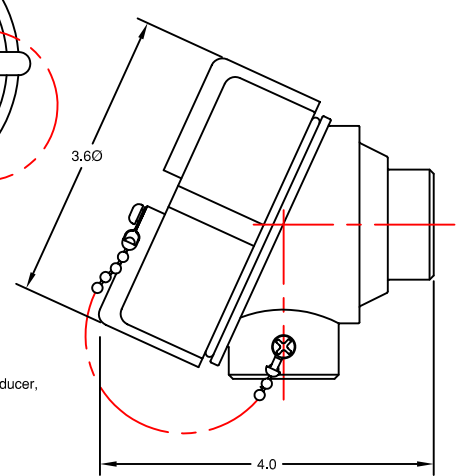
STANDARD FEATURES

Gray Polyester Coated Cast Aluminum Body & Cover
Stainless Steel Ball Chain
Neoprene O-ring
Internal Ground Screw
Available Tube Openings: 1/2", 3/4"NPT
Available Conduit Openings: 1/2" with reducer, 3/4"NPT

COMPLIANCE
NEMA-4



TYPE AE



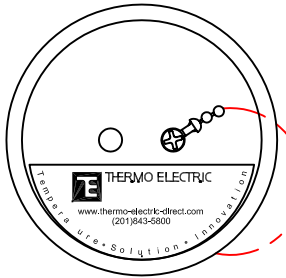
EXPLOSION PROOF ALUMINUM HEAD

STANDARD FEATURES

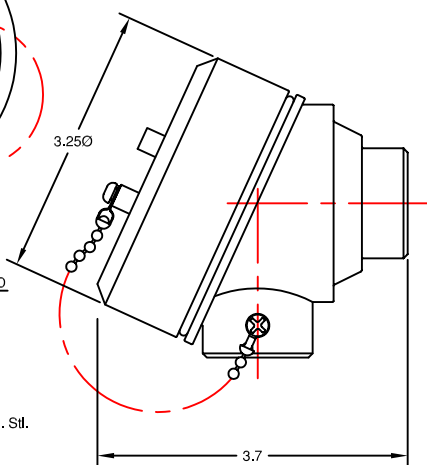
Gray Polyester Coated Cast Aluminum Body & Cover
Stainless Steel Ball Chain
Neoprene O-ring
Internal Ground Screw
Available Tube Openings: 1/2", 3/4"NPT
Available Conduit Openings: 1/2" with reducer, 3/4"NPT

COMPLIANCE

CSA & FM Approved for
Class 1, Division 1, Groups B, C, & D
Class 2, Division 2, Groups E, F & G
NEMA-4



TYPE SN

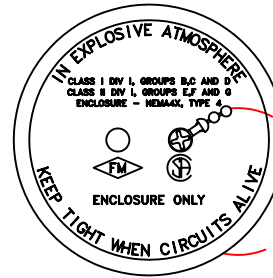


CORROSION RESISTANT STN. STL. HEAD

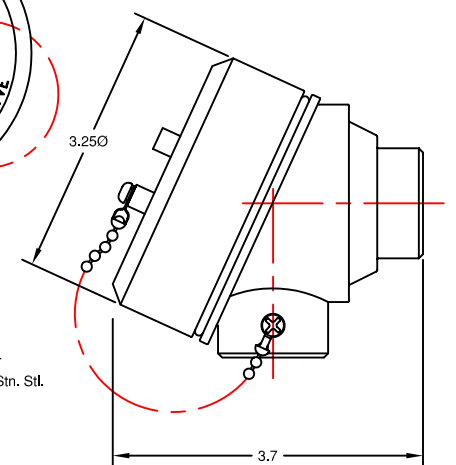
STANDARD FEATURES

316 Stainless Steel Body & Cover
Stainless Steel Ball Chain
Neoprene O-ring
Internal Ground Screw
Available Tube Openings: 1/2", 3/4"NPT
Available Conduit Openings: 1/2" with Stn. Stl. reducer, 3/4"NPT

COMPLIANCE
NEMA-4, -4X



TYPE SE



CORROSION RESISTANT EXPLOSION PROOF STN. STL. HEAD

STANDARD FEATURES

316 Stainless Steel Body & Cover
Stainless Steel Ball Chain
Neoprene O-ring
Internal Ground Screw
Available Tube Openings: 1/2", 3/4"NPT
Available Conduit Openings: 1/2" with Stn. Stl. reducer, 3/4"NPT

COMPLIANCE

CSA & FM Approved for
Class 1, Division 1, Groups B, C, & D
Class 2, Division 2, Groups E, F & G
NEMA-4, -4X

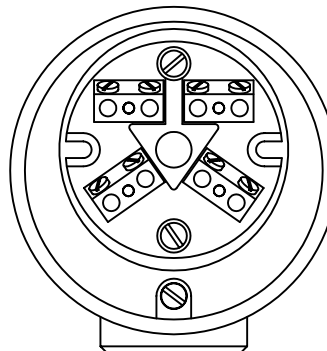
CODE	HEAD TYPE	
	SERVICE	MATERIAL
AN	WATERPROOF	ALUMINUM
AE	EXPLOSION PROOF	ALUMINUM
SN	CORROSION RESISTANT	STAINLESS STEEL
SE	CORROSION RESISTANT, X-PROOF	STAINLESS STEEL

CODE	CONDUIT OPENING
	1/2 or 3/4"NPT

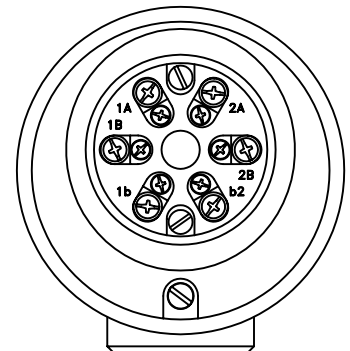
CODE	TUBE OPENING
	1/2 or 3/4"NPT

CODE	TERMINAL BLOCK
4P	4 POINT BLOCK
6P	6 POINT BLOCK

HD: ☐ ☐ - ☐ ☐
AN 3/4 - 1/2, 4P



STANDARD 4 POINT BLOCK
FOR 2, 3 & 4 WIRE RTD'S



STANDARD 6 POINT BLOCK
FOR 6 WIRE RTD'S



TEMPERATURE MEASUREMENT DESIGNER'S GUIDE
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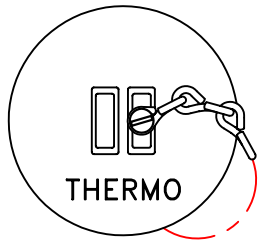
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INDUSTRIAL RTD'S

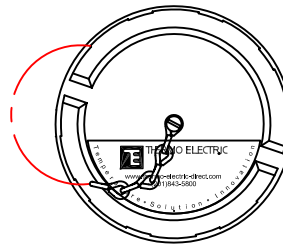
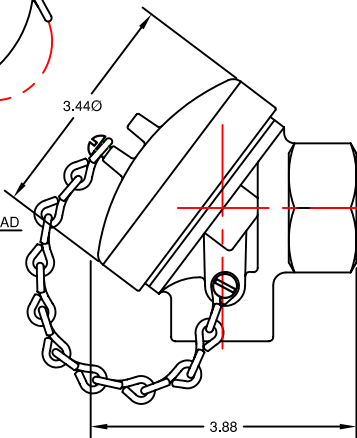


TYPE A

WEATHERPROOF HEAVY DUTY CAST IRON HEAD

STANDARD FEATURES

- Cast Iron Body & Cover with Heat Resistant Aluminum Paint
- Galvanized Jack Chain
- Fiber Gasket
- Available Tube Openings: 1/2", 3/4", 1"NPT
- Available Conduit Openings: 1/2" with reducer, 3/4"NPT
- Optional Neoprene gasket: Add "OR" to Code (A-OR)



EXPLOSION PROOF ALUMINUM HEAD

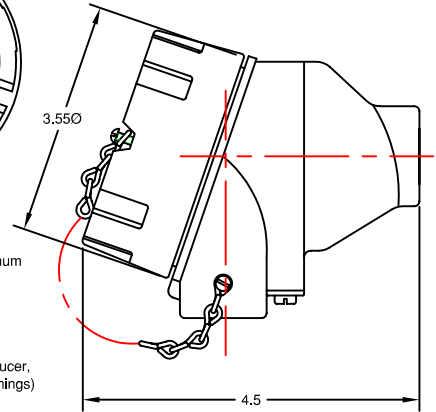
STANDARD FEATURES

- Chemically Resistant Painted Cast Aluminum Body & Cover
- Stainless Steel Link Chain
- Neoprene O-ring
- Internal, External Ground Screw
- Available Tube Openings: 1/2", 3/4"NPT
- Available Conduit Openings: 1/2" with reducer, 3/4"NPT, M20 X 1.5, (Dual Conduit Openings)

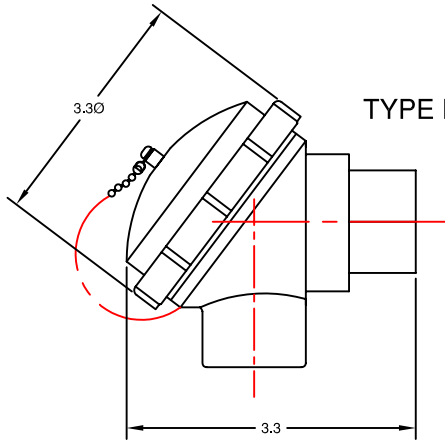
COMPLIANCE

- ATEX Approved EEx d IIC T6
- CSA & FM Approved for Class 1, Division 1, Groups A, B, C, & D
- Class 2, Division 2, Groups E, F & G
- NEMA-4, -4X, IP66

TYPE XD



TYPE L

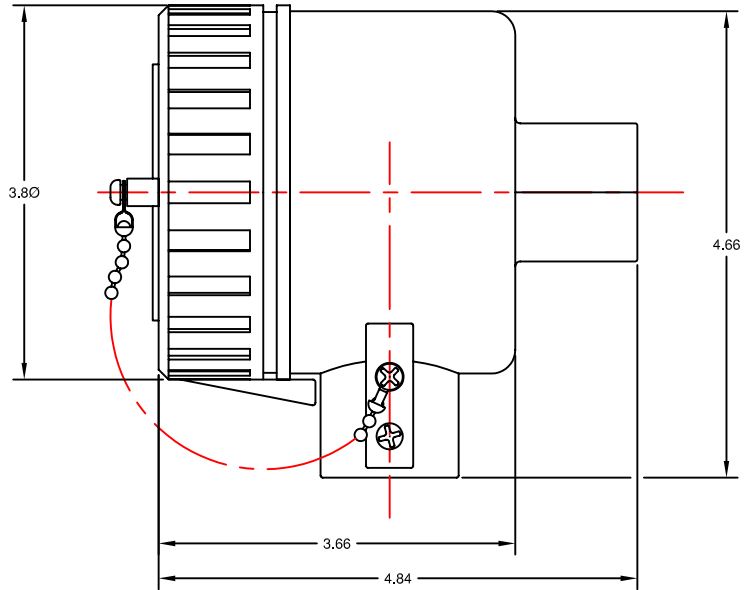


POLYPROPYLENE HEAD

STANDARD FEATURES

- Black Polypropylene Body & Cover
- Stainless Steel Ball Chain
- Rubber Gasket
- Available Tube Openings: 1/2", 3/4", 1"NPT
- Available Conduit Openings: 1/2" with PVC reducer, 3/4"NPT

TYPE AX



CODE	HEAD TYPE	
	SERVICE	MATERIAL
A	WEATHERPROOF, HEAVY DUTY	CAST IRON
XD	EXPLOSION PROOF	ALUMINUM
L	LIGHT WEIGHT PLASTIC	POLYPROPYLENE
AX	LARGE DEVICE	ALUMINUM

CODE	CONDUIT OPENING
	1/2, 3/4", 1"NPT, M20 x1.5

CODE	TUBE OPENING
	1/2 or 3/4"NPT

CODE	TERMINAL BLOCK
4P	4 POINT BLOCK
6P	6 POINT BLOCK

HD: ☐ ☐ ☐ ☐
AE 3/4" — 1/2", 4P

LARGE DEVICE

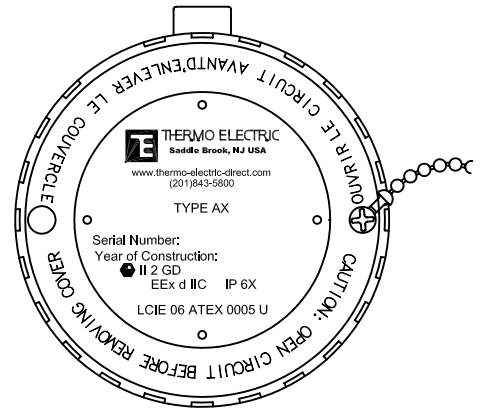
ATEX APPROVED ALUMINUM HEAD

STANDARD FEATURES

- Epoxy Coated Blue Cast Aluminum Body & Cover
- Stainless Steel Ball Chain
- Neoprene O-ring
- Internal, External Ground Screw
- Available Tube Openings: 1/2", 3/4"NPT
- Available Conduit Openings: 1/2", 3/4"NPT, M20 x 1.5

COMPLIANCE

- ATEX Approved EEx d IIC T6
- CSA & FM approval Pending



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