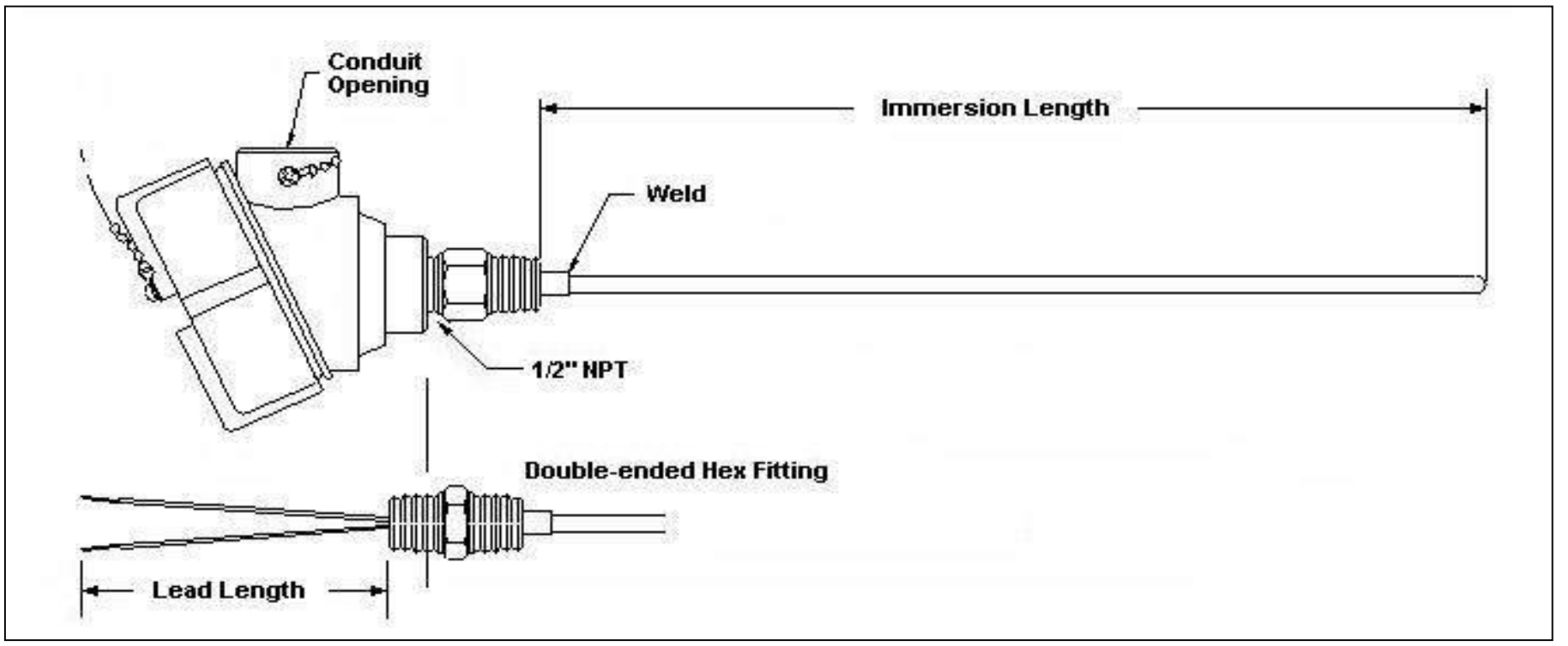
Honeywell

STT 3000 Temperature Probe Assemblies
Series STT820 - Rigid Probe Assembly

Model Selection Guide



Instructions

- Choose availability column based on mounting configuration.
- A dot (●) denotes unrestricted availability. A letter denotes restricted availability.
- Blank denotes unavailable - choose alternate. View Restrictions table.
- Select options and approvals from Tables.

Key Number	I	II	III	IV	V	VI, Options
STT820 -	_ _ _ -	_ _ , _ _ -	_ _ _ _ -	_ _ _ _ _ _ _ -	_ _ -	_ _ _ , _ _ _

Key Number	Selection		Availability
Rigid Probe Assembly	STT820		●

Transmitter options:

STT170 SERIES

STT250 SERIES

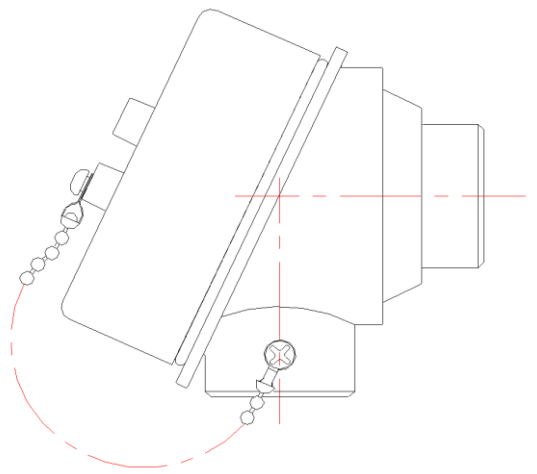
STT350 SERIES

Table I Transmitter Selection	Selection	000	0TB	STT17 1	STT17 3	STT17 H	STT17 F	STT25 M	STT25 D	STT25 H	STT25 S	STT25 T	STT35 0	STT35 F
													Availability	
No transmitter, no housing	000	●												
No transmitter, head mount housing with terminal block only	0TB		●											
Wired to STT171 (Analog)	171			●										
Wired to STT173 (Analog)	173				●									
Wired to STT17H (HART)	17H					●								
Wired to STT17F (Fieldbus)	17F						●							
Wired to STT25M (Analog)	25M							●						
Wired to STT25D (DE)	25D								●					
Wired to STT25H (HART)	25H									●				
Wired to STT25S (HART6)	25S										●			
Wired to STT25T (HART)	25T											●		
Wired to STT350 (Analog/DE)	350												d	
Wired to STT35F (Fieldbus)	35F													d

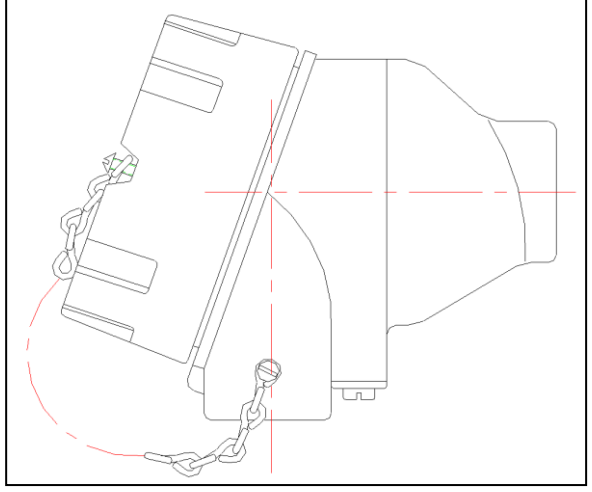
NOTE: Transmitters have additional certifications as Intrinsically Safe, Non-incendive and Non-sparking.
See transmitter specifications for details.

TABLE II - STT Options		Selection	Availability													
					STT17				STT25					STT35		
			000	0TB	1	3	H	F	M	D	H	S	T	0	F	
No options		00	●	●	●	●	●	●	●	●	●	●	●	●	●	
Configur-ation	Transmitter Configuration (See 13:STT-OE pages for choices)	TC			●	●	●	●	●	●	●	●	●	●	●	
Customer Tagging	316 SS Wired-on Customer I.D. Tag (4 lines, 28 chars.)	TG	e	e	e	e	e	e	e	e	e	e	e	e	e	b
	316 SS Wired-on Customer I.D. Tag (blank)	TB	e	e	e	e	e	e	e	e	e	e	e	e	e	
Owners Manual (Transmitter)	STT35F English Language Version	EF													●	b
	STT350 English Language Version	EN												●		
	STT350 French Language Version	FR												●		
	STT350 Spanish Language Version	SP												●		
	STT250 English Language Version	EM							●	●	●	●	●			
	STT250 French Language Version	FM							●	●	●	●	●			
	STT250 Spanish Language Version	SM							●	●	●	●	●			
	STT250 Chinese Language Version	CM							●	●	●	●	●			
	STT171 Version; English, French, German Language	M1			●											
	STT173 Version; English, French, German Language	M3				●										
	STT17H Version; English, French, German Language	MH					●									
	STT17F Version; English, French, German Language	MF						●								
Mounting Arrangement	Carbon Steel angle Mounting Bracket for 2" Pipe	MB			d	d	d	d	d	d	d	d	d	d	d	b
	Stainless Steel angle Mounting Bracket for 2" Pipe	SB			d	d	d	d	d	d	d	d	d	d	d	
	DIN Rail Mounting via Clip (to Top Hat or "G" Rail)	DB			h	h	h	h	h	h	h	h	h	h	h	
316 SS Conduit Adaptors	1/2 NPT to M20 - CSA CL I, Div 1, GP ABCD, Type 4; ATEX, IECEx, Ex d IIC, IP66 - 1 Adaptor	A1			d	d	d	d	d	d	d	d	d	●	●	b
	1/2 NPT to M20 - CSA CL I, Div 1, GP ABCD, Type 4; ATEX, IECEx, Ex d IIC, IP66 - 2 Adaptors	A2			d	d	d	d	d	d	d	d	d	●	●	
	1/2 NPT to 3/4 NPT - 1 Adaptor	A3			d	d	d	d	d	d	d	d	d	●	●	
Lightning Protection	Externally Mountable to Field Mount Housing	EL			d	d	d	d	d	d	d	d	d	d	d	b
	Internal Surge/ Lightning Protection	SL			d	d	d	d	d	d	d	d	d	d	d	
Warranty	Additional Transmitter Warranty - 1 year	W1			●	●	●	●	●	●	●	●	●	●	●	b
	Additional Transmitter Warranty - 2 years	W2							●	●	●	●	●	●	●	
	Additional Transmitter Warranty - 3 years	W3							●	●	●	●	●	●	●	
	Lifetime Warranty - 15 years	WL												●	●	
Optional Certificate	Factory Transmitter Configuration/ Calibration Certificate	CD			●	●	●	●	●	●	●	●	●	●	●	b
	SIL2 TUV Certificate	S2										●				
	Certificate of Conformance/ Origin	CC			●	●	●	●	●	●	●	●	●	●	●	b
	Certificate of Origin (F0195)	CF			●	●	●	●	●	●	●	●	●	●	●	

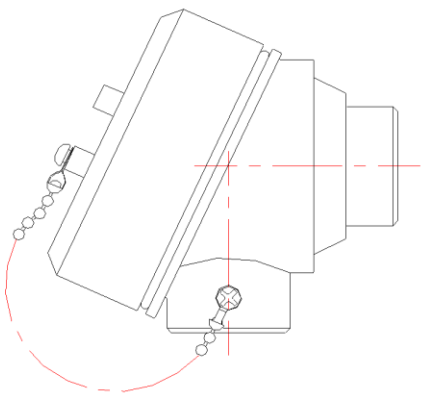
GENERAL PURPOSED ALUMINUM HEAD
TYPES: ANE, ANF, ANM



EXPLOSION PROOF ALUMINUM HEAD
TYPES: WEE, WEF, WEM

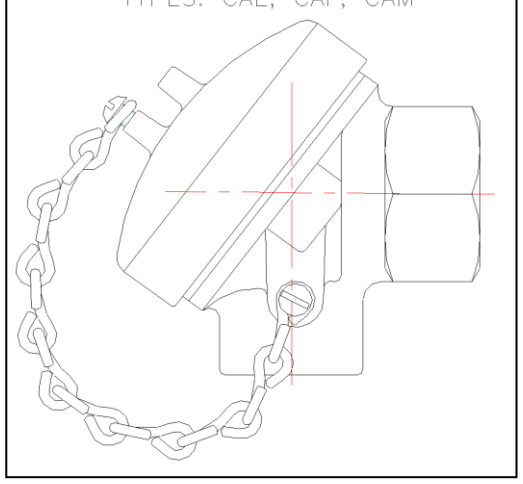


GENERAL PURPOSED STAINLESS STEEL HEAD
TYPES: SNE, SNF, SNM
EXPLOSION PROOF STAINLESS STEEL HEAD
TYPES: SEE, SEF, SEM



HOUSING
TYPES: EPE, STE

CAST IRON HEAD
TYPES: CAE, CAF, CAM



POLYPROPYLENE HEAD
TYPES: PPE, PPF, PPM

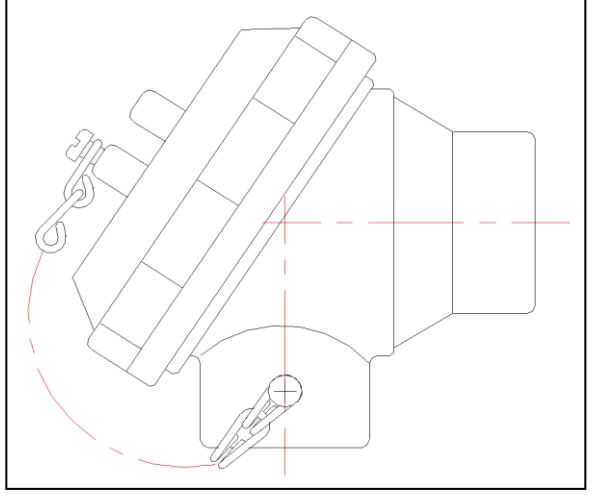


TABLE III - Housing and Meters

		Selection	000	0TB	STT17 1	STT17 3	STT17 H	STT17 F	STT25 M	STT25 D	STT25 H	STT25 S	STT25 T	STT35 0	STT35 F
No housing		000_	●		n	n	n	n	n	n	n	n	n		
Head-mount Housings	**Conduit Entry**														
General purpose aluminum	1/2" NPT	ANE_		n	n	n	n	n	n	n	n	n	n		
General purpose aluminum	3/4" NPT	ANF _		n	n	n	n	n	n	n	n	n	n		
General purpose aluminum	M20	ANM_		n	n	n	n	n	n	n	n	n	n		
Explosion proof aluminum	1/2" NPT	WEE_		●	●	●	●	●	●	●	●	●	●		
Explosion proof aluminum	3/4" NPT	WEF _		●	●	●	●	●	●	●	●	●	●		
Explosion proof aluminum	M20	WEM_		f	f	f	f	f	f	f	f	f	f		
General purpose stainless steel	1/2" NPT	SNE_		n	n	n	n	n	n	n	n	n	n		
General purpose stainless steel	3/4" NPT	SNF _		n	n	n	n	n	n	n	n	n	n		
General purpose stainless steel	M20	SNM_		n	n	n	n	n	n	n	n	n	n		
Explosion proof stainless steel	1/2" NPT	SEE_		●	●	●	●	●	●	●	●	●	●		
Explosion proof stainless steel	3/4" NPT	SEF _		●	●	●	●	●	●	●	●	●	●		
Explosion proof stainless steel	M20	SEM_		f	f	f	f	f	f	f	f	f	f		
Cast Iron	1/2" NPT	CAE_		n	n	n	n	n	n	n	n	n	n		
Cast Iron	3/4" NPT	CAF _		n	n	n	n	n	n	n	n	n	n		
Cast Iron	M20	CAM_		n	n	n	n	n	n	n	n	n	n		
Polypropylene	1/2" NPT	PPE_		n	n	n	n	n	n	n	n	n	n		
Polypropylene	3/4" NPT	PPF _		n	n	n	n	n	n	n	n	n	n		
Polypropylene	M20	PPM_		n	n	n	n	n	n	n	n	n	n		
Field-mount Honeywell Housings															
Aluminum explosion proof with Beige Epoxy Coating	1/2" NPT	EPE_			c	c	c	c	●	●	●	●	●	●	●
Explosion-Proof 316 Stainless Steel	1/2" NPT	STE_			c	c	c	c	●	●	●	●	●	●	●
Integral Meter															
No Integral Meter Supplied		_ _ _ 0	●	●	●	●	●	●	●	●	●	●	●	●	●
Analog Meter for Field Mount Housing		_ _ _ M							d	d	d	d	d	d	
E.U. Meter for Field Mount Housing		_ _ _ E			d	d	d		d		d	d	d		
Smart Meter for Field Mount Housing		_ _ _ S							d	d				d	
Fieldbus Meter for Field Mount Housing		_ _ _ F													d

Availability

TABLE IV - Sensor Type					Selection	Availability												
								STT17				STT25					STT35	
						000	0TB	1	3	H	F	M	D	H	S	T	0	F
Sensor Type	**No sensor**				00 _ _ _ _ _	n	n	n	n	n	n	n	n	n	n	n	n	n
	Compatible with STT:	**17X**	**25X**	**35X**														
	Thermocouples																	
	1 x Type E (IEC)	3, H, F, P	H, M, D, T	0, F	T1 _ _ _ _ _	•	•		•	•	•	•	•	•	•		•	•
	2 x Type E (IEC)	H, F, P	T	0, F	T2 _ _ _ _ _	•	•			•	•					•	•	•
	1 x Type J (IEC)	3, H, F, P	H, M, D, T	0, F	T3 _ _ _ _ _	•	•		•	•	•	•	•	•	•		•	•
	2 x Type J (IEC)	H, F, P	T	0, F	T4 _ _ _ _ _	•	•			•	•					•	•	•
	1 x Type K (IEC)	3, H, F, P	H, M, D, T	0, F	T5 _ _ _ _ _	•	•		•	•	•	•	•	•	•		•	•
	2 x Type K (IEC)	H, F, P	T	0, F	T6 _ _ _ _ _	•	•			•	•					•	•	•
	1 x Type N (IEC)	3, H, F, P	H, M, D	0, F	T7 _ _ _ _ _	•	•		•	•	•	•	•	•	•		•	•
	1 x Type T (IEC)	3, H, F, P	H, M, D, T	0, F	T8 _ _ _ _ _	•	•		•	•	•	•	•	•	•		•	•
	2 x Type T (IEC)	H, F, P	T	0, F	T9 _ _ _ _ _	•	•			•	•					•	•	•
	RTD Applications (-58 to +500°F)																	
	1 x Pt100 (IEC), 2-wire	1, 3, H, F	H, M, D, T	0, F	R1 _ _ _ _ _	•	r	r	r	r	r	r	r	r	r		r	r
	1 x Pt100 (IEC), 3-wire	1, 3, H, F	H, M, D, T	0, F	R2 _ _ _ _ _	•	r	r	r	r	r	r	r	r	r		r	r
	1 x Pt100 (IEC), 4-wire	1, 3, H, F	H, M, D, T	0, F	R3 _ _ _ _ _	•	r		r	r	r	r	r	r	r		r	r
	2 x Pt100 (IEC), 3-wire	H, F	T	0, F	R4 _ _ _ _ _	•	r			r	r					r	r	r
	1 x Pt200 (IEC), 3-wire	-	H, M, D	0, F	R5 _ _ _ _ _	•	r					r	r	r	r		r	r
	1 x Pt500 (IEC), 3-wire	-	-	0, F	R6 _ _ _ _ _	•	r										r	r
	1 x Pt1000 (IEC), 3-wire	H, F	M	-	R7 _ _ _ _ _	•	r			r	r						r	r
	RTD Applications (-292 to +932°F)																	
	1 x Pt100 (IEC), 2-wire	1, 3, H, F	H, M, D, T	0, F	H1 _ _ _ _ _	•	•	•	•	•	•	•	•	•	•		•	•
	1 x Pt100 (IEC), 3-wire	1, 3, H, F	H, M, D, T	0, F	H2 _ _ _ _ _	•	•	•	•	•	•	•	•	•	•		•	•
	1 x Pt100 (IEC), 4-wire	1, 3, H, F	H, M, D, T	0, F	H3 _ _ _ _ _	•	•		•	•	•	•	•	•	•		•	•
	2 x Pt100 (IEC), 3-wire	H, F	T	0, F	H4 _ _ _ _ _	•	•			•	•					•	•	•
	1 x Pt200 (IEC), 3-wire	-	H, M, D	0, F	H5 _ _ _ _ _	•	•					•	•	•	•		•	•
	1 x Pt500 (IEC), 3-wire	-	-	0, F	H6 _ _ _ _ _	•	•										•	•
	1 x Pt1000 (IEC), 3-wire	H, F	M	-	H7 _ _ _ _ _	•	•			•	•						•	•
Sensor Grounding	**No sensor**				_ _ 0 _ _ _ _	•	•	•	•	•	•	•	•	•	•	•	•	•
	Grounded (standard for T/Cs and Not applicable for RTDs)				_ _ G _ _ _ _	q	q	q	q	q	q	q	q	q	q	q	q	q
	Ungrounded (standard for RTDs but also applicable for TCs)				_ _ U _ _ _ _	•	•	•	•	•	•	•	•	•	•	•	•	•
Immersion Length "I"	Whole Number	No sensor			_ _ _ 00 _ _	•	•	•	•	•	•	•	•	•	•	•	•	•
		1in			_ _ _ 01 _ _	•	•	•	•	•	•	•	•	•	•	•	•	•
		2 in.			_ _ _ 02 _ _	•	•	•	•	•	•	•	•	•	•	•	•	•
		3 in.			_ _ _ 03 _ _	•	•	•	•	•	•	•	•	•	•	•	•	•
		4 in.			_ _ _ 04 _ _	•	•	•	•	•	•	•	•	•	•	•	•	•
		5 in.			_ _ _ 05 _ _	•	•	•	•	•	•	•	•	•	•	•	•	•
		6 in.			_ _ _ 06 _ _	•	•	•	•	•	•	•	•	•	•	•	•	•
		7 in.			_ _ _ 07 _ _	•	•	•	•	•	•	•	•	•	•	•	•	•
		8 in.			_ _ _ 08 _ _	•	•	•	•	•	•	•	•	•	•	•	•	•
		9 in.			_ _ _ 09 _ _	•	•	•	•	•	•	•	•	•	•	•	•	•
		10 in.			_ _ _ 10 _ _	•	•	•	•	•	•	•	•	•	•	•	•	•
		11 in.			_ _ _ 11 _ _	•	•	•	•	•	•	•	•	•	•	•	•	•
		12 in.			_ _ _ 12 _ _	•	•	•	•	•	•	•	•	•	•	•	•	•
		13 in.			_ _ _ 13 _ _	•	•	•	•	•	•	•	•	•	•	•	•	•
		14 in.			_ _ _ 14 _ _	•	•	•	•	•	•	•	•	•	•	•	•	•
		15 in.			_ _ _ 15 _ _	•	•	•	•	•	•	•	•	•	•	•	•	•
		16 in.			_ _ _ 16 _ _	•	•	•	•	•	•	•	•	•	•	•	•	•
		17 in.			_ _ _ 17 _ _	•	•	•	•	•	•	•	•	•	•	•	•	•
		18 in.			_ _ _ 18 _ _	•	•	•	•	•	•	•	•	•	•	•	•	•
		19 in.			_ _ _ 19 _ _	•	•	•	•	•	•	•	•	•	•	•	•	•
		20 in.			_ _ _ 20 _ _	•	•	•	•	•	•	•	•	•	•	•	•	•
		21 in.			_ _ _ 21 _ _	•	•	•	•	•	•	•	•	•	•	•	•	•
		22 in.			_ _ _ 22 _ _	•	•	•	•	•	•	•	•	•	•	•	•	•
		23 in.			_ _ _ 23 _ _	•	•	•	•	•	•	•	•	•	•	•	•	•
		24 in.			_ _ _ 24 _ _	•	•	•	•	•	•	•	•	•	•	•	•	•
	Decimal	.00 in. or No sensor			_ _ _ _ _ 0 _	•	•	•	•	•	•	•	•	•	•	•	•	•
		.25 in.			_ _ _ _ _ 2 _	k	k	k	k	k	k	k	k	k	k	k	k	k
		.50 in.			_ _ _ _ _ 5 _	k	k	k	k	k	k	k	k	k	k	k	k	k
		.75 in.			_ _ _ _ _ 7 _	k	k	k	k	k	k	k	k	k	k	k	k	k
Lead Length	**Factory Defaults** : Table IV:000000D - No lead length ;Table I : 000, 35_ - 9" Lead Length ;Table I : 0TB,17_, 25_ - 6" Lead length.				_ _ _ _ _ _ D	•	•	•	•	•	•	•	•	•	•	•	•	•

Note: Hex nipple is 316 Stainless Steel, straight nipple, unions (unless XP) are 304 Stainless steel. XP unions are plated carbon steel

TABLE V - Safety Approvals

Approval Body	Approval Type	Location or Classification	Selection	Availability												
				000	0TB	1	3	H	F	M	D	H	S	T	0	F
None	No approval body certifications included		00	•	•	•	•	•	•	•	•	•	•	•	•	•
FM	Explosion-Proof	Class I, Div. 1,2, Groups A**, B,C,D	1D	•	•	•	•	•	•	•	•	•	•	•	•	•
	Dust Ignition-Proof	Class II, Div. 1,2, Groups E,F,G														
	Dust Ignition-Proof	Class IiI, Div. 1 T***														
	Outdoor Location	NEMA 4X****														
	Flameproof Environmental	ClassI, Zone 1, IIC**, T*** IP66****	15	•	•	•	•	•	•	•	•	•	•	•	•	•
CSA	Explosion-Proof	Class I, Div. 1, Groups B,C,D	2K	•	•	•	•	•	•	•	•	•	•	•	•	•
	Dust Ignition-Proof	Class II, Div. 1, Groups E,F,G														
	Dust Ignition-Proof	Class III, Div. 1, T***														
	Flameproof	Ex d, IIC, T***														
	Environmental	Enclosure Type 4X / IP66****														
ATEX	Flameproof, zone 1	Flameproof Ⓔx II 2 G Ex d IIC T6, Ambient Limits –20 to +60ºC	3D	•	•	•	•	•	•	•	•	•	•	•	•	•

** Enclosures supplied in stainless steel and enclosures with a window are de-rated to Gas Groups B, C, & D and Zone 1 Group IIB + H2

*** Temperature Class (T-Codes) is T6 with terminal block or dependant on transmitter.

**** Type 4X and IP66 ratings are dependent upon the enclosure, nipple extension and thermowell materials. IP66 dependent upon enclosure and a thermowell is required.

** Environmental ratings per CSA markings on the Head-mount enclosure.

NOTICE: The temperature probe and head-mount housings are supplied and certified by Thermo Electric Company, Inc., 60A Commerce Way, Totowa, NJ 07512. The temperature transmitter module is supplied by Honeywell International Inc.

TABLE VI - Assembly Options	**Selection**	**000**	**0TB**	**1**	**3**	**H**	**F**	**M**	**D**	**H**	**S**	**T**	**0**	**F**	
No options	000	•	•	•	•	•	•	•	•	•	•	•	•	•	
External hydrostatic pressure test (2500 PSI Standard)	PT2	•	•	•	•	•	•	•	•	•	•	•	•	•	
Transmitter with Probe calibration (system) @ 2 points, Single Sensor (specify range)	TC1			a	a	a	a	a	a	a	a	a	a	a	b
Transmitter with Probe calibration (system)@ 2 points, Duplex Sensor	TC2			a	a	a	a	a	a	a	a	a	a	a	
Clean for oxygen service (ASTM G93-96)	XGN	k	k	k	k	k	k	k	k	k	k	k	k	k	b
Clean for chlorine service (The Chlorine Institute, Inc. Pamphlet 6)	CLN	k	k	k	k	k	k	k	k	k	k	k	k	k	
Probe Calibration Data Certificate (2-point info to be provided)	AP2	m	m	m	m	m	m	m	m	m	m	m	m	m	b
Probe Calibration Data Certificate (3-point info to be provided)	AP3	m	m	m	m	m	m	m	m	m	m	m	m	m	
Probe Calibration Data Certificate (4-point info to be provided)	AP4	m	m	m	m	m	m	m	m	m	m	m	m	m	
Upgrade to Special Limits Thermocouple Calibration to ANSI MC96.1 and ASTM E230, Single	SP1	o	o	o	o	o	o	o	o	o	o	o	o	o	b
Upgrade to Special Limits Thermocouple Calibration to ANSI MC96.1 and ASTM E230, Duplex	SP2	p	p	p	p	p	p	p	p	p	p	p	p	p	
Upgrade to ASTM E1137 Grade A RTD, Single	CL1	l	l	l	l	l	l	l	l	l	l	l	l	l	b
Upgrade to ASTM E1137 Grade A RTD, Duplex	CL2	i	i	i	i	i	i	i	i	i	i	i	i	i	

RESTRICTIONS

Restriction	Available Only With		Not Available With	
Letter	**Table**	**Selection**	**Table**	**Selection**
a	**II**	**TC**	**IV**	00_ _ _ _ _
b		**make one selection from this group**		
c			**V**	**3D**
d	**III**	EPE_, STE_		
e			**III**	000_
f			**V**	2K
g	**III**	WEE_,WEF_,WEM_,SEE_,SEF_,SEM_		
h	**III**	000_		
i	**IV**	R4_ _ _ _ _ , H4_ _ _ _ _		
j	**III**	WEE_,WEF_,SEE_,SEF_,EPE_,STE_		
k			**IV**	00_ _ _ _ _
l	**IV**	R1_ _ _ _ _ to R3_ _ _ _ _,R5_ _ _ _ _ to R7_ _ _ _ _,H1_ _ _ _ _ to H3_ _ _ _ _,H5_ _ _ _ _ to H7_ _ _ _ _		
m			**IV**	00_ _ _ _ _
n			**V**	**1D, 2K, 3D, 15**
			IV	_ _ **0 0 0** _ _
o	**IV**	T1_ _ _ _ _,T3_ _ _ _ _,T5_ _ _ _ _,T7_ _ _ _ _,T8_ _ _ _ _		
p	**IV**	T2_ _ _ _ _,T4_ _ _ _ _,T6_ _ _ _ _,T9_ _ _ _ _		
q			**V**	3D
			IV	00_ _ _ _ _, R1_ _ _ _ _ to R7_ _ _ _ _,H1_ _ _ _ _ to H7_ _ _ _ _
r			**V**	**1D, 15**