MODEL W FIELD MOUNTED HART TEMPERATURE TRANSMITTER

The Reotemp Model W Explosion Proof Field Mounted HART Temperature Transmitter features a local display, HART compatibility, and a 4-20mA output. The field mounted transmitter is available as a complete RTD or thermocouple assembly customized to your process.

















HIGH DEFINITION DISPLAY

- 0, 90, 180, & 270 degree position adjustments •
- Monitoring, programming and diagnostics view
- Extensive diagnostics with flashing red or white backlight

LOCAL OPERATOR INTERFACE (LOI)

- 3 optical buttons; up, down and enter
- Dynamically adaptive to wear or accumulation of dirt •
- Immune to interference from ambient light sources
- Useable with or without gloves

CONFIGURATION

- From the LOI through guided menu
- PReset and HART modem
- HHC, DCS or AMS via HART

MOUNTING / INSTALLATION

For installation in zone 0, 1, 2 and zone 20, 21, 22 and in Class 1, Division 1 and 2 applications

4-20 mA

- Hardware assessed for use in SIL 2 applications
- Mounting on 1.5"-2" pipe bracket or on wall / bulkhead

FEATURES / BENEFITS

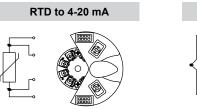
- RTD or TC Input, Analog Output
- High Definition Local Operator Interface (LOI) with 3 • **Optical Buttons**
- Selectable Red or White Backlight
- Ex d Explosion Proof / Flame Proof Aluminum Head
- HART 7 Functionality with HART 5 Compatibility

APPLICATION

- Linearized temperature measurement with TC and RTD sensors e.g. Pt100 and Ni100
- HART communication and 4...20 mA analog PV output for individual, difference or average temperature measurement of up to two RTD or TC input sensors
- Up to 63 transmitters (HART 7) can be connected in a multidrop communication setup

TECHNICAL CHARACTERISTICS

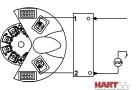
- NAMUR NE43 and NE89
- HART protocol revision can be changed by user configuration to either HART 5 or HART 7 protocol



TC to 4-20 mA

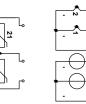


Difference or Average RTD, TC or mV



2-wire Output and HART

Ex ia: 10-30 VDC (12-30 VDC with backlight) Other: 10-35 VDC (12-35 VDC with backlight)







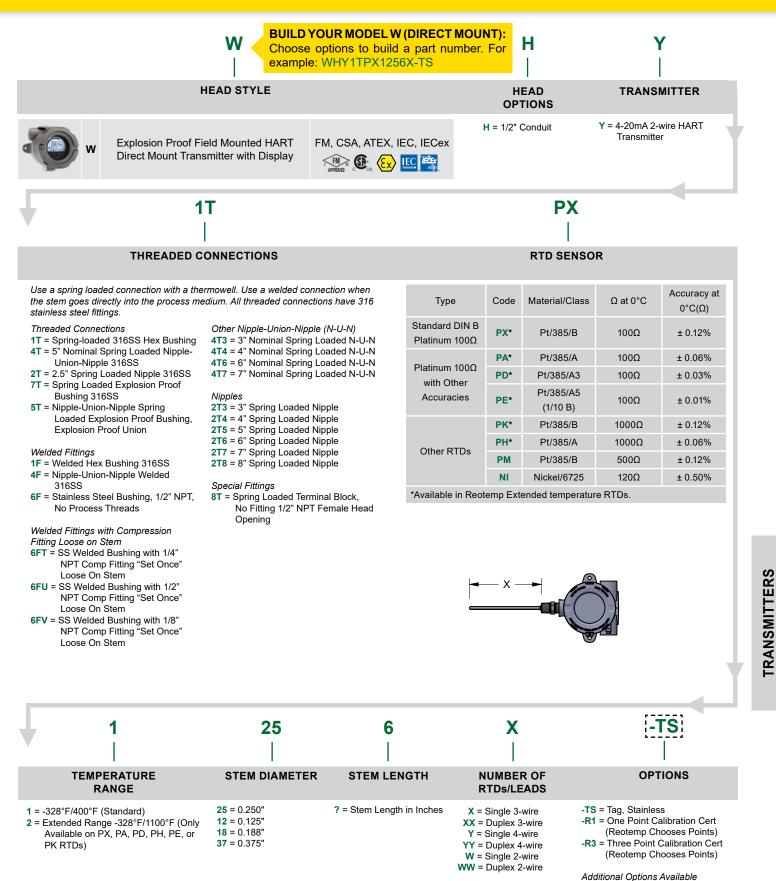
MODEL W FIELD MOUNTED HART TEMPERATURE TRANSMITTER

SPECIFICATIONS

Environm	ental Conditions					
Operating Temperature	-40°C to +85°C					
Storage Temperature	-40°C to +85°C					
Calibration Temperature	2028°C					
Relative humidity	0100% RH (condensing)					
Protection degree	IP54 / IP66 / IP68 / type 4X					
Mechanical Specifications						
Dimensions	Ø 110 mm					
Dimensions (HxWxD), aluminum	109.3 x 145 x 126 mm					
Weight approx.	1.3kg					
Wire size	0.13 x1.5 mm² / AWG 2616 stranded wire					
Screw terminal torque	0.4 Nm					
Vibration	IEC 60068-2-6					
225 Hz	±1.6 g					
25100 Hz	±4 g					
Number of digits	5					
Backlight	Selectable ON/OFF					
Backlight color	Selectable white or red					
Commor	n Specifications					
Supply voltage, DC: Ex ia, intrinsically safe	10 (12 - with backlight)30 VDC					
Supply voltage, DC: Other	10 (12 - with backlight)35 VDC					
Isolation voltage, test / working	1.5 kVAC / 50 VAC					
Response time (programmable)	160 s					
Signal / noise ratio	> 60 dB					
Programming	HART					
Start-up time, transmitter to display	Max. 5 s					
Long-term stability, better than	±0.1% of span / year					
Transmitter Accuracy	Better than 0.05% of selected range					
Signal dynamics, input	22 bit					
Signal dynamics, output.	16 bit					
EMC immunity influence	< ±0.1% of span					
Extended EMC immunity: NAMUR NE21, A criterion, burst	< ±1% of span					
Max. offset.	50% of selected max. value					

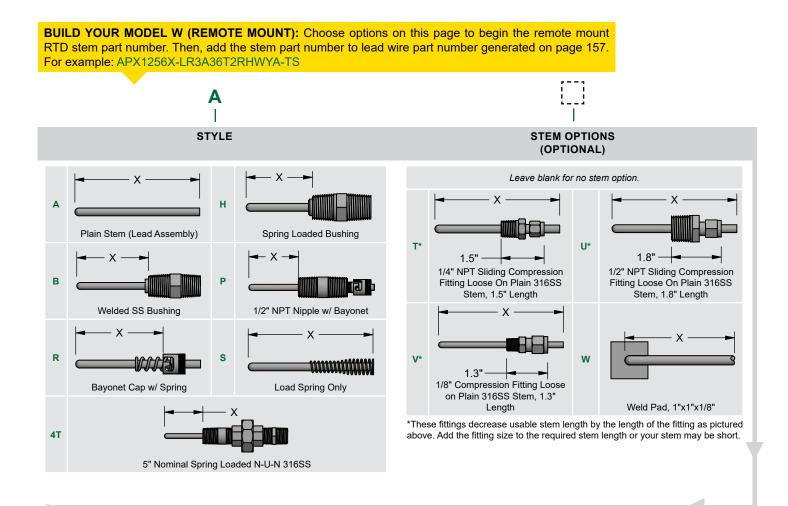
Input S	pecifications		
RTD type	Pt50/100/200/500/1000; Ni50/100/120/1000		
Cable resistance per wire	5 Ω (up to 50 Ω per wire is possible with reduced measurement accuracy)		
Sensor current	Nom. 0.2 mA		
Thermocouple type	B, E, J, K, N, R, S, T		
Cold junction compensation (CJC)	Constant, internal or external via a Pt100 or Ni100 sensor		
Output S	Specifications		
Signal range	420 mA		
Min. signal range	16 mA		
Load (@ current output)	≤ (Vsupply - 10) / 0.023 [Ω]		
Load resistance, with backlight	≤ (Vsupply - 12) / 0.023 [Ω]		
Sensor error indication	Programmable 3.523 mA		
NAMUR NE43 Upscale/ Downscale	23 mA / 3.5 mA		
Updating time	440 ms		
HART protocol revisions	HART 7 and HART 5		
Observed Aut	nority Requirements		
EMC	2014/30/EU		
EAC	TR-CU 020/2011		
Αμ	provals		
EU RO Mutual Recognition Type Approval	MRA0000009		
ATEX 2014/34/EU	DEKRA 15 ATEX 0058 X		
IECEx	IECEx DEK 15.0039 X		
FM	FM16US0009X / FM16CA0010X		
CSA	70024231		
EAC Ex TR-CU 012/2011	RU C-DK.GB08.V.01316		
INMETRO	DEKRA 15.0014 X		
NEPSI	GYJ15.1336X, GYJ15.1337X and GYJ15.1338X		
SIL	Hardware assessed for use in SIL applications		

MODEL W FIELD MOUNTED HART TEMPERATURE TRANSMITTER (DIRECT MOUNT RTD)





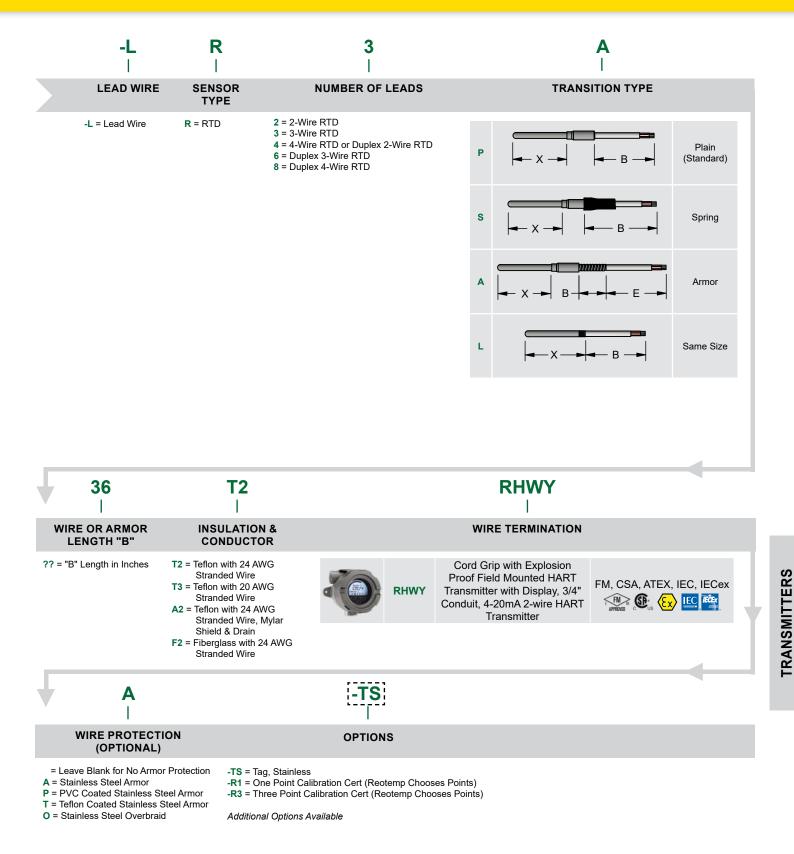
MODEL W FIELD MOUNTED HART TEMPERATURE TRANSMITTER (REMOTE MOUNT RTD)



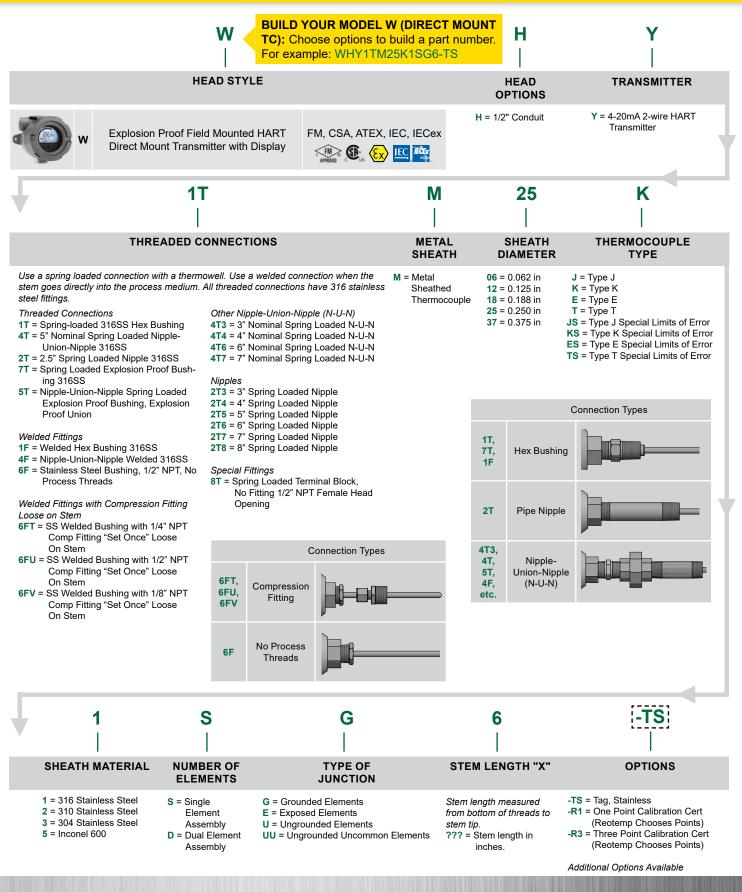
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		PX 			1	25 	6 I	X
		RTD SENSO	R		TEMPERATURE RANGE	STEM DIAMETER	STEM LENGTH "X"	NUMBER OF RTDs/LEADS
Туре	Code	Material/Class	Ω at 0°C	Accuracy at 0°C(Ω)	1 = -328°F/400°F (Standard) 2 = Extended Range	12 = 0.125" in Inches inge 18 = 0.188" °F 37 = 0.375" ble ≥E,	? = Stem Length in Inches	X = Single 3-wire XX = Duplex 3-wire Y = Single 4-wire YY = Duplex 4-wire W = Single 2-wire WW = Duplex 2-wire
Standard DIN B Platinum 100Ω	PX*	Pt/385/B	100Ω	± 0.12%	-328°F/1100°F (Only Available on PX, PA, PE, PK, PD, or PH RTDs)			
	PA*	Pt/385/A	100Ω	± 0.06%				
Platinum 100Ω with Other Accuracies	PD*	Pt/385/A3	100Ω	± 0.03%				
	PE*	Pt/385/A5 (1/10 B)	100Ω	± 0.01%			•	
Other RTDs	PK*	Pt/385/B	1000Ω	± 0.12%				_
	PH*	Pt/385/A	1000Ω	± 0.06%				
	РМ	Pt/385/B	500Ω	± 0.12%				
	NI	Nickel/6725	120Ω	± 0.50%				
*Available in Reof	temp Ext	ended temperatur	e RTDs.					

MODEL W FIELD MOUNTED HART TEMPERATURE TRANSMITTER (REMOTE MOUNT RTD)

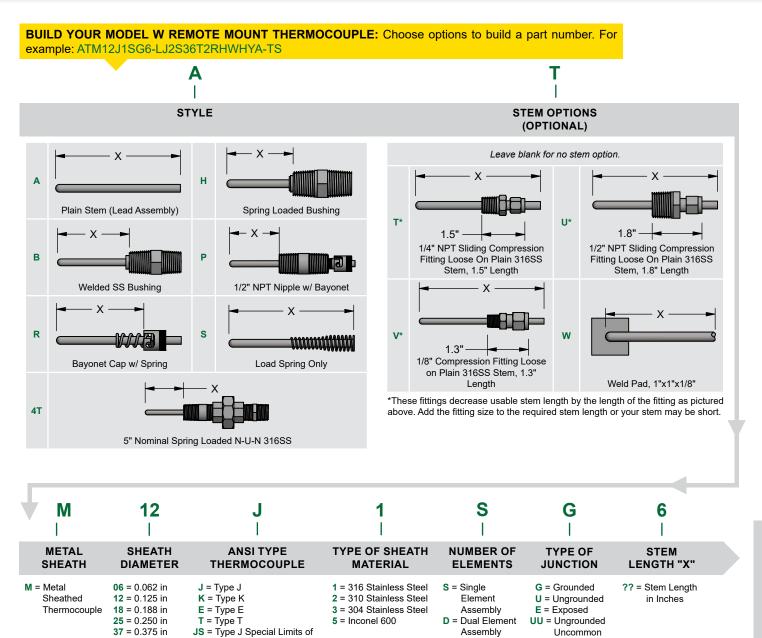


MODEL W FIELD MOUNTED HART TEMPERATURE TRANSMITTER (DIRECT MOUNT THERMOCOUPLE)



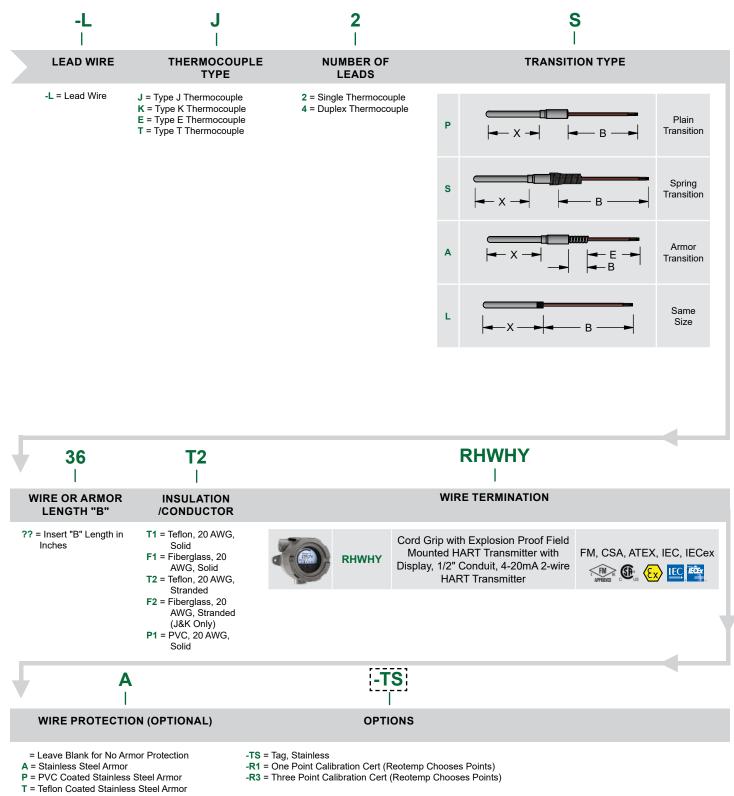
TRANSMITTERS

MODEL W FIELD MOUNTED HART TEMPERATURE TRANSMITTER (REMOTE MOUNT THERMOCOUPLE)



Error KS = Type K Special Limits of Error ES = Type E Special Limits of Error TS = Type T Special Limits of Error

MODEL W FIELD MOUNTED HART TEMPERATURE TRANSMITTER (REMOTE MOUNT THERMOCOUPLE)



O = Stainless Steel Overbraid

Additional Options Available

TRANSMITTERS

Customization

HAZARDOUS LOCATION CERTIFIED THERMOCOUPLE & RTD OPTIONS

		Thermocouple	RTD			
CERTIFICATION OPTIONS						
-R1	1 Point Calibration Certification, Reotemp Chooses	~	~			
-R3	3 Point Calibration Certification, Reotemp Chooses	✓	✓			
-C1	1 Point Calibration Certification, Customer Chooses	✓	✓			
-C3	3 Point Calibration Certification, Customer Chooses	\checkmark	~			
-CC	Certificate of Conformance	✓	✓			
-CS	NIST Calibration Sticker (No Logged Points)	✓	✓			
OTHER OPTIONS						
-VB	Hi-Vibration	N/A	✓			
-AC	Hi-Accuracy	N/A	✓			
-PS	Pointed Stem	✓	✓			
-HT	Heat Transfer Compound (2 oz)	\checkmark	✓			
TAG OPTION						
-TS	Stainless Steel Tag (1-10 Characters)	\checkmark				
-TM	Stainless Steel Tag (11-80 Characters)	\checkmark				
-TP	Paper Tag	\checkmark				

✓ Indicates that the option is available with this model.
N/A Indicates the option is not available with this model.

STD Indicates standard options with no additional cost.