Configuration Code GP01 Fixed-Sheath RTD Assemblies with General-Purpose Connection Heads

Fixed-Sheath RTD Assemblies with General-Purpose Connection Heads are provided with head mounting fittings that are welded or brazed to the sheath for direct immersion into a process. To order an assembly with an optional 4 to 20 mA transmitter, select the assembly below and the transmitter from the back of this section. The RTD assemblies are supplied with a 316 stainless steel sheath in several diameters. They are available in various tolerances and temperature ranges as noted below.





ORDER CODES

006(1/2)

2-0

Example Order Number:

1-0 100 Ω **Platinum RTD** Elements α = 0.003 85 °C⁻¹

cc	DE							
LOW RANG	GE WIRE WO	OUND (-200 to 200) ℃						
SINGLE	DUPLEX							
R1T185L	R1T285L	Grade B						
R5T185L	R5T285L	(1/5) Class B						
LOW RANGE THIN FILM (-50 to 200) °C								
RBF185L	RBF285L	Class B						
RAF185L	RAF285L	Class A						
HIGH RANG	E WIRE WO	UND (-200 to 600) °C						
R1T185H	R1T285H	Grade B						
RAT185H	RAT285H	Class A						
[1] Refer to RTD tolerance information in the General Information section for calculations to determine specific tolerance at temperature.								

3-0 No Fitting

1-1 1-2

48 3

1-0

RBF185L

CODE 00											
3-1 One-Time Adjustable Fittings											
CODE	TYPE	NPT SIZE (inches)	PRESSURE- RATED	AVAILABLE SHEATH DIAMETERS (inches)							
01A	303 SS	1/8	NO	1/8, 3/16, 1/4							
05A	316 SS	1/8	YES	1/8, 3/16, 1/4							
05B	316 SS	1/4	YES	1/8, 3/16, 1/4, 3/8							
05C	316 SS	1/2	YES	1/8, 1/4, 3/8							
15A	Brass	1/8	NO	1/8, 3/16, 1/4							
15B	Brass	1/4	NO	3/16, 1/4, 3/8							
15C	Brass	1/2	NO	1/4, 3/8							
14	Brass/ Steel	Flange	NO	1/8, 3/16, 1/4, 3/8							

3-2 Re-Adjustable Compression Fittings

1-1 Sheath Diameters							
CODE	DIAMETERS (inches) 316 SS		C				
28[1]	1/8		1				
38	3/16		1				
48	1/4		1				
68	3/8		1				
[1] Not available in duplex							

1-2 Element Connection

CODE	DESCRIPTION							
2	2-wire element							
3	3-wire element							
4[1]	4-wire element							
[1] Not available in duplex or								

with 440 Series Transmitter

2-0 "X" Dimensions

Insert three digit "X" length in inches.
Sheath lengths over 72" will be shipped in a coiled configuration unless otherwise specified.

CODE	ТҮРЕ	NPT SIZE	AVAILABLE SHEATH				
0002		(inches)	DIAMETERS (inches)				
10A	303 SS	1/8	1/8, 3/16				
10B	303 SS	1/4	1/4, 3/8				
10C	303 SS	1/2	1/4, 3/8				
12A	316 SS	1/8	1/8, 3/16, 1/4				
12B	316 SS	1/4	1/8, 3/16, 1/4, 3/8				
12C	316 SS	1/2	1/8, 1/4, 3/8				
11A	Brass	1/8	1/8, 3/16, 1/4				
11B	Brass	1/4	1/8, 3/16, 1/4, 3/8				
11C	Brass	1/2	1/4, 3/8				
19C	Spring-loaded SS well fitting	1/2	3/16, 1/4				
FEP gland standard 204 °C [400 °F] max.							

3-3 Fixed Bushings^[1] CODE MOUNTING THREAD AVAILABLE SHEATH NPT (inches) **DIAMETERS** (inches) 316 SS 8A [2] 1/8 1/8, 3/16, 1/4 [2] 8B 1/4 1/8, 3/16, 1/4, 3/8 [2] 1/8, 3/16, 1/4, 3/8 8C 1/2[2] 1/8, 3/16, 1/4, 3/8 8D 3/4 [1] Requires Table 4, Option 9HP Selection

 Requires lable 4, Option 9HP Selection
 When ordering fixed bushings, specify order code above plus insert length "U", as measured from hot tip to bottom of threaded bushing.

EXAMPLE: order code 8A06 is 1/8" NPT, 316 SS bushing located 6" from hot tip.



4-0 Head Mounting Fittings

4-2

SB

4-1

31

4-0

8HN

3

00

-

CODEDESCRIPTION6HN1/2" x 1/2" NPT steel hex nipple 1" "E" length8HN1/2" x 1/2" NPT stainless steel hex nipple 1"
"E" length9HP1/2" NPT stainless steel bushing (no process
threads)8RNDC3/4" x 1/2" NPT stainless steel hex nipple

Т-

Select Type and Range

from back of section

4-1 Head and Sheath Terminations

4-1 He	ad and Sheath Terminations
CODE	DESCRIPTION
22	3" Individual fluoropolymer leads with terminal pins
31	Aluminum screw-cover head
34	Cast iron screw-cover head
35T-642A	(4 to 20) mA HART [®] Field Transmitter with aluminum general-purpose housing
36T82- D10	(4 to 20) mA dual input HART [®] transmitter with digital display and general-purpose aluminum housing with glass lid
49	Flip-top aluminum head
63	White polypropylene screw-cover head
91	316 L stainless steel screw-cover head
4-2 O	ptions
W ^[1]	Epoxy Coating
GS	Ground screw
	Stainless tag
NB	1/2" NPT nylon conduit reducer bushing
SB	1/2" NPT conduit reducer bushing
T-440	(4 to 20) mA head-mounted RTD transmitter
T-441	(4 to 20) mA isolated head-mounted transmitter
T-442	(4 to 20) mA isolated HART [®] head-mounted transmitter
T82-00	(4 to 20) mA dual input HART [®] head- mounted transmitter
See transn	nitter ordering information in back of section.
[1] Availabl	e with option 31 only.

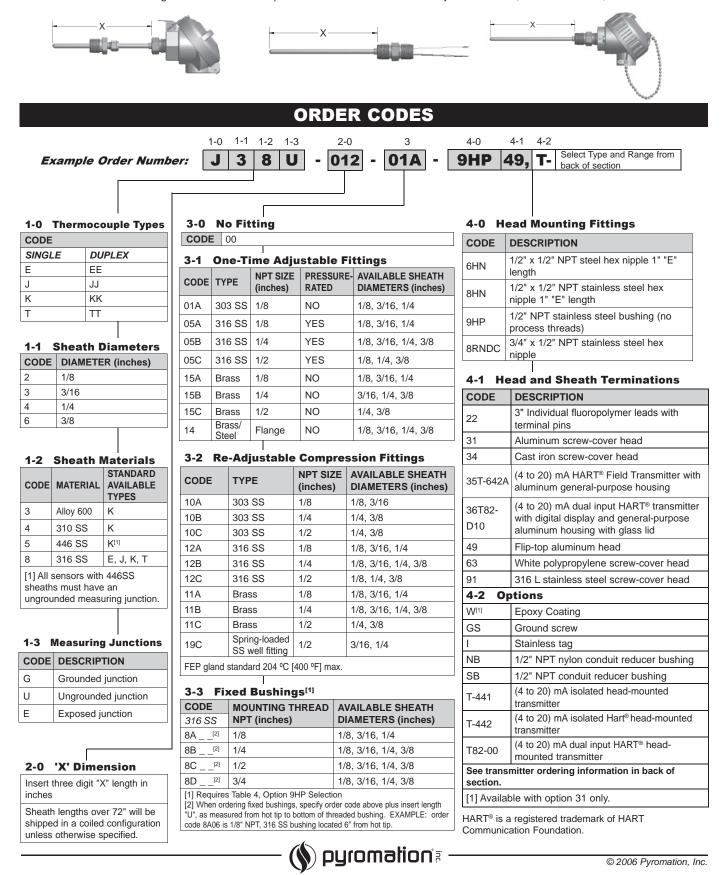
[1] Available with option 31 only.

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SENSORS WITH CONNECTION HEADS

Configuration Code GP02 Fixed-Sheath Thermocouple Assemblies with General-Purpose Connection Heads

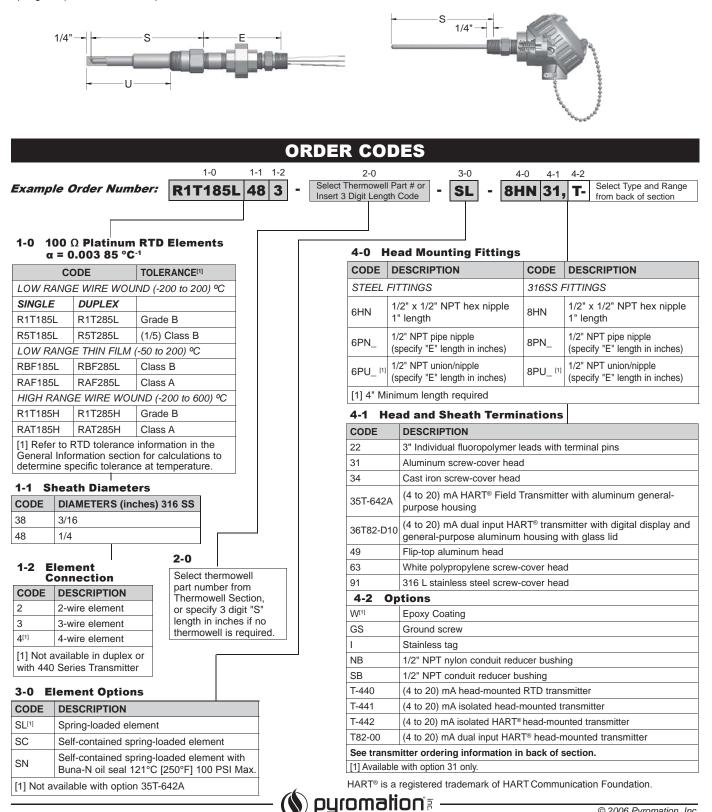
Fixed-Sheath Thermocouple Assemblies with General-Purpose Connection Heads have head mounting fittings that are welded or brazed to the sheath for direct immersion into a process. To order an assembly with an optional 4 to 20 mA transmitter, select the assembly below and the transmitter from the back of this section. The MgO-insulated thermocouple assemblies are offered in a variety of calibrations, sheath diameters, and sheath materials.



Sensors with CONNECTION HEADS

Configuration Code GP03 Spring-Loaded RTD/Thermowell Assemblies with General-Purpose Connection Heads

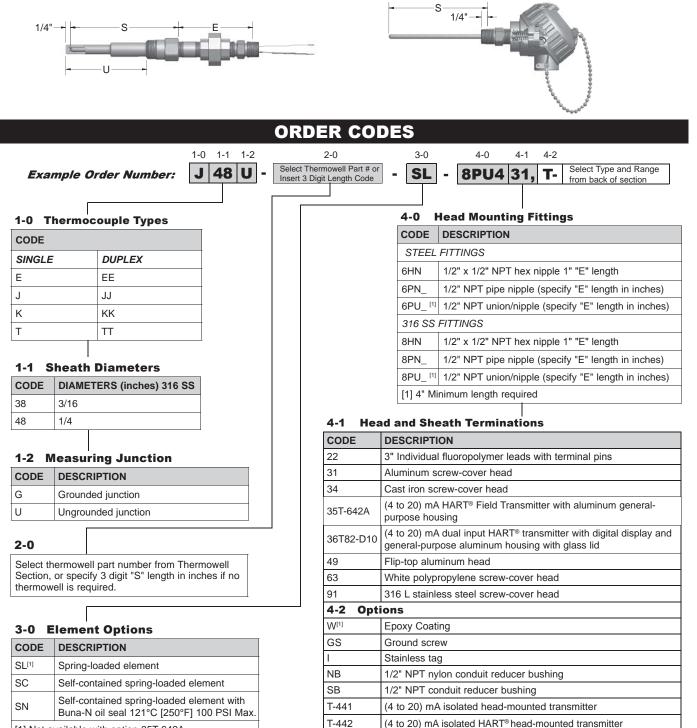
Spring-Loaded RTD/Thermowell Assemblies with General-Purpose Connection Heads are designed for use with various thermowell types. Complete assemblies can be ordered by selecting the RTD assembly below, the thermowell from the thermowell section of this catalog, and a temperature transmitter from the back of this section. Assemblies without a thermowell can be ordered by selecting the sensor assembly from this page and inserting the "S" length in table 2-0. These sensors are supplied with a 316 stainless steel sheath and are available in various tolerances and temperature ranges as noted in the tables below. Note: The "S" dimension will measure 1/4" longer than specified when the spring is in the relaxed position. The "S" dimension is calculated when the sensor is compressed or in the installed position. This design allows 1/4" spring compression to ensure positive contact with the bottom of the thermowell.



JENSORS WITH CONNECTION HEADS

Configuration Code GP04 Spring-Loaded MgO Thermocouple/Thermowell Assemblies with General-Purpose Connection Heads

Spring-Loaded MgO Thermocouple/Thermowell Assemblies with General-Purpose Connection Heads are designed for use with various thermowell types. Complete assemblies can be ordered by selecting the MgO assembly below, the thermowell from the thermowell section of this catalog, and a temperature transmitter from the back of this section. Assemblies without a thermowell can be ordered by selecting the sensor assembly from this page and inserting the "S" length in table 2-0. These sensors are supplied with a 316 stainless steel sheath and as standard limits of error. Note: The "S" dimension will measure 1/4" longer than specified when the spring is in the relaxed position. The "S" dimension is calculated when the sensor is compressed or in the installed position. This design allows 1/4" spring compression to ensure positive contact with the bottom of the thermowell.



^[1] Not available with option 35T-642A

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T82-00

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[1] Available with option 31 only.

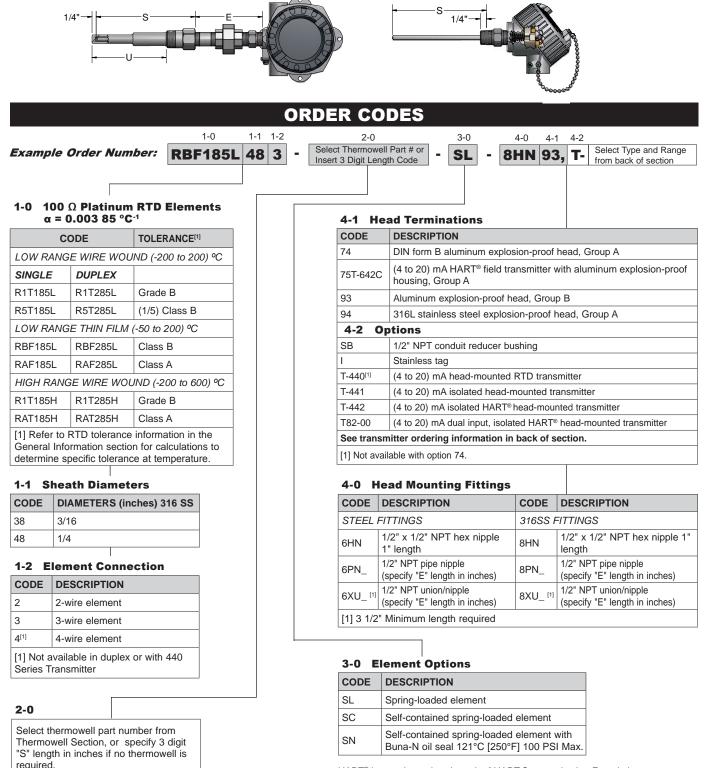
(4 to 20) mA dual input HART® head-mounted transmitter

See transmitter ordering information in back of section.

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Configuration Code GP03 Spring-Loaded RTD/Thermowell Assemblies with Explosion-Proof Connection Heads

Spring-Loaded RTD/Thermowell Assemblies with Explosion-Proof Connection Heads are designed for use with various thermowell types. Complete assemblies can be ordered by selecting the RTD assembly below, the thermowell from the thermowell section of this catalog, and a temperature transmitter from the back of this section. Assemblies without a thermowell can be ordered by selecting the sensor assembly from this page and inserting the "S" length in table 2-0. These sensors are supplied with a 316 stainless steel sheath and are available in various tolerances and temperature ranges as noted in the tables below. **Note:** The "S" dimension will measure 1/4" longer than specified when the spring is in the relaxed position. The "S" dimension is calculated when the sensor is compressed or in the installed position. This design allows 1/4" spring compression to ensure positive contact with the bottom of the thermowell.



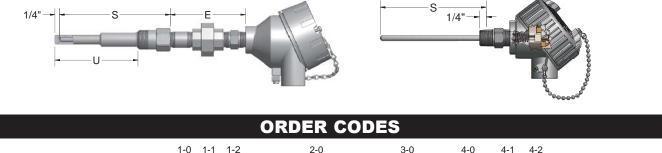
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Configuration Code GP04 Spring-Loaded MgO Thermocouple/Thermowell Assemblies with Explosion-Proof Connection Heads

Spring-Loaded MgO Thermocouple/Thermowell Assemblies with Explosion-Proof Connection Heads are designed for use with various thermowell types. Complete assemblies can be ordered by selecting the MgO assembly below, the thermowell from the thermowell section of the catalog, and a temperature transmitter from the back of this section. Assemblies without a thermowell can be ordered by selecting the sensor assembly from this page and inserting the "S" length in table 2-0. These sensors are supplied with a 316 stainless steel sheath and as standard limits or error. **Note:** The "S" dimension will measure 1/4" longer than specified when the spring is in the relaxed position. The "S" dimension is calculated when the sensor is compressed or in the installed position. This design allows 1/4" spring compression to ensure positive contact with the bottom of the thermowell.



		1-0	1-1	1-2		2	-0		3-1	0		4-0		4-1	4-Z			
Example Order Number:		J	J 48 U -		Select Thermowell Part # or Insert 3 Digit Length Code		-	- SL		- [8XL	J4	93,	Т-	Select Type and Range from back of section			
1-0 Thern	nocouple Types							4	1-0	He	ead	Mou	nti	ng Fi	tting	IS		
CODE						C	COD	E I	DES	CRIPT	ION	I I						
SINGLE	DUPLEX								STE	EL F	= TT	INGS						
E	EE							6	6HN		1/2"	x 1/2"	NP	T hex	hex nipple 1" "E" length			
J	JJ							6	SPN_	-	1/2"	NPT p	ipe	nipple	(spec	ify "E" length in inches)		
К	KK							6	SXU_	[1]	1/2"	NPT u	inior	n/nippl	e (spe	cify "E" length in inches)		
Т	TT				316 SS FITTINGS													
								8	3HN		1/2"	x 1/2"	NP	T hex	nipple	1" "E" length		
								8	BPN_	-	1/2"	NPT p	ipe	nipple	(spec	ify "E" length in inches)		
1-1 Sheat	h Diameters							8	SXU_	[1]	1/2"	NPT u	inior	n/nippl	e (spe	cify "E" length in inches)		

[1] 3 1/2" Minimum length required

4-1	Head Terminations		

CODE DESCRIPTION 74 DIN form B aluminum explosion-proof head, Group A (4 to 20) mA HART® field transmitter with aluminum explosion-75T-642C proof housing, Group A 93 Aluminum explosion-proof head, Group B 94 316L stainless steel explosion-proof head, Group A 4-2 Options SB 1/2" NPT conduit reducer bushing Stainless tag T-441 (4 to 20) mA isolated head-mounted transmitter T-442 (4 to 20) mA isolated HART® head-mounted transmitter T82-00 (4 to 20) mA Dual input, isolated HART® head-mounted transmitter See transmitter ordering information in back of section.

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3-0 Element Options

thermowell is required.

CODE	DESCRIPTION
SL	Spring-loaded element
SC	Self-contained spring-loaded element
SN	Self-contained spring-loaded element with Buna-N oil seal 121°C [250°F] 100 PSI Max

DIAMETERS (inches) 316 SS

CODE

CODE

G

U

2-0

3/16

1/4

1-2 Measuring Junction

DESCRIPTION

Grounded junction

Ungrounded junction

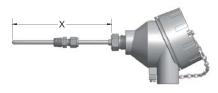
Select thermowell part number from Thermowell Section, or specify 3 digit "S" length in inches if no

38

48

Configuration Code GP01 Fixed-Sheath RTD Assemblies with Explosion-Proof Connection Heads

Fixed-Sheath RTD Assemblies with Explosion-Proof Connection Heads are provided with head mounting fittings that are welded or brazed to the sheath for direct immersion into a process. To order an assembly with an option 4 to 20 mA transmitter, select the assembly below and the transmitter from the back of this section. The RTD assemblies are supplied with a 316 stainless steel sheath in several diameters. They are available in various tolerances and temperature ranges as noted below.





ORDER CODES

	10	1-1			2-0	3		4-0				
mple Order Number:	RAF185L	48	3	-	012(1/2) -	00	-	8HN	94,	SB,	Т-	Select Type and Range from back of section
							_					

Exam

1-0		
	Elements α = 0.003 85 °C ⁻¹	

CODE		
LOW RANG	E WIRE WC	UND (-200 to 200) °C
SINGLE	DUPLEX	
R1T185L	R1T285L	Grade B
R5T185L	R5T285L	(1/5) Class B
LOW RANG	GE THIN FILI	M (-50 to 200) °C
RBF185L	RBF285L	Class B
RAF185L	RAF285L	Class A
HIGH RANG	E WIRE WO	UND (-200 to 600) °C
R1T185H	R1T285H	Grade B
RAT185H	RAT285H	Class A
[1] Refer to RTD tolerance information in the General Information section for calculations to determine specific tolerance at temperature.		

CODE	TYPE	NPT SIZE (inches)	PRESSURE- RATED	AVAILABLE SHEATH DIAMETERS (inches)
01A	303 SS	1/8	NO	1/8, 3/16, 1/4
05A	316 SS	1/8	YES	1/8, 3/16, 1/4
05B	316 SS	1/4	YES	1/8, 3/16, 1/4, 3/8
05C	316 SS	1/2	YES	1/8, 1/4, 3/8
15A	Brass	1/8	NO	1/8, 3/16, 1/4
15B	Brass	1/4	NO	3/16, 1/4, 3/8
15C	Brass	1/2	NO	1/4, 3/8
14	Brass/ Steel	Flange	NO	1/8, 3/16, 1/4, 3/8

One-Time Adjustable Fittings

3-0 No Fitting

CODE 00

3-1

1-1 Sheath Diameters

CODE	DIAMETERS (inches) 316 SS	
28[1]	1/8	
38	3/16	
48	1/4	
68	3/8	
[1] Not a	available in duplex	

1-2 Element Connection

CODL	DESCRIPTION	
2	2-wire element 3-wire element 4-wire element	
3		
4[1]		
[1] Not available in duplex or with 440 Series Transmitter		

2-0 "X" Dimensions

Insert three digit "X" length in inches.
Sheath lengths over 72" will be shipped in a coiled configuration unless otherwise specified.

3-2 Re-Adjustable Compression Fittings				
CODE	ТҮРЕ	NPT SIZE (inches)	AVAILABLE SHEATH DIAMETERS (inches)	
10A	303 SS	1/8	1/8, 3/16	
10B	303 SS	1/4	1/4, 3/8	
10C	303 SS	1/2	1/4, 3/8	
12A	316 SS	1/8	1/8, 3/16, 1/4	
12B	316 SS	1/4	1/8, 3/16, 1/4, 3/8	
12C	316 SS	1/2	1/8, 1/4, 3/8	
11A	Brass	1/8	1/8, 3/16, 1/4	
11B	Brass	1/4	1/8, 3/16, 1/4, 3/8	
11C	Brass	1/2	1/4, 3/8	
19C	Spring-loaded SS well fitting	1/2	3/16, 1/4	
FEP gland standard 204 °C [400 °F] max.				

3-3 Fixed Bushings^[1] CODE MOUNTING THREAD AVAILABLE SHEATH NPT (inches) **DIAMETERS** (inches) 316 SS 8A [1] 1/8 1/8, 3/16, 1/4 8B [1] 1/4 1/8, 3/16, 1/4, 3/8 8C [1] 1/2 1/8, 3/16, 1/4, 3/8 8D [1] 3/4 1/8, 3/16, 1/4, 3/8 [1] Requires Table 4. Option 9HP Selection [2] When ordering fixed bushings, specify order code above plus insert length

[2] When ordering fixed bushings, specify order code above plus insert length "U", as measured from hot tip to bottom of threaded bushing. EXAMPLE: order code 8A06 is 1/8" NPT, 316 SS bushing located 6" from hot tip.

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4-0 Head Mounting Fittings

CODE	DESCRIPTION	
6HN	1/2" x 1/2" NPT steel hex nipple 1" "E" length	
8HN	1/2" x 1/2" NPT stainless steel hex nipple 1" "E" length	
9HP	1/2" NPT stainless steel bushing (no process threads)	
8RNDC	3/4" x 1/2" NPT stainless steel hex nipple	

4-1 Head Terminations

4-1 neau reminations				
CODE	DESCRIPTION			
74	DIN form B aluminum explosion-proof head, Group A			
75T-642C (4 to 20) mA HART [®] field transmitter with aluminum explosion-proof housing, Group A				
93	Aluminum explosion-proof head, Group B			
94	316L stainless steel explosion-proof head, Group A			
4-2 Op	otions			
SB	1/2" NPT conduit reducer bushing			
I	Stainless tag			
T-440 ^[1]	(4 to 20) mA head-mounted RTD transmitter			
T-441	(4 to 20) mA isolated head-mounted transmitter			
T-442 (4 to 20) mA isolated HART® head-mounted transmitter				
T82-00 (4 to 20) mA dual input, isolated HART® head-mounted transmitter				
See transmitter ordering information in back of section.				
[1] Not available with option 74.				

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SENSORS WITH Connection Heads

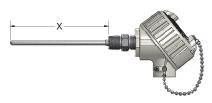
Configuration Code GP02 Fixed-Sheath Thermocouple Assemblies with Explosion-Proof Connection Heads

Fixed-Sheath Thermocouple Assemblies with Explosion-Proof Connection Heads are provided with head mounting fittings that are welded or brazed to the sheath for direct immersion into a process. To order an assembly with an optional 4 to 20 mA transmitter, select the assembly below and the transmitter from the back of this section. The MgO-insulated thermocouple assemblies are offered in a variety of calibrations, sheath diameters, and sheath materials.



1-0 1-1 1-2 1-3

J 2 8 U



4-1

74

4-2

Т-

4-0

9HP

4-1

ORDER CODES

3

01A

2-0

012

Example Order Number:

1-0	Thermocouple
	Types

CODE	
SINGLE	DUPLEX
E	EE
J	JJ
К	KK
Т	ТТ
	· ·

1-1Sheath DiametersCODEDIAMETER (inches)21/8

н		
Ι	3	3/16
Ι	4	1/4
Ι	6	3/8

1-2 Sheath Materials

CODE	MATERIAL	STANDARD AVAILABLE TYPES
3	Alloy 600	К
4	310 SS	К
5	446 SS	K ^[1]
8	316 SS	E, J, K, T
[1] All consors with 446SS		

[1] All sensors with 446SS sheaths must have an ungrounded measuring junction.

	Measuring Junctions
CODE	DESCRIPTION
G	Grounded junction
U	Ungrounded junction

2-0 'X' Dimension

Insert three digit "X" length in inches Sheath lengths over 72" will be shipped in a coiled configuration unless otherwise specified.

Exposed junction

3-0	No Fit	ting					
CODE 00							
3-1 One-Time Adjustable Fittings							
CODE	TYPE	NPT SIZE (inches)	PRESSURE- RATED	AVAILABLE SHEATH DIAMETERS (inches)			
01A	303 SS	1/8	NO	1/8, 3/16, 1/4			
05A	316 SS	1/8	YES	1/8, 3/16, 1/4			
05B	316 SS	1/4	YES	1/8, 3/16, 1/4, 3/8			
05C	316 SS	1/2	YES	1/8, 1/4, 3/8			
15A	Brass	1/8	NO	1/8, 3/16, 1/4			
15B	Brass	1/4	NO	3/16, 1/4, 3/8			
15C	Brass	1/2	NO	1/4, 3/8			
14	Brass/ Steel	Flange	NO	1/8, 3/16, 1/4, 3/8			
		1					

3-2 Re-Adjustable Compression Fittings

CODE	ТҮРЕ	NPT SIZE (inches)	AVAILABLE SHEATH DIAMETERS (inches)
10A	303 SS	1/8	1/8, 3/16
10B	303 SS	1/4	1/4, 3/8
10C	303 SS	1/2	1/4, 3/8
12A	316 SS	1/8	1/8, 3/16, 1/4
12B	316 SS	1/4	1/8, 3/16, 1/4, 3/8
12C	316 SS	1/2	1/8, 1/4, 3/8
11A	Brass	1/8	1/8, 3/16, 1/4
11B	Brass	1/4	1/8, 3/16, 1/4, 3/8
11C	Brass	1/2	1/4, 3/8
19C	Spring-loaded SS well fitting	1/2	3/16, 1/4
FEP gland	standard 204 °C	400 °F] max.	

3-3 Fixed Bushings^[1]

0011	tea Basinings	
CODE	MOUNTING THREAD	AVAILABLE SHEATH
316 SS	NPT (inches)	DIAMETERS (inches)
8A ^[1]	1/8	1/8, 3/16, 1/4
8B ^[1]	1/4	1/8, 3/16, 1/4, 3/8
8C ^[1]	1/2	1/8, 3/16, 1/4, 3/8
8D ^[1]	3/4	1/8, 3/16, 1/4, 3/8
[1] Requires	Table 4, Option 9HP Selection	on

[2] When ordering fixed bushings, specify order code above plus insert length "U", as measured from hot tip to bottom of threaded bushing. EXAMPLE: order code 8A06 is 1/8" NPT, 316 SS bushing located 6" from hot tip.



4-0 Head Mounting Fittings

Head Terminations

CODE	DESCRIPTION
6HN	1/2" x 1/2" NPT steel hex nipple 1" "E" length
8HN	1/2" x 1/2" NPT stainless steel hex nipple 1" "E" length
9HP	1/2" NPT stainless steel bushing (no process threads)
8RNDC	3/4" x 1/2" NPT stainless steel hex nipple

Select Type and Range

from back of section

CODE	DESCRIPTION					
74	DIN form B aluminum explosion-proof head, Group A					
75T-642C	(4 to 20) mA HART [®] field transmitter with aluminum explosion-proof housing, Group A					
93	Aluminum explosion-proof head, Group B					
94	316L stainless steel explosion-proof head, Group A					
4-2 Op	tions					
SB	1/2" NPT conduit reducer bushing					
I	Stainless tag					
T-441	(4 to 20) mA isolated head-mounted transmitter					
T-442	(4 to 20) mA isolated HART [®] head- mounted transmitter					
T82-00	(4 to 20) mA dual input, isolated HART [®] head-mounted transmitter					
See transm section.	nitter ordering information in back of					

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Thermocouple and RTD Spring-Loaded Replacement Elements

Thermocouple and RTD spring-Loaded Replacement elements are designed for spring-loaded thermowell assemblies. The replacement elements can be ordered by selecting the sensor type below and inserting the "X" length in table 2-0. The RTD assemblies are supplied with a 316 stainless steel sheath and are available in various tolerances and temperature ranges as noted in the tables below. The MgO-insulated thermocouple assemblies are supplied with a 316 stainless steel sheath, various calibrations, and as standard limits of error.

				WP					
				0	RDER	CODES		Configuratio	on Code
								Comguratio	
ermoco			1-0 J48	1-1 3 U	- 012	- SL	- 22(06)	ן	
ample	Order Ni	imber:	JT				- 22(00)	J	
1-0 TI	hermoco	uple Typ	es		4-0	Sheath '	 Fermination:		
CODE			E SHEATH		COD			•	
			RS (316 SS)		22[1]			er leads with terminal	pins
SINGLE		3/16" O.D.			[1] F	For longer lea	ads, insert 2 digi	length in inches. Exa	ample: 22(06)
E	EE	38	48						
J	JJ	38	48		3-0	Element	Style		
K	KK	38	48		COD	DE DESCRIF	PTION		
Т	TT	38	48		SL	Spring-loa	aded element]	
1-1 M	easuring	Junctio	n			·		-	
CODE	DESCRIP	TION			2-0	Length		_	
G	Grounded	junction			COD	Ε		-	
U	Unground	ed junction			Inse	rt 3 Digit "X"	ength in inches		
	RTD Ex	ample O	rder Num	_	RDER (1-0 R1T185	1-1 1-2	2 2-0	Configuration 3-0 1/2) - SL	on Code 4-0 - 22
	ΟΩ Plati	num RTD	r <i>der Num</i> Element	ber:	1-0	1-1 1-2	2 2-0	3-0	4-0
α =		num RTD 5 °C⁻¹		ber:	1-0 R1T185	1-1 1-2 L 48 3 Sheath	2 2-0 012(Terminations	3-0 1/2) - SL	4-0
α =	0 Ω Plati = 0.003 8 CODE	num RTD 5 °C ⁻¹ TOLE	Element	s	1-0 R1T185	1-1 1-2 L 48 3 	2 2-0 012(Termination PTION	3-0 1/2) - SL	4-0 22
α = LOW RAN	0 Ω Plati = 0.003 8 CODE	num RTD 5 °C-1 TOLE WOUND (-2	Element	s	1-0 R1T185 4-0 22 ^[1]	1-1 1-2 L 48 3 Sheath DE DESCRII 3" Individ	2 2-0 012(Terminations PTION Iual fluoropolyme	3-0 1/2) - SL s er leads with terminal	4-0 22 pins
α = LOW RAN SINGLE	D Ω Plati = 0.003 8 CODE IGE WIRE	TOLE WOUND (-2 X	Element: RANCE ^[1] 200 to 200) 9	s	1-0 R1T185 4-0 <u>COE</u> <u>22</u> ^[1]	1-1 1-2 L 48 3 Sheath DE DESCRII 3" Individ	2 2-0 012(Terminations PTION Iual fluoropolyme	3-0 1/2) - SL	4-0 22 pins
α = LOW RAN SINGLE R1T185L	D Ω Plati = 0.003 8 CODE IGE WIRE DUPLE	TOLE WOUND (-2 X GL Grad	Element: RANCE ^[1] 200 to 200) 9	s	1-0 R1T185 4-0 COE 22 ^[1] [1] F	1-1 1-2 L 48 3 Sheath ¹ DE DESCRII 3" Individ For longer lea	2 2-0 012(Terminations PTION Iual fluoropolyme ads insert 2 digit	3-0 1/2) - SL s er leads with terminal	4-0 22 pins
α = LOW RAN SINGLE R1T185L R5T185L LOW RAN	D Ω Plati 0.003 8 CODE IGE WIRE DUPLE R1T285 R5T285 IGE THIN F	Tope Tope WOUND (-2 X SL Grad SL (1/5) FILM (-50 to	Element: RANCE ^[1] 200 to 200) ° e B Class B	s	1-0 R1T185 4-0 COE 22 ^[1] [1] F 3-0	1-1 1-2 L 48 3 Sheath DESCRIN 3" Individ For longer lea	2 2-0 012(Terminations PTION Iual fluoropolyme ads insert 2 digit t Style	3-0 1/2) - SL s er leads with terminal	4-0 22 pins
α = LOW RAN SINGLE R1T185L R5T185L LOW RAN	D Ω Plati 0.003 8 CODE IGE WIRE DUPLE R1T285 R5T285	Tope Tope WOUND (-2 X SL Grad SL (1/5) FILM (-50 to	Element: RANCE ^[1] 200 to 200) % e B Class B 200) %	s	1-0 R1T185 4-0 COL 22 ^[1] [1] F 3-0 COL	1-1 1-2 L 48 3 Sheath DESCRII 3" Individ For longer lear Element DE DESCRI	2 2-0 012(Terminations PTION Iual fluoropolymo ads insert 2 digit t Style Style	3-0 1/2) - SL s er leads with terminal	4-0 22 pins
α = LOW RAN SINGLE R1T185L R5T185L LOW RAN	D Ω Plati 0.003 8 CODE IGE WIRE DUPLE R1T285 R5T285 IGE THIN F	TOLE WOUND (-2 X SL Grad SL FILM (-50 to SL Class	Element: RANCE ⁽¹⁾ 200 to 200) ° e B Class B 200) °C s B	s	1-0 R1T185 4-0 COE 22 ^[1] [1] F 3-0	1-1 1-2 L 48 3 Sheath DESCRII 3" Individ For longer lear Element DE DESCRI	2 2-0 012(Terminations PTION Iual fluoropolyme ads insert 2 digit t Style	3-0 1/2) - SL s er leads with terminal	4-0 22 pins
α = LOW RAN SINGLE R1T185L R5T185L LOW RAN RBF185L RAF185L HIGH RAN	D Ω Plati 0.003 8 CODE IGE WIRE DUPLE R1T285 R5T285 IGE THIN I RBF285 RAF285 NGE WIRE	TOLE WOUND (-2 X SL Grad SL (1/5) FILM (-50 to SL Class SL Class WUND (-2	Element: RANCE ^[1] 200 to 200) ° e B Class B 200) °C s B s A 200 to 600) °	s	1-0 R1T185 4-0 22 ^[1] [1] F 3-0 SL	1-1 1-2 L 48 3 Sheath DE DESCRII 3" Indivice For longer lease Element DE DESCR Spring-	2 2-0 012(Terminations PTION Iual fluoropolymo ads insert 2 digit t Style Style	3-0 1/2) - SL s er leads with terminal	4-0 22 pins
α = LOW RAM SINGLE R1T185L R5T185L LOW RAM RBF185L RAF185L HIGH RAM R1T185H	D Ω Platii 0.003 8 CODE IGE WIRE R1T285 R5T285 IGE THIN F RBF285 RAF285 NGE WIRE R1T285	TOLE WOUND (-2 X GL Grad GL GL <t< td=""><td>Element: RANCE^[1] 200 to 200) ° e B Class B 200) °C s B s A 200 to 600) °</td><td>s</td><td>1-0 R1T185 4-0 COL 22^[1] [1] F 3-0 SL 2-0</td><td>1-1 1-2 L 48 3 Sheath DE DESCRI 3" Individ For longer lease Element DE DESCR Spring-1 Length</td><td>2 2-0 012(Terminations PTION Iual fluoropolymo ads insert 2 digit t Style Style</td><td>3-0 1/2) - SL s er leads with terminal</td><td>4-0 22 pins</td></t<>	Element: RANCE ^[1] 200 to 200) ° e B Class B 200) °C s B s A 200 to 600) °	s	1-0 R1T185 4-0 COL 22 ^[1] [1] F 3-0 SL 2-0	1-1 1-2 L 48 3 Sheath DE DESCRI 3" Individ For longer lease Element DE DESCR Spring-1 Length	2 2-0 012(Terminations PTION Iual fluoropolymo ads insert 2 digit t Style Style	3-0 1/2) - SL s er leads with terminal	4-0 22 pins
α = LOW RAM SINGLE R1T185L R5T185L LOW RAM RBF185L RAF185L HIGH RAI R1T185H RAT185H	D Ω Plati 0.003 8 CODE IGE WIRE R1T285 R5T285 IGE THIN F RBF285 RAF285 NGE WIRE R1T285 RAF285 RAT285	TOLE WOUND (-2 X GL Grad GL GL <t< td=""><td>Element: RANCE^[1] 200 to 200) ° e B Class B 200) °C s B s A 2000 to 600) ° e B s A</td><td>s</td><td>1-0 R1T185 4-0 22⁽¹⁾ [1] f 3-0 COL SL 2-0</td><td>1-1 1-2 L 48 3 Sheath ¹ DE DESCRII 3" Individ For longer leas Element DE DESCR Spring- Length</td><td>2 2-0 012(Terminations PTION Iual fluoropolyme ads insert 2 digit t Style RIPTION Ioaded element</td><td>3-0 1/2) - SL s er leads with terminal</td><td>4-0 22 pins</td></t<>	Element: RANCE ^[1] 200 to 200) ° e B Class B 200) °C s B s A 2000 to 600) ° e B s A	s	1-0 R1T185 4-0 22 ⁽¹⁾ [1] f 3-0 COL SL 2-0	1-1 1-2 L 48 3 Sheath ¹ DE DESCRII 3" Individ For longer leas Element DE DESCR Spring- Length	2 2-0 012(Terminations PTION Iual fluoropolyme ads insert 2 digit t Style RIPTION Ioaded element	3-0 1/2) - SL s er leads with terminal	4-0 22 pins
α = LOW RAN SINGLE R1T185L R5T185L LOW RAN RBF185L RAF185L HIGH RAN R1T185H RAT185H 1] Refer to General In	D Ω Plati 0.003 8 CODE IGE WIRE DUPLE R1T285 R5T285 IGE THIN I RBF285 RAF285 NGE WIRE R1T285 RAT285 0 RTD tole Iformation s	RTD TOLE WOUND (-2 X Image: Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2" X Image: Colspan="2">Colspan="2">Colspan="2">Colspan="2" X Image: Colspan="2">Colspan="2">Colspan="2" X Image: Colspan="2">Colspan="2">Colspan="2" X Image: Colspan="2">Colspan="2">Colspan="2" X Image: Colspan="2">Colspan="2" FILM (-50 to Colspan="2">Colspan="2" FILM (-50 to Colspan="2">Colspan="2" GIL Class WOUND (-2 Image: Colspan="2" Image: Colspan="2">Colspan="2" Image: Colspan="2"	Element: RANCE ^[1] 200 to 200) % e B Class B 200) % s B s A 200 to 600) % e B s A 200 to 600) % e B s A	s	1-0 R1T185 4-0 22 ⁽¹⁾ [1] f 3-0 COL SL 2-0	1-1 1-2 L 48 3 Sheath ¹ DE DESCRII 3" Individ For longer leas Element DE DESCR Spring- Length	2 2-0 012(Terminations PTION Iual fluoropolymo ads insert 2 digit t Style Style	3-0 1/2) - SL s er leads with terminal	4-0 22 pins
α = LOW RAM SINGLE R1T185L R5T185L LOW RAM RBF185L RAF185L HIGH RAI RAT185H 1] Refer to General In determine	D Ω Plati 0.003 8 CODE IGE WIRE R1T285 R5T285 IGE THIN I RBF285 RAF285 NGE WIRE R1T285 RAF285 NGE WIRE R1T285 0 RTD toler formation s specific tol	TOLE WOUND (-2 X Image: Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2" WOUND (-2 X Image: Colspan="2">Colspan="2">Colspan="2" WOUND (-2 X Image: Colspan="2">Colspan="2" X Image: Colspan="2">Colspan="2">Colspan="2" MULL (-50 to 5 Colspan="2">Colspan="2" FILM (-50 to 5 Colspan="2">Colspan="2" SL Colspan="2">Colspan="2" WOUND (-2 X Image: Colspan="2" Model (-50 to 55) Colspan="2" Colspan="2" GIL Colspan="2" Colspan="2" Image: Colspan="2">WOUND (-2 Image: Colspan="2">Colspan="2" Image: Colspan="2">Colspan="2" Image: Colspan="2">Colspan="2" Image: Colspan="2">Colspan="2" Image: Colspan="2" Image: Colspan="2" Image: Colspan="2" Image: Colspan="2" Image: Colspan="2" Image: Colspan="2" Image: Colspan="2">Colspan="2" Image: Colspan="2" Image: Colspan="2" Image: Colspan="2" Image: Colspan="2" Image: Colspan="2" Image: Colspan="2" Image: Colspan="2" Image: Colspan="2" Image: Colspan="2" Image: Colspan="2" </td <td>Element: RANCE^[1] 200 to 200) ° e B Class B 200) °C s B s A 200 to 600) ° e B s A 200 to 600) ° e B s A</td> <td>s</td> <td>1-0 R1T185 4-0 COE 22⁽¹⁾ [1] F 3-0 COE SL 2-0 COE Inset</td> <td>1-1 1-2 L 48 3 Sheath DE DESCRII 3" Individ Tor longer lea Element DE DESCR Spring- Length DE rt 3 Digit "X"</td> <td>2 2-0 012(Terminations PTION Iual fluoropolyme ads insert 2 digit t Style RIPTION Ioaded element</td> <td>3-0 1/2) - SL er leads with terminal length in inches. Exa</td> <td>4-0 22 pins</td>	Element: RANCE ^[1] 200 to 200) ° e B Class B 200) °C s B s A 200 to 600) ° e B s A 200 to 600) ° e B s A	s	1-0 R1T185 4-0 COE 22 ⁽¹⁾ [1] F 3-0 COE SL 2-0 COE Inset	1-1 1-2 L 48 3 Sheath DE DESCRII 3" Individ Tor longer lea Element DE DESCR Spring- Length DE rt 3 Digit "X"	2 2-0 012(Terminations PTION Iual fluoropolyme ads insert 2 digit t Style RIPTION Ioaded element	3-0 1/2) - SL er leads with terminal length in inches. Exa	4-0 22 pins
α = LOW RAN SINGLE R1T185L R5T185L LOW RAN RBF185L RAF185L RAF185L RIT185H R1T185H R1T185H R1T185H 1] Refer to General In determine 1-1 Sho	D Ω Plati 0.003 8 CODE IGE WIRE DUPLE R1T285 R5T285 IGE THIN I RBF285 RAF285 NGE WIRE R1T285 RAT285 0 RTD tole Iformation s	TOLE TOLE WOUND (-2 X Image: Colspan="2">Colspan="2">Colspan="2">Colspan="2" BL Grad Grad GL Class Class GL Class Class GH Grad Class GH Class Class GH Class Class Grad Class Class MOUND Class Class Grad Class	Element: RANCE ^[1] 200 to 200) % e B Class B 200) % s B s A 200 to 600) % e B s A 200 to 600) % e B s A	s	1-0 R1T185 4-0 COE 22 ⁽¹⁾ [1] F 3-0 COE SL 2-0 COE Inset	1-1 1-2 L 48 3 Sheath 3 DE DESCRII 3" Indivice For longer lease DE DESCR DE DESCRING DE DESCRING	2 2-0 Old 2 Terminations PTION Itual fluoropolyme ads insert 2 digit Style Style Style Imprion Ioaded element Ioaded element Imprion Ioaded element	3-0 1/2) - SL er leads with terminal length in inches. Exa	4-0 22 pins
a = .0 <i>W</i> RAN SINGLE R1T185L R5T185L .0 <i>W</i> RAN RBF185L HIGH RAN R4F185H HIGH RAN R4T185H 1] Refer to General In Refer to General In L1 Sh	CODE IGE WIRE RTT285 RST285 IGE THIN F RBF285 RAF285 RAF285 NGE WIRE RAT285 O RTD tolen formation s specific tol eath Dia	TOLE TOLE WOUND (-2 X SL Grad SL (1/5) FILM (-50 to SL Class FILM (-50 to SL Class WOUND (-2 SL Class WOUND (-2 SL Class WOUND (-2 SL Class WOUND (-2 SL CLASS SL SL CLASS SL SL CLASS SL S	Element: RANCE ^[1] 200 to 200) % e B Class B 200) % s B s A 200 to 600) % e B s A 200 to 600) % e B s A	s	1-0 R1T185 4-0 22 ^[1] [1] F 3-0 COL SL 2-0 COL Inse 1-2	1-1 1-2 L 48 3 Sheath 3 DE DESCRII 3" Indivice For longer lease DE DESCR DE DESCRING DE DESCRING	2 2-0 012(Terminations PTION Iual fluoropolyme ads insert 2 digit t Style IPTION Ioaded element Iength in inches Connection IPTION	3-0 1/2) - SL er leads with terminal length in inches. Exa	4-0 22 pins
QW RAN SINGLE 211185L 251185L QW RAN 2851185L AF185L 110GH RAN 211185H 200E 1 SODE 1 88	D Ω Plati 0.0038 CODE IGE WIRE RT1285 R51285 IGE THIN F RBF285 RAF285 NGE WIRE R11285 RAT285 0 RTD toler formation s specific tol eath Dia DIAMETER	TOLE TOLE WOUND (-2 X SL Grad SL (1/5) FILM (-50 to SL Class FILM (-50 to SL Class WOUND (-2 SL Class WOUND (-2 SL Class WOUND (-2 SL Class WOUND (-2 SL CLASS SL SL CLASS SL SL CLASS SL S	Element: RANCE ^[1] 200 to 200) % e B Class B 200) % s B s A 200 to 600) % e B s A 200 to 600) % e B s A	s	1-0 R1T185 4-0 COE 22 ⁽¹⁾ [1] F 3-0 COE SL 2-0 COE Insee 1-2 COE	1-1 1-2 L 48 3 Sheath DE DESCRI 3" Individ Tori longer leas Element DE DESCR Spring- Length DE rt 3 Digit "X" Element DE DESCR	2 2-0 Oll2(Terminations PTION Iual fluoropolyme ads insert 2 digit t Style Style IPTION Ioaded element Iength in inches Connection IPTION Iement	3-0 1/2) - SL er leads with terminal length in inches. Exa	4-0 22 pins



SENSORS WITH CONNECTION HEADS

ORDER CODES

		1-0	1-	1	1-2	1-3	1-4			1-5	1-6		
xample	Order Number:	440	-	-	3	85	U] - [S(C)-200) C		
-0 Transn	nitter Type										1-6	Uni	it of Measure
CODE	DESCRIPTION										COE	E	DESCRIPTION
440 ^[1]	(4 to 20) mA programmat mounted RTD Transmitte										C F		Celsius Fahrenheit
441	(4 to 20) mA programmat mounted universal Transi												Tamennen
442	(4 to 20) mA HART [®] programmed universal Transi		ead-						i	1-5 Ra	nge		
35T-642A	(4 to 20) mA HART [®] Field general-purpose aluminu		r with										TION t – upper limit)
′5T-642C	(4 to 20) mA HART [®] Field explosion-proof aluminun CSA / XP Class I / Div 1 / / DIP Class II / Div 1 / Gro	d Transmitter n housing FN / Groups A,B	M/ 3,C,D				1-4	Fa	ilure	Mode	(10110)		
	Class III / NI Class I / Div						СО	DE	DE	SCRIPTI	NC		
	A,B,C,D						U		Ups	scale Bur	nout ≥	20.5	5 mA
T82-00 ^[2]	(4 to 20) mA dual input, is head-mounted transmitte		RT®				D		Dov	wnscale E	Burnou	t ≤ 3	8.8 mA
36T82-D10 ^[2]	(4 to 20) mA dual input H with digital display and ge aluminum housing with g	eneral-purpo				1-3	Se	enso	r Typ	e			
	able with 2- or 3-wire input	connection	and			COI	DE	DES	CRIP	TION			
Pt100 sensor [2] See transp		nformation				J		Туре	e J the	ermocoup	le		
[2] See transmitter section for ordering information						ĸ		Tuno		ormooour			

1-1 Options (For 642 Series only)

CODE	DESCRIPTION
Т	Solid cover
D	Glass cover with digital display
Leave bla	nk if using 440, 441, or 442

1-2 Input Type

-	
CODE	DESCRIPTION
00 ^[1]	Unconfigured
1	Thermocouple (TC)
2	RTD (2-wire)
3	RTD (3-wire)
4	RTD (4-wire)
[1] Defaul	t setting supplied as 3-wire Pt100 (0-100) °C

Type K thermocouple K

Т	Type T thermocouple
N	Type N thermocouple
E	Type E thermocouple
85	100 ohm platinum (α = 0.003 85 °C ⁻¹)

For complete transmitter specifications see Transmitter Section.

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Configuration Code GP07 Fixed-Sheath RTD Assemblies with Miniature Connection Heads

Fixed-sheath RTD assemblies with miniature heads are offered with mounting fittings that are welded or brazed to the sheath for direct immersion into a process. The miniature heads offer a compact design and are ideal for laboratory applications or applications where space is limited. The RTD assemblies are supplied with a 316 stainless steel sheath in several diameters. They are offered in various tolerances and temperature ranges as noted below.

ORDER CODES

006(1/2) -

2-0





4-0

8HPB

3

00

Example Order Number: RBF185L

1-0 100 Ω Platinum RTD Elements α = 0.003 85 °C⁻¹

CODE	TOLERANCE ^[1]					
LOW RANGE WIRE WOUND (-200 to 200) %						
SINGLE						
R1T185L	Grade B					
R5T185L	(1/5) Class B					
LOW RANG	GE THIN FILM (-50 to 200) °C					
RBF185L	Class B					
RAF185L	Class A					
HIGH RANGE WIRE WOUND (-200 to 600) °C						
R1T185H	Grade B					
[1] Refer to RTD tolerance information in the General Information section for calculations to determine specific tolerance at temperature.						

1-1 Sheath Diameters

CODE	DIAMETERS (inches) 316 SS	
28	1/8	
38	3/16	
48	1/4	
68	3/8	

1-2 Element Connection

CODE DESCRIPTION	
2	2 wire element
3	3 wire element
4	4 wire element

2-0 "X" Dimensions

Insert three digit "X" length in inches.

Sheath lengths over 72" will be shipped in a coiled configuration unless otherwise specified.

3-0 No Fitting

CODE 00

1-1 1-2

48 3

1-0

3-1 One-Time Adjustable Fittings

o i one inne Aujustable i ittings				
CODE	TYPE	NPT SIZE (inches)	PRESSURE- RATED	AVAILABLE SHEATH DIAMETERS (inches)
01A	303 SS	1/8	NO	1/8, 3/16, 1/4
05A	316 SS	1/8	YES	1/8, 3/16, 1/4
05B	316 SS	1/4	YES	1/8, 3/16, 1/4, 3/8
05C	316 SS	1/2	YES	1/8, 1/4, 3/8
15A	Brass	1/8	NO	1/8, 3/16, 1/4
15B	Brass	1/4	NO	3/16, 1/4, 3/8
15C	Brass	1/2	NO	1/4, 3/8

4-0 Head Mounting Fittings

4-1

25

CODE	DESCRIPTION	
9HNB	1/4" x 1/4" stainless steel hex nipple	
8HPB	1/4" stainless steel hex bushing (no process threads)	
8CFB	1/4" NPT 316 stainless steel compression fitting (no process threads)	
22CFB	1/4" NPT brass compression fitting (no process threads)	

4-1 Miniature Head Terminations

CODE	DESCRIPTION
17	Miniature plastic head (3/8" NPT conduit opening)
25	Miniature nickel-plated head

3-2 Re-Adjustable Compression Fittings

	-	-	-
CODE	ТҮРЕ	NPT SIZE (inches)	AVAILABLE SHEATH DIAMETERS (inches)
10A	303 SS	1/8	1/8, 3/16
10B	303 SS	1/4	1/4, 3/8
10C	303 SS	1/2	1/4, 3/8
12A	316 SS	1/8	1/8, 3/16, 1/4
12B	316 SS	1/4	1/8, 3/16, 1/4, 3/8
12C	316 SS	1/2	1/8, 1/4, 3/8
11A	Brass	1/8	1/8, 3/16, 1/4
11B	Brass	1/4	1/8, 3/16, 1/4, 3/8
11C	Brass	1/2	1/4, 3/8
19C	Spring-loaded SS well fitting	1/2	3/16, 1/4
FEP gland standard 204 °C [400 °F] max.			

3-3 Fixed Bushings

	je inter zaemije		
CODE 316 SS	MOUNTING THREAD NPT (inches)	AVAILABLE SHEATH DIAMETERS (inches)	
8A[1]	1/8	1/8, 3/16, 1/4	
8B ^[1]	1/4	1/8, 3/16, 1/4, 3/8	
8C ^[1]	1/2	1/8, 3/16, 1/4, 3/8	
8D ^[1] 3/4 1/8, 3/16, 1/4, 3/8		1/8, 3/16, 1/4, 3/8	
[1] When ordering fixed bushings, specify order code above plus insert length "U", as measured from hot tip to bottom of threaded bushing. EXAMPLE: order code 8A06 is 1/8" NPT, 316 SS bushing located 6" from hot tip.			



SENSORS WITH CONNECTION HEADS

Configuration Code GP08 Fixed-Sheath Thermocouple Assemblies with Miniature Connection Heads

Fixed-Sheath Thermocouple Assemblies with miniature connection heads are offered with mounting fittings that are welded or brazed to the sheath for direct immersion into a process. The miniature heads offer a compact design and are ideal for laboratory applications or applications where space is limited. The MgO-insulated thermocouple assemblies are offered in a variety of calibrations, sheath diameters, and sheath materials.



ORDER CODES

3

01A

2-0

012

Example Order Number:

1-0 Thermocouple Types		
CODE		
SINGLE	DUPLEX	
E	EE	
J	JJ	
К	KK	

1-1 Sheath Diameters		
CODE	DIAMETER (inches)	
2	1/8	
•	0/10	

TΤ

2	1/8
3	3/16
4	1/4
6	3/8

1-2 Sheath Materials		
CODE	MATERIAL	STANDARD AVAILABLE TYPES
3	Alloy 600	К
4	310 SS	К
5	446 SS	K ^[1]
8	316 SS	E, J, K, T
[1] All concore with 446SS		

 All sensors with 446SS sheaths must have an ungrounded measuring junction.

Measuring 1-3 Junctions CODE DESCRIPTION

G	Grounded junction
U	Ungrounded junction
E	Exposed junction

'X' Dimension 2-0

Insert three digit "X" length in inches Sheath lengths over 72" will be

shipped in a coiled configuration unless otherwise specified.

3-0	No	Fitting

1-0

J

CODE 00

1-1 1-2

8 U

3

3-1 One-Time Adjustable Fittings

1-3

5-1 One-Time Aujustable Fittings								
TYPE	NPT SIZE (inches)							
303 SS	1/8	NO	1/8, 3/16, 1/4					
316 SS	1/8	YES	1/8, 3/16, 1/4					
316 SS	1/4	YES	1/8, 3/16, 1/4, 3/8					
316 SS	1/2	YES	1/8, 1/4, 3/8					
Brass	1/8	NO	1/8, 3/16, 1/4					
Brass	1/4	NO	3/16, 1/4, 3/8					
Brass	1/2	NO	1/4, 3/8					
	303 SS 316 SS 316 SS 316 SS Brass Brass	TYPE (inches) 303 SS 1/8 316 SS 1/8 316 SS 1/4 316 SS 1/2 Brass 1/8 Brass 1/4	TYPE (inches) RATED 303 SS 1/8 NO 316 SS 1/8 YES 316 SS 1/4 YES 316 SS 1/2 YES Brass 1/8 NO					

3-2 Re-Adjustable Compression Fittings

	-	-	-		
CODE	TYPE	NPT SIZE (inches)	AVAILABLE SHEATH DIAMETERS (inches)		
10A	303 SS	1/8	1/8, 3/16		
10B	303 SS	1/4	1/4, 3/8		
10C	303 SS	1/2	1/4, 3/8		
12A	316 SS	1/8	1/8, 3/16, 1/4		
12B	316 SS	1/4	1/8, 3/16, 1/4, 3/8		
12C	316 SS	1/2	1/8, 1/4, 3/8		
11A	Brass	1/8	1/8, 3/16, 1/4		
11B	Brass	1/4	1/8, 3/16, 1/4, 3/8		
11C	Brass	1/2	1/4, 3/8		
19C	9C Spring-loaded SS well fitting		3/16, 1/4		
FEP gland standard 204 °C [400 °F] max.					

3-3 Fixed Bushings

CODE	MOUNTING THREAD	AVAILABLE SHEATH				
316 SS	NPT (inches)	DIAMETERS (inches)				
8A ^[1]	1/8	1/8, 3/16, 1/4				
8B ^[1]	1/4	1/8, 3/16, 1/4, 3/8				
8C[1]	1/2	1/8, 3/16, 1/4, 3/8				
8D ^[1]	^[1] 3/4 1/8, 3/16, 1/4, 3/8					
[1] When ordering fixed bushings, specify order code above plus insert length "U", as measured from hot tip to bottom of threaded bushing. EXAMPLE: order code 8A06 is 1/8" NPT, 316 SS bushing located 6" from hot tip.						

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4-0 Head Mounting Fittings

4-1

25

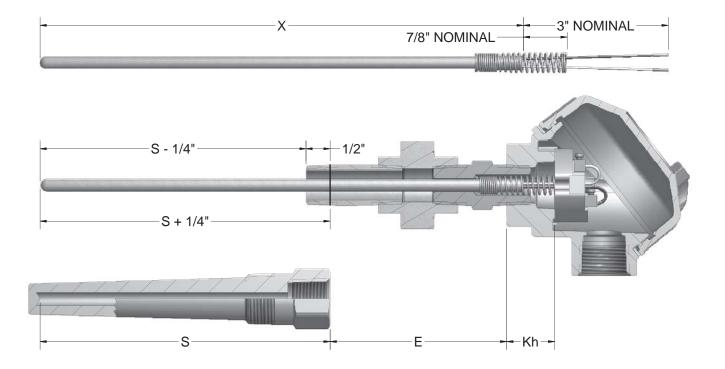
CODE	DESCRIPTION
9HNB	1/4" x 1/4" stainless steel hex nipple
8HPB	1/4" stainless steel hex bushing (no process threads)
8CFB	1/4" NPT 316 stainless steel compression fitting (no process threads)
22CFB	1/4" NPT brass compression fitting (no process threads)

4-1 Miniature Head Terminations

CODE	DESCRIPTION
17	Miniature plastic head (3/8" NPT conduit opening)
25	Miniature nickel-plated head

4-0

8HPB



Pyromation Head Order Code	Kh Dimension in inches	Formula for SL option	Formula for SC option
31	1.00	X = S + E + 5/8"	X = S + E
34	1.00	X = S + E + 5/8"	X = S + E
49	1.00	X = S + E + 5/8"	X = S + E
63	1.00	X = S + E + 5/8"	X = S + E
74	1.625	X = S + E + 1 1/4"	X = S + E
91	1.00	X = S + E + 5/8"	X = S + E
93	1.00	X = S + E + 5/8"	X = S + E
94	1.00	X = S + E + 5/8"	X = S + E
71	1.00	X = S + E + 5/8"	X = S + E
72	1.125	X = S + E + 3/4"	X = S + E
81	1.00	X = S + E + 5/8"	X = S + E
82	1.00	X = S + E + 5/8"	X = S + E



General-Purpose Connection Head and Transmitter Selection Guide

				Connection Heads					
Complete Transmitter		31	34	35	49	63	91		
Complete Transmitter Specifications are located in the Transmitter Section. Complete Connection Head Specifications are			Ð			Ð			
located in the Accessories Section.		Aluminum Screw- Cover Head	Cast Iron Screw- Cover Head	Aluminum Field Transmitter Housing	Flip-Top Aluminum Head	White Polypropyl- ene Screw- Cover	316L Stainless Steel Screw- Cover Head		
	Temperatu	e Transmitters	5	Tieau	Tieau	Tiousing		Head	Coverneau
T-440		Input: Pt100 RTD Only	Programmable head-mounted transmitter, (4 to 20) mA analog output	х	х		х	Х	х
T-441		Input: Thermocouple, RTD, Other	Programmable head-mounted transmitter, isolated, (4 to 20) mA analog output	x	x		х	х	Х
T-442	HART	Input: Thermocouple, RTD, Other	Programmable head-mounted transmitter, isolated, HART [®] protocol, (4 to 20) mA analog output	х	х		х	х	Х
T-82	HART	Input: Thermocouple, RTD, Other	(4 to 20) mA dual input, isolated HART® head-mounted transmitter	x	x		х	х	х
T-642	HART	Input: Thermocouple, RTD, Other	Programmable field transmitter, isolated, HART® protocol, (4 to 20) mA analog output			х			
T-642 w/ display		Input: Thermocouple, RTD, Other	Programmable field transmitter, isolated, HART® protocol, (4 to 20) mA analog output with digital display			х			
36T82- D10	KART	Input: Thermocouple, RTD, Other	(4 to 20) mA dual input, HART® transmitter with digital display and general purpose aluminum housing, Group A	Unit includes housing and transmitter.					

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