

## **SHEATH WITH LEADWIRE AND ARMOR**

### **How to build a part number:**

To order an Applied Sensor Technologies temperature sensor, select the requirements for the categories listed below and fill in the corresponding boxes with your selection. Don't see exactly what you need? Give us a call!

SENSOR TYPE	ASSEMBLY STYLE	SHEATH DIAMETER	SHEATH MATERIAL	CALIBRATION	HOT JUNCTION	SHEATH LENGTH	ARMOR CABLE LENGTH	OPTIONS

#### **SENSOR TYPE\***

**GP** – General purpose thermocouple

**MI** – Mineral insulated thermocouple

#### **ASSEMBLY STYLE**

**03** – Sheath with leadwire and flexible stainless steel armor cable; fiberglass-insulated conductors; fiberglass jacket.

**03P** – PVC-coated armor, Teflon®-insulated conductors

**03T** – Teflon® coated armor, Teflon®-insulated conductors

#### **SHEATH DIAMETER** (in inches)

**4** – 1/8 (0.125)

**6** – 3/16 (0.188)

**7** – 1/4 (0.250)

**9** – 3/8 (0.375)

#### **SHEATH MATERIAL**

**3** – 316 stainless steel

**5** – Inconel® 600 (MI only)

#### **CALIBRATION** Standard limits

**J** – Single J

**JJ** – Dual J

**K** – Single K

**KK** – Dual K

**T** – Single T

**TT** – Dual T

**E** – Single E

**EE** – Dual E

*Special limits are available – consult AST*

*Dual junction not available with GP thermocouples in sheath diameter 4*

#### **HOT JUNCTION**

**G** – Grounded junction

**U** – Ungrounded junction

**E** – Exposed junction

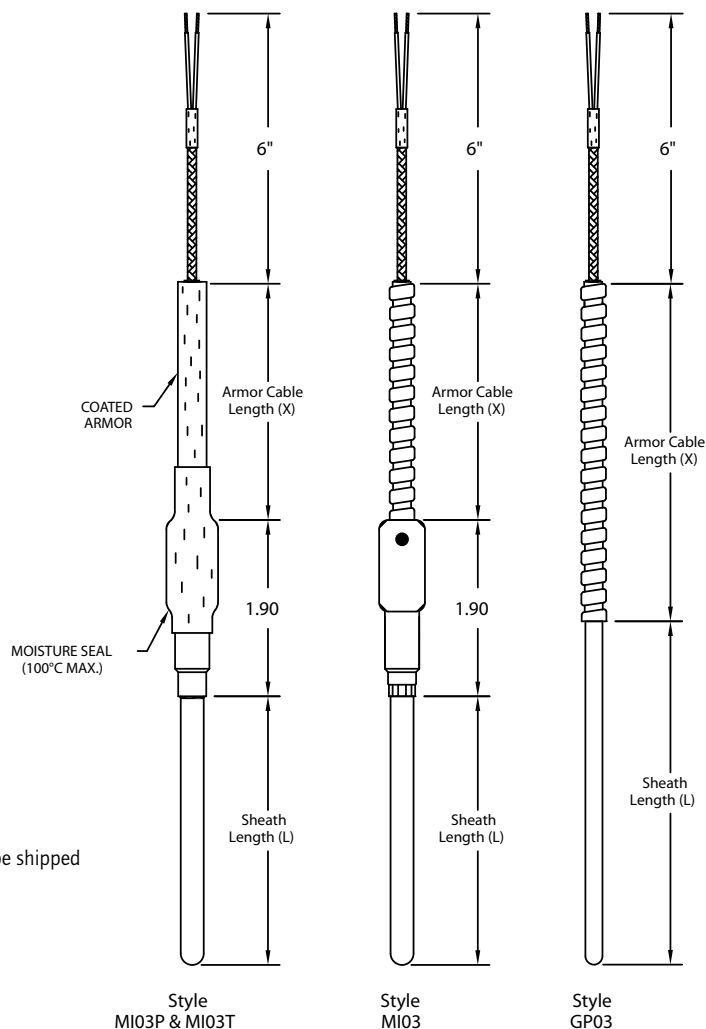
**SHEATH LENGTH** (Note: maximum L=96" for GP; for MI, lengths over L84 will be shipped coiled unless otherwise specified)

**L#** – (e.g., L6 = 6 inch sheath, L12.5 = 12.5 inch length)

#### **ARMOR CABLE LENGTH**

**X#** – (e.g., X72 = 72 inch length)

**OPTIONS** – see back page



\*Note: GP thermocouples, manufactured using hollow tubing and wire, tend to be lower cost than MI, but cannot be bent in the field and are standardly designed for sensing temperatures below 500°F. MI thermocouples are more rugged than GP due to compacted magnesium-oxide powder insulation, can be bent in the field, and are appropriate for the temperature range of the sensor and sheath.

## STYLE 03

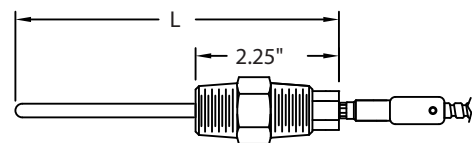
### AVAILABLE OPTIONS and MODIFICATIONS

ASSEMBLY OPTIONS				
Option Code		Description		
TAG1		Stainless steel tag and wire		
B90-		90° bend in sheath (specify length from tip in inches e.g., B90-6)		
B45-		45° bend in sheath (specify length from tip in inches e.g., B45-6)		
CAL1		NIST traceable calibration [specify point(s)]		
CRT1		Certificate of conformance		
HT10		High temperature (900°F) transition. (Standard transition rated 500°F/260°C)		
COMPRESSION FITTINGS				
Option Code		NPT	Material	Ferrule
CF10		1/8"	Stainless steel	Stainless steel
CF11		1/8"	Stainless steel	Teflon®
CF12		1/8"	Brass	Brass
CF20		1/4"	Stainless steel	Stainless steel
CF21		1/4"	Stainless steel	Teflon®
CF22		1/4"	Brass	Brass
CF30		1/2"	Stainless steel	Stainless steel
CF31		1/2"	Stainless steel	Teflon®
CF32		1/2"	Brass	Brass
LEADWIRE AND ARMOR OPTIONS				
BA50		Bayonet cap on armor, no spring, GP styles only <b>(formerly Style 25)</b>		
Note: For assembly with sheath, armor and terminal head, see Style 65.				
SPRING-LOADED FITTINGS				
Stainless steel, non-sealed, for sensor diameters 6, 7 & 9				
Option Code		Description		
HF50		1/2" x 1/2"		
Stainless steel, o-ring sealed, for sensor diameters 6 and 7. O-ring is Buna N, rated -10 to 200°F (-23 to 93°C). Maximum pressure 15 psi.				
HF51		1/2" x 1/2"		
Notes:				
1. Fitting reduces effective sensor L length by 2.25" (e.g., to properly spring-load into a 9" well, the sensor should be specified with 11.25" minimum).				
2. Fitting position is adjustable in the field.				

WIRING CONNECTION OPTIONS	
WC76	#6 spade terminals, plated copper
WC70	#10 spade terminals, plated copper
WC84	1/4" push-on insulated terminals, plated copper
WC90	#10 ring terminals
WC98	#8 ring terminals
<b>PLUGS AND JACKS</b> (Note: plug is designed to be attached to sensor assemblies. Jack options – for customer wiring – should only be specified if plug option is also included. Cable clamp is included for both plug and jack options.)	
PJ10	Standard plug, rated to 177°C (350°F)
PJ20	Standard jack, rated to 177°C (350°F)
PJ30	Miniature plug, rated to 177°C (350°F)
PJ40	Miniature jack, rated to 177°C (350°F)
PJ50	High temp. plug, rated to 260°C (500°F)
PJ60	High temp. jack, rated to 260°C (500°F)
BX CONNECTORS	
WC40	1/2"
WC50	3/4"
WELD PADS	
WP00	Horizontal pad/flat
WP10	1" nominal pipe size
WP15	1.5" nominal pipe size
WP20	2" nominal pipe size
WP25	2.5" nominal pipe size
WP30	3" nominal pipe size
WP35	3.5" nominal pipe size

### EXTENSION WIRE

A selection of extension-grade thermocouple wire is available to connect the sensor to its input device. Consult Accessories section.



HF50 Option