

## SPRING-LOADED ASSEMBLY AND MOUNTING HARDWARE WITH EXPLOSION-PROOF TERMINAL HEAD

### 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	CONNECTION	CONNECTION LENGTH	SHEATH DIAMETER	SHEATH MATERIAL	TEMPERATURE RANGE	SHEATH LENGTH	OPTIONS

#### SENSOR TYPE (See page 2-4b for optional elements)

**RTP1** – Platinum; DIN 0.00385; 100 ohm +/- 0.12% @ 0°C; 3-wire construction  
**(For dual element, add prefix "D"- e.g., DRTP1)**

#### ASSEMBLY STYLE

**77** – Sheath with cast aluminum head; spring-loaded in head; head CSA/FM approved for Class I, Division I, Groups B, C, D; Class II, Groups E, F, G, including union; screw cover with chain and gasketed o-ring. Ceramic terminal block; 1/2" NPT conduit and process connections. Note: Approval applies to terminal head only.

#### CONNECTION

**H** – Head only; 1/2" NPT (female) instrument connection  
**N** – 1/2" NPT carbon steel nipple only  
**NU** – 1/2" NPT carbon steel nipple and plated steel union  
**NUN** – 1/2" NPT carbon steel nipples and plated steel union  
Add suffix "**1S**" for 304 stainless steel nipples

#### CONNECTION LENGTH

**###** – (e.g., 006=6 inch)  
See chart below for standard available lengths.

#### SHEATH DIAMETER (in inches) (see below for restrictions)

**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

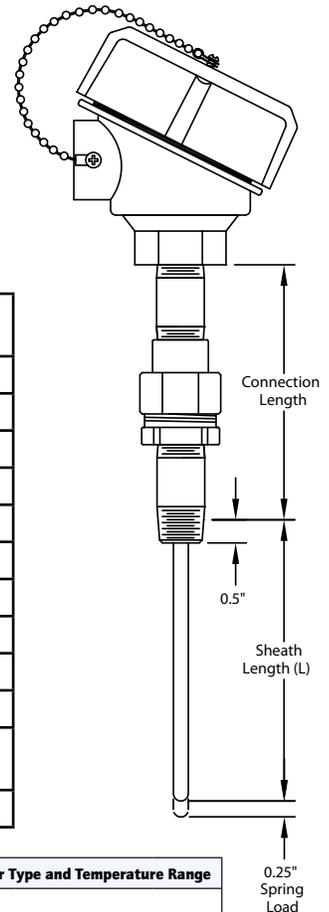
#### TEMPERATURE RANGE - Minimum and maximum operating temperatures

**1** – -45 to 260°C (-50 to 500°F)  
**2** – -45 to 482°C (-50 to 900°F)  
**3** – -45 to 788°C (-50 to 1450°F)  
**4** – -200 to 260°C (-328 to 500°F)

#### SHEATH LENGTH (for lengths greater than L=36", consult AST)

**L#** – (e.g., L6 = 6 inch sheath)

**OPTIONS** – see back page



STANDARD AVAILABLE CONNECTION LENGTHS		
N	NU	NUN
N/A	2.00	2.50
0.50	2.50	3.00*
1.00	3.00	4.00*
1.50	3.50	5.00
2.00	4.00	6.00*
3.00	5.00	8.00
4.00	6.00	10.00
5.00	7.00	12.00
6.00	8.00	14.00
*NUN 2S OPTION AVAILABLE IN THESE LENGTHS ONLY.		
DIMENSIONS ARE GIVEN IN INCHES		

Smallest Diameter Sheath Available By Sensor Type and Temperature Range							
SINGLE							
Temp Range	RTP 1	RTP 1A	RTP 1AA	RTP 6	RTP 7	RTP 7A	RTP 7AA
1	1/8	1/8	1/8	1/8	3/16	3/16	3/16
2	3/16	3/16	3/16	3/16	3/16	3/16	3/16
3	3/16			3/16	3/16		
4	1/8			1/8	3/16		
DUAL							
Temp Range	DRTP 1	DRTP 1A	DRTP 1AA	DRTP 6	DRTP 7	DRTP 7A	DRTP 7AA
1	3/16	3/16	3/16	3/16			
2	1/4	1/4	1/4	3/16			
3	1/4			1/4			
4	3/16			3/16			

# STYLE 77

## AVAILABLE OPTIONS and MODIFICATIONS

OPTIONAL ELEMENTS		
RTDs are standardly platinum, 100-ohm, DIN-curve elements with a 0.00385 alpha.		
Option Code	Accuracy (at 0°C)	Construction
RTP1 (std.)	±0.12%	3-wire
RTP1A	<b>±0.06%</b>	3-wire
RTP1AA	<b>±0.01%</b>	3-wire
RTP6	±0.12%	<b>2-wire</b>
RTP7	±0.12%	<b>4-wire</b>
RTP7A	<b>±0.06%</b>	<b>4-wire</b>
RTP7AA	<b>±0.01%</b>	<b>4-wire</b>
Notes:		
1. For dual element, add prefix "D" (e.g., DRTP6)		
2. Additional materials, curves and resistance values are available - see Capabilities brochure.		
ASSEMBLY OPTIONS		
Option Codes	Description	
TAG1	Stainless steel tag and wire	
CAL1	NIST traceable calibration [specify point(s)]	
CRT1	Certificate of conformance	
TRANSMITTERS		
See Style 48 for available transmitters		

EXPLOSION-PROOF TERMINAL HEAD OPTIONS		
Option Code	Process Connection	Conduit Connection
Cast aluminum; screw cover with chain; o-ring gasket; ceramic terminal block; FM/CSA approved for Class I Div. 1, Groups B, C and D; Class II Groups E, F and G (Gasket rated to 100°C exposure); internal ground screw		
HD71	1/2"	3/4"
Same as above, except epoxy-coated		
HD80	1/2"	1/2"
HD81	1/2"	3/4"

Note: See Accessories section for outline drawings and additional specs.

### THERMOWELLS & PROTECTION TUBES

For a complete offering of metal, ceramic and composite material thermowells and protection tubes, please see the Thermowell and Protection Tube sections.

