NEMA 4 CONNECTION HEAD WITH WELDED PROCESS CONNECTION

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	TEMPERATURE RANGE	SHEATH LENGTH	OPTIONS

SENSOR TYPE (See page 2-1b 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
15 – **Sheath with cast aluminum head and 1/2" NPT welded stainless steel process connection**; head conforms to NEMA 4 requirements; 3/4" NPT conduit connection; ceramic terminal block; gasketed screw cover with stainless steel chain

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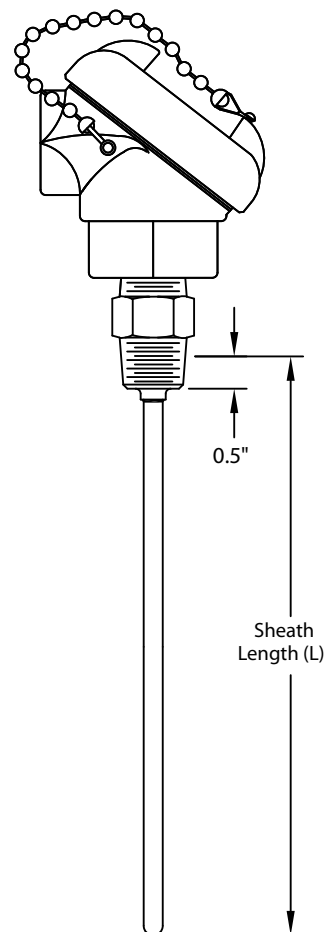**2** – -45 to 482°C (-50 to 900°F)
3 – -45 to 788°C (-50 to 1450°F)
4 – -200 to 260°C (-328 to 500°F)

SHEATH LENGTH (for lengths greater than L=36", consult AST)
L# – (e.g., L6 = 6 inch sheath)

OPTIONS – see back page

0.5"

Sheath Length (L)

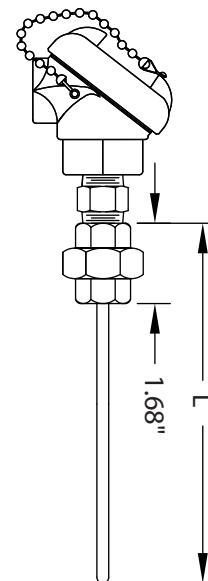| Smallest Diameter Sheath Available By Sensor Type and Temperature Range							
SINGLE							
Temp Range	RTP 1	RTP 1A	RTP 1AA	RTP 6	RTP 7	RTP 7A	RTP 7AA
1	1/8	1/8	1/8	1/8	3/16	3/16	3/16
2	3/16	3/16	3/16	3/16	3/16	3/16	3/16
3	3/16			3/16	3/16		
4	1/8			1/8	3/16		
DUAL							
Temp Range	DRTP 1	DRTP 1A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

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	**±0.06%**	3-wire
RTP1AA	**±0.01%**	3-wire
RTP6	±0.12%	**2-wire**
RTP7	±0.12%	**4-wire**
RTP7A	**±0.06%**	**4-wire**
RTP7AA	**±0.01%**	**4-wire**

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 Code	Description
TAG1	Stainless steel tag and wire
CAL1	NIST traceable calibration [specify point(s)]
CRT1	Certificate of conformance
PC25	1/4" NPT process connection
PC75	3/4" NPT process connection
RB10	Replace terminal block with customer supplied part
RB11	Supply assembly with no terminal block inside head
WC20	Wiring cable gland for 0.187 - 0.312 diameter cables, for terminal heads with 1/2" NPT conduit connections
WC21	Wiring cable gland for 0.125 - 0.187 diameter cables, for terminal heads with 1/2" NPT conduit connections

TRANSMITTERS – For complete specs, see Transmitters section

TR11	4-20 mA, 2-wire transmitter, single input, isolated output; specify range, units of measure (e.g., 0-200°C) and optional terminal head with *.
TR12	4-20 mA, 2-wire transmitter, single input, non-isolated output; specify range and units of measure (e.g., 0-200°C) and terminal head with *.
TR13	HART®/ 4-20 mA, 2-wire transmitter, single input, isolated output; specify range and units of measure (e.g., 0-200°C) and terminal head with *.

UNION CONNECTOR (converts male connection to female)

Option Code	Description
UC10	Stainless steel, 1/2" x 1/2" NPT, ordinary location

Note: adding the union connector reduces the sensor's L length by 1.68" (see view). Adjust L dimension accordingly.

NEMA 4 OR 4X TERMINAL HEAD OPTIONS

Head without ground screw	Head with internal ground screw	Process Connection	Conduit Connection
Cast aluminum, screw cover with chain, NEMA 4			
HD10*	HD11*	1/2"	1/2"
Std.*	HD13*	1/2"	3/4"
Epoxy-coated aluminum, screw cover with chain, NEMA 4X			
HD50*	HD51*	1/2"	1/2"
HD52*	HD53*	1/2"	3/4"
Cast iron, screw cover with chain, NEMA 4			
HD20*	HD21*	1/2"	1/2"
HD22*	HD23*	1/2"	3/4"
316 stainless steel, screw cover with chain, NEMA 4X			
HD40*	HD41*	1/2"	3/4"
White polypropylene, screw cover with chain, NEMA 4			
HD30	N/A	1/2"	3/4"
Black polypropylene, screw cover with chain, NEMA 4			
HD31	N/A	1/2"	3/4"
Nylon, screw cover			
HD32	N/A	1/2"	1/2"
*can be used with transmitters			

Notes:
1. See Accessories for additional information
2. For former Style 16, use option HD20
3. For former Style 29, use option HD32

UC10 Option

Note: Many non-standard options, including additional sheath diameters and materials, may also be available – consult AST for specific requirements. HART® is a registered trademark of the HART Communication Foundation.

APPLIED SENSOR TECHNOLOGIES
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