

CONNECTION HEAD WITH WELDED HEX FITTING

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	OPTIONS

SENSOR TYPE

MI – Mineral insulated thermocouple

ASSEMBLY STYLE

21 – **Sheath with cast aluminum head and welded stainless steel connection**; for use as ambient sensor or with compression fitting for process mounting; head conforms to NEMA 4 requirements; 3/4" conduit connection; ceramic terminal block; gasketed screw cover with stainless steel chain. See page 1-7b for other head options.

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

CALIBRATION – Standard Limits

J – Single J	JJ – Dual J
K – Single K	KK – Dual K
T – Single T	TT – Dual T

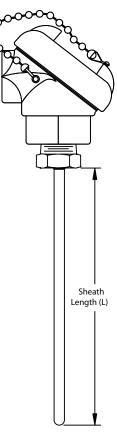
E – Single E **EE** – Dual E Special limits are available – consult AST

HOT JUNCTION

- **G** Grounded junction
- $\boldsymbol{\mathsf{U}}$ Ungrounded junction
- E Exposed junction

<u>SHEATH LENGTH</u> (Note: lengths over L84 will be shipped coiled unless otherwise specified at time of order) **L#** – (e.g., $L6 = 6^{"}$ sheath, L12.5 = 12.5" length)

OPTIONS – see back page





ASSEMBLY OPTIC	ONS					
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				
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				
COMPRESSION F	ITTIN	IGS (for diam	eters 4, 6, 7)			
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		
TRANSMITTERS -	for c	omplete specs	s, see Transmitters see	ction		
TR11	rar hea	ige, units of m	, single input, isolate neasure (e.g., 0-200° e Accessories section	C) and optional		
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 *.					
iso		HART®/ 4-20 mA, 2-wire transmitter, single input, solated output; specify range and units of measure (e.g., 0-200°C) and terminal head with *.				
WELD PADS						
Option Code	Radi	us To Fit Pipe				
WP00	Hori	zontal pad∕fl	at			
WP10	1″ n	ominal pipe si	ze			
WP15		nominal pipe				
WP20 2" nom		minal pipe size				
WP25 2.5"		nominal pipe size				
		nominal pipe size				
		nominal pipe size				
WP40	4" nominal pipe size					

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

STYLE 21

AVAILABLE OPTIONS and MODIFICATIONS

NEMA 4 OR 4X	FERMINAL HEAD	OPTIONS					
Head without ground screw	Head with internal ground screw	Process Connection		Conduit Connection			
Cast aluminum, screw cover with chain							
HD10*	1/2"		1/2"				
Std.*	HD13*	1/2"		3/4"			
Epoxy-coated, cast aluminum, NEMA 4X							
HD50*	HD51*			1/2"			
HD52*	1/2"		3/4"				
Cast iron, screw cover with chain							
HD20*	HD21* 1/2"			1/2"			
HD22*	HD23*	1/2"		3/4"			
316 stainless steel	, screw cover; NEM	A 4X					
HD40* HD41* 1/2"				3/4"			
Polypropylene, wh	ropylene, white, screw cover						
HD30	N/A	1/2"		3/4"			
Polypropylene, black screw cover							
HD31	N/A	1/2"		3/4"			
Nylon, screw cover							
HD32	N/A	1/2"		1/2"			
EXPLOSION-PRO	OF TERMINAL H	EAD OPTIO	NS				
EXPLOSION-PRO Option Code	OF TERMINAL HI			t Connection			
Option Code Cast aluminum, sc ceramic terminal b	1	on in; o-ring ga roved for Cl	Conduit isket rat	ed to 100°C;			
Option Code Cast aluminum, sc ceramic terminal b	Process Connection rew cover with cha plock; FM/CSA app	on in; o-ring ga roved for Cl	Conduit isket rat	ed to 100°C;			
Option Code Cast aluminum, sc ceramic terminal b D; Class II, Groups	Process Connection rew cover with cha plock; FM/CSA app E, F, G; internal group	on in; o-ring ga roved for Cl	Conduit isket rat ass I Div	ed to 100°C;			
Option Code Cast aluminum, sc ceramic terminal b D; Class II, Groups HD70* HD71*	Process Connective rew cover with cha plock; FM/CSA app E, F, G; internal group 1/2"	on in; o-ring ga roved for Cl ound screw	Conduit isket rat ass I Div 1/2"	ed to 100°C;			
Option Code Cast aluminum, sc ceramic terminal b D; Class II, Groups HD70* HD71*	Process Connective rew cover with cha block; FM/CSA app E, F, G; internal group 1/2" 1/2"	on in; o-ring ga roved for Cl ound screw	Conduit isket rat ass I Div 1/2"	ed to 100°C;			
Option Code Cast aluminum, sc ceramic terminal b D; Class II, Groups HD70* HD71* Stainless steel (sar	Process Connection rew cover with cha plock; FM/CSA app E, F, G; internal groun 1/2" 1/2" ne specs as HD70/	on in; o-ring ga roved for Cl ound screw	Conduit isket rati ass I Div 1/2" 3/4"	ed to 100°C;			
Option Code Cast aluminum, sc ceramic terminal b D; Class II, Groups HD70* HD71* Stainless steel (sar HD74* HD75*	Process Connective rew cover with cha plock; FM/CSA app E, F, G; internal group 1/2" 1/2" ne specs as HD70/ 1/2"	on in; o-ring ga roved for Cl ound screw 771)	Conduit isket rat ass I Div 1/2" 3/4" 1/2"	ed to 100°C;			
Option Code Cast aluminum, sc ceramic terminal b D; Class II, Groups HD70* HD71* Stainless steel (sar HD74* HD75*	Process Connective rew cover with cha block; FM/CSA app E, F, G; internal ground 1/2" 1/2" ne specs as HD70/ 1/2" 1/2"	on in; o-ring ga roved for Cl ound screw 771)	Conduit isket rat ass I Div 1/2" 3/4" 1/2"	ed to 100°C;			
Option Code Cast aluminum, sc ceramic terminal b D; Class II, Groups HD70* HD71* Stainless steel (sar HD74* HD75* Epoxy-coated (sar	Process Connective rew cover with cha plock; FM/CSA app E, F, G; internal ground 1/2" 1/2" ne specs as HD70/ 1/2" 1/2" ne specs as HD70/	on in; o-ring ga roved for Cl ound screw 771)	Conduit isket rati ass I Div 1/2" 3/4" 1/2" 3/4"	ed to 100°C;			
Option Code Cast aluminum, sc ceramic terminal b D; Class II, Groups HD70* HD71* Stainless steel (sar HD74* HD75* Epoxy-coated (san HD80* HD81* Cast aluminum; A silicone rubber o-r	Process Connective rew cover with cha block; FM/CSA app E, F, G; internal ground 1/2" 1/2" ne specs as HD70/ 1/2" the specs as HD70/ 1/2"	on in; o-ring ga roved for Cl ound screw (71) 71) Ex d IIC; scre terminal bl	Conduit asket rat ass I Div 1/2" 3/4" 1/2" 3/4" 1/2" 3/4" ew cove ock; rate	ed to 100°C; 1, Groups B, C, 			
Option Code Cast aluminum, sc ceramic terminal b D; Class II, Groups HD70* HD71* Stainless steel (sar HD74* HD75* Epoxy-coated (san HD80* HD81* Cast aluminum; A silicone rubber o-r	Process Connective rew cover with charal cover with charal cover with charal plock; FM/CSA app E, F, G; internal group 1/2" ne specs as HD70/ 1/2" ne specs as HD70/ 1/2" 1/2" TEX approved for E ing gasket; ceramic	on in; o-ring ga roved for Cl ound screw (71) 71) Ex d IIC; scre terminal bl	Conduit asket rat ass I Div 1/2" 3/4" 1/2" 3/4" 1/2" 3/4" ew cove ock; rate	ed to 100°C; 1, Groups B, C, 			
Option Code Cast aluminum, sc ceramic terminal b D; Class II, Groups HD70* HD71* Stainless steel (sar HD74* HD75* Epoxy-coated (sar HD80* HD81* Cast aluminum; A silicone rubber o-r IP66 to IP68; inter	Process Connectiver rew cover with charalock; FM/CSA app E, F, G; internal ground 1/2" 1/2" ne specs as HD70/ 1/2" 1/2" 1/2" TZY approved for E ing gasket; ceramic remained and external g	on in; o-ring ga roved for Cl ound screw (71) 71) Ex d IIC; scre terminal bl	Conduit isket rat ass I Div 1/2" 3/4" 1/2" 3/4" 1/2" 3/4" ew cove ock; ratu s	ed to 100°C; 1, Groups B, C, 			
Option Code Cast aluminum, sc ceramic terminal b D; Class II, Groups HD70* HD71* Stainless steel (sar HD74* HD75* Epoxy-coated (san HD80* HD81* Cast aluminum; A silicone rubber o-r IP66 to IP68; inter HD72* HD73* Cast aluminum (Fo	Process Connective rew cover with chalock; FM/CSA app E, F, G; internal ground 1/2" 1/2" ne specs as HD70/ 1/2" 1/2" te specs as HD70/ 1/2" TEX approved for E ing gasket; ceramic mal and external g 1/2"	on in; o-ring ga roved for Cl ound screw (71) 71) Ex d IIC; scre terminal bl round screw crew cover; j	Conduit asket rat ass I Div 1/2" 3/4" 1/2" 3/4" 1/2" 3/4" ew cove ock; rato 's 1/2" 3/4" plastic t	ed to 100°C; /. 1, Groups B, C, r with chain; ed for NEMA 4X, erminal block;			
Option Code Cast aluminum, sc ceramic terminal b D; Class II, Groups HD70* HD71* Stainless steel (sar HD74* HD75* Epoxy-coated (sar HD80* HD81* Cast aluminum; A silicone rubber o-r IP66 to IP68; inter HD72* HD73* Cast aluminum (Fo UL/CSA approved	Process Connective rew cover with chalock; FM/CSA app E, F, G; internal group 1/2" 1/2" ne specs as HD70/ 1/2" 1/2" te specs as HD70/ 1/2" TEX approved for E ing gasket; ceramic rnal and external g 1/2" 1/2" cornerly Style 60); so	on in; o-ring ga roved for Cl ound screw (71) 71) Ex d IIC; scre terminal bl round screw crew cover; j	Conduit asket rat ass I Div 1/2" 3/4" 1/2" 3/4" 1/2" 3/4" ew cove ock; rato 's 1/2" 3/4" plastic t	ed to 100°C; /. 1, Groups B, C, r with chain; ed for NEMA 4X, erminal block;			
Option Code Cast aluminum, sc ceramic terminal b D; Class II, Groups HD70* HD71* Stainless steel (sar HD75* Epoxy-coated (sar HD80* HD81* Cast aluminum; A' silicone rubber o-r IP66 to IP68; inter HD72* HD73* Cast aluminum (Fe UL/CSA approved and G.	Process Connectiver rew cover with charal cover with cover with charal cover with cover with charal cover with cover with cover with cover with cover cover with cover	on in; o-ring ga roved for Cl ound screw (71) 71) Ex d IIC; scre terminal bl round screw crew cover; j	Conduit sket rat ass I Div 1/2" 3/4" 1/2" 3/4" 1/2" 3/4" ew cove ock; rata s 1/2" 3/4" ew cove ock; rata s 1/2" 3/4"	ed to 100°C; /. 1, Groups B, C, r with chain; ed for NEMA 4X, erminal block;			

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