



Thermocouple

FM Certified Explosion-Proof Assembly

United Electric Controls is
ISO 9001:2015 certified



AST-XPTHERM 01

Table of Contents

Style 83	page 3
Style 84	page 5
Certifications	page 7

EXPLOSION-PROOF ASSEMBLY WITH SPRING-LOADED HEX FITTING, CONNECTION HARDWARE AND HEAD

How to build a part number:

Select the requirements for the categories listed below and fill in the corresponding boxes with your selection. Consult UE-AST for custom solutions.

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

MI - Mineral insulated thermocouple

ASSEMBLY STYLE

83 - Sheath with cast aluminum head; 1/2" NPT spring-loaded hex fitting with connection hardware; FM certified explosion proof rated assembly; cast aluminum head with screw cover and chain and gasketed O-ring; ceramic terminal block; 1/2" NPT conduit and process connections. Replaces Thermocouple/Style 77.

CONNECTION

N - 1/2" NPT spring loaded st/st hex fitting (1.75" Conn. Lgth)

NU - 1/2" NPT spring loaded st/st hex fitting with st/st union (3.25" Conn. Lgth)

NUNS - 1/2" NPT spring loaded st/st hex fitting with st/st union and st/st nipple (see Table 1 for available connection lengths)

CONNECTION LENGTH (NUNS only)

See Table 1 for standard available lengths

CODE	INCHES
004	4.00
005	5.00
006	6.00
008	8.00
010	10.00
012	12.00
014	14.00

Table 1

SHEATH DIAMETER

6 - 0.1875"

7 - 0.250"

SHEATH MATERIAL

3 - 316 stainless steel

5 - Inconel® 600

CALIBRATION - Standard limits

J - Single J

K - Single K

T - Single T

E - Single E

JJ - Dual J

KK - Dual K

TT - Dual T

EE - Dual E

Special limits are available - consult UE-AST

HOT JUNCTION

G - Grounded junction

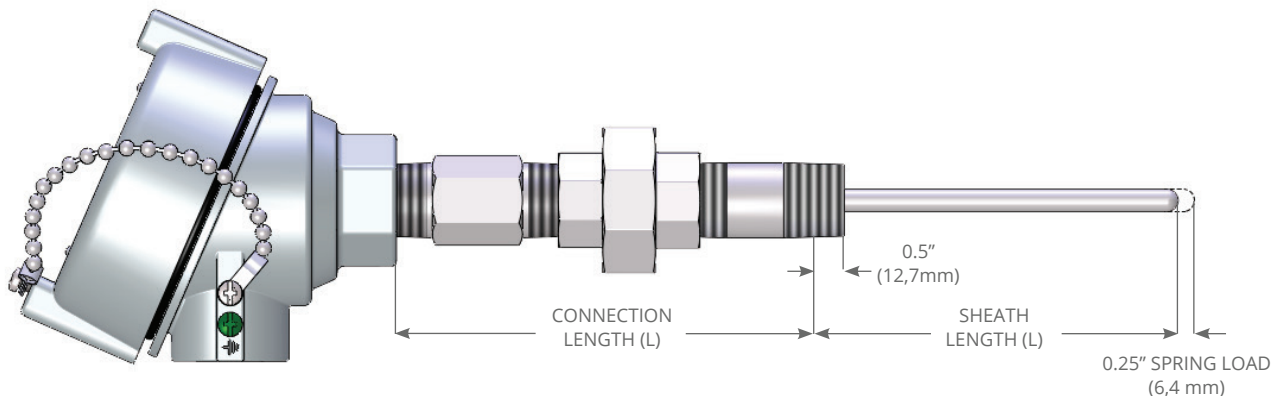
U - Ungrounded junction

SHEATH LENGTH: (**Note:** lengths over L84 will be shipped coiled unless otherwise specified at time of order)

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

OPTIONS - see page 4

Note: See page 7 for agency approvals.



STYLE 83

AVAILABLE OPTIONS and MODIFICATIONS

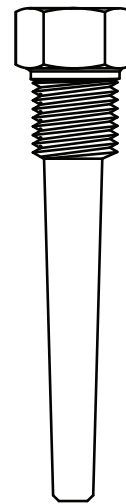
ASSEMBLY OPTIONS	
OPTION CODES	DESCRIPTION
TAG1	Stainless steel tag and wire
CAL1	NIST traceable calibration, specify point(s)
CRT1	Certificate of conformance

EXPLOSION-PROOF TERMINAL HEAD OPTIONS		
OPTION CODE	PROCESS CONNECTION	CONDUIT CONNECTION
HD82	1/2"	3/4"

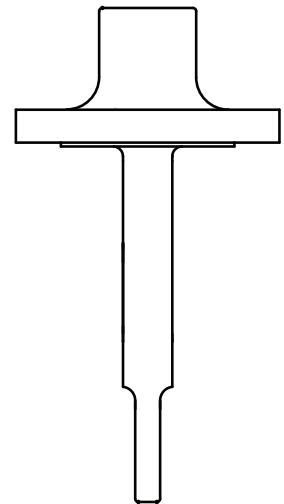
THERMOWELLS & PROTECTION TUBES

For a complete offering of metal, ceramic and composite material thermowells and protection tubes, please see the following datasheets:

- AST-THERMOWELLS
- AST-PROTECTB



**H260
THERMOWELL**



**F260
THERMOWELL**

NOTE: Many non-standard options, including additional sheath diameters and materials, may also be available – consult UE-AST for specific requirements.

EXPLOSION-PROOF ASSEMBLY WITH WELDED HEX FITTING AND HEAD

How to build a part number:

Select the requirements for the categories listed below and fill in the corresponding boxes with your selection. Consult UE-AST for custom solutions.

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

SENSOR TYPE

MI - Mineral insulated thermocouple

ASSEMBLY STYLE

84 - Sheath with cast aluminum head and 1/2" NPT welded stainless steel process connection; FM certified explosion proof rated assembly (See page 7 for agency approvals); cast aluminum head with screw cover and chain and gasketed O-ring; ceramic terminal block; 1/2"NPT conduit and process connection. Replaces Thermocouple/Style 78.

SHEATH DIAMETER

6 - 0.1875"

7 - 0.250"

SHEATH MATERIAL

3 - 316 stainless steel

5 - Inconel® 600

CALIBRATION — Standard limits

J - Single J

K - Single K

T - Single T

E - Single E

JJ - Dual J

KK - Dual K

TT - Dual T

EE - Dual E

Special limits are available - consult UE-AST

HOT JUNCTION

G - Grounded junction

U - Ungrounded junction

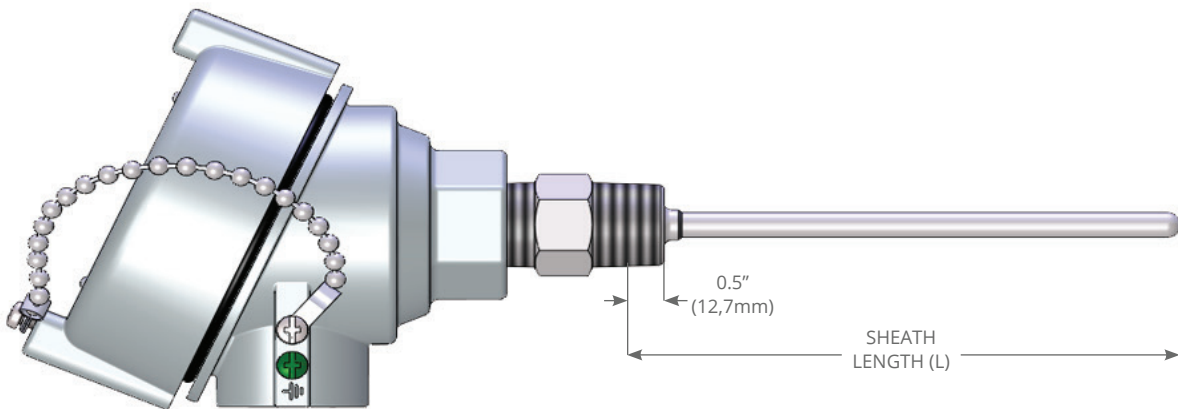
SHEATH LENGTH

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

(Note: lengths over L84 will be shipped coiled unless otherwise specified at time of order)

OPTIONS - see page 6

Note: See page 7 for agency approvals



STYLE 84

AVAILABLE OPTIONS and MODIFICATIONS




ASSEMBLY OPTIONS	
OPTION CODE	DESCRIPTION
TAG1	Stainless steel tag and wire
CAL1	NIST traceable calibration, specify point(s)
CRT1	Certificate of conformance

EXPLOSION-PROOF TERMINAL HEAD OPTIONS		
OPTION CODE	PROCESS CONNECTION	CONDUIT CONNECTION
HD82	1/2"	3/4"

NOTE: Many non-standard options, including additional sheath diameters and materials, may also be available – consult UE-AST for specific requirements.



Certifications

	Region	Agency	Classification
	North America	FM	Certificate #: FM24US0225X, FM24CA0059X Class I, Div 1, Groups B, C, D Class II, Div 1, Groups E, F, G Class III $-40\text{ }^{\circ}\text{C} \leq T_a \leq +85\text{ }^{\circ}\text{C}$ Type 4X, IP66/68 1m, 1hr
	Europe	ATEX	Certificate #: FM24ATEX0030X II 2 G Ex db IIC T5 Gb $-20\text{ }^{\circ}\text{C} \leq T_a \leq +85\text{ }^{\circ}\text{C}$ II 2 D Ex tb IIIC T90C Db $-40\text{ }^{\circ}\text{C} \leq T_a \leq +85\text{ }^{\circ}\text{C}$ IP66/68 1m, 1hr
	International	IECEx	Certificate #: IECEx FMG 24.0032X Ex db IIC T5 Gb $-20\text{ }^{\circ}\text{C} \leq T_a \leq +85\text{ }^{\circ}\text{C}$ Ex tb IIIC T90C Db $-40\text{ }^{\circ}\text{C} \leq T_a \leq +85\text{ }^{\circ}\text{C}$ IP66/68 1m, 1hr

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TERMS AND CONDITIONS OF SALE



UE specifications subject to change without notice.



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