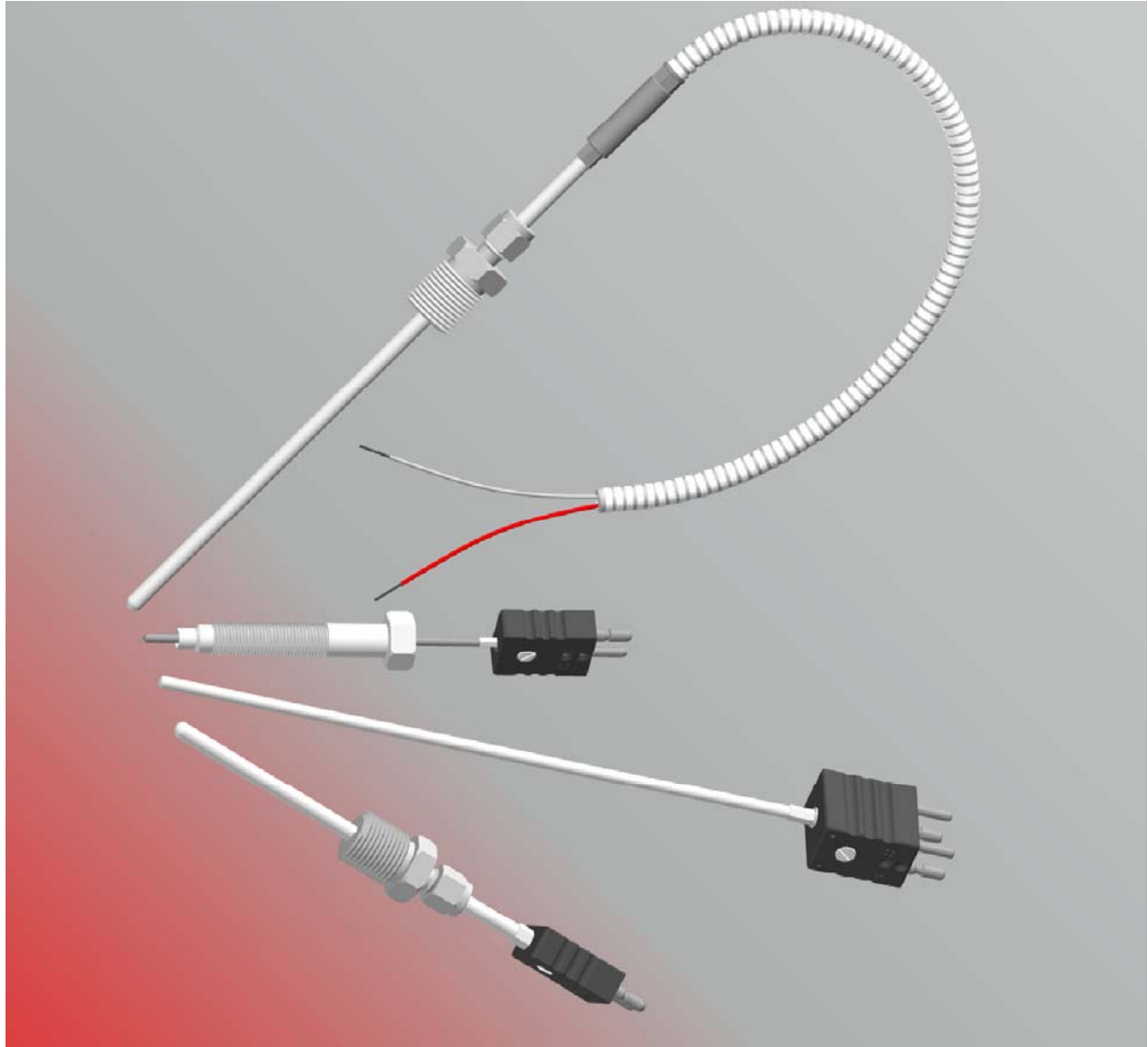




THERMO ELECTRIC

IMMERSION THERMOCOUPLES

Section IMTC



Immersion Thermocouples

Immersion thermocouples are used throughout all industries. They are generally inserted into or attached directly to the media to be measured. Instrument termination is available in a quick disconnect connector which is directly mounted to the end of the sheath or an epoxy filled transition securing flexible lead wires of various insulation depending on the conditions. Each type is available in a wide variety of configurations which may be fabricated from developed part numbers on the following pages or designed by Thermo Electric to conform to any given application. Thermocouples for your surface mounting requirements can be found in our SUTR section or where a more rugged style of connection head and well is required, refer to our industrial INTC section.

Thermo Electric Products offer the following advantages:

- Wide variety of construction to meet your need and budget
- Epoxy filled transitions strengthen the connection between probe and lead wire
- Hard packed MgO insulation provides premium service life for the given applications
- Calibration services available to ISA & NIST standards

IMMERSION THERMOCOUPLES



Quick disconnect connector secured directly onto the end of the sheath allows for easy assembling and disassembling using a mating connector and extension lead wire. Also available with bare ends used with site installed hardware.

Calibration: J, T, K, E, N Diameter: 1/25" through 3/8"

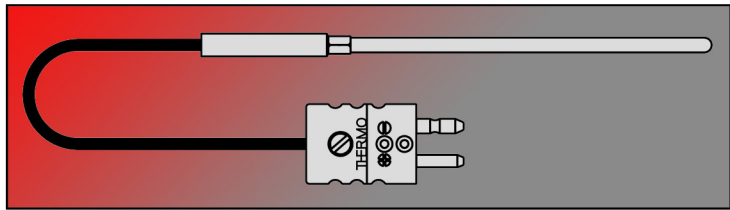
Measuring Junction: Grounded, Ungrounded, Exposed Loop

Sheath Material: 300 Series Stn. Stl., Inconel 600

Termination: Bare ends, Quick disconnect connectors

Single Immersion Thermocouples with Connector Termination
See Document TE-CO010109-IMTC-010

Duplex Immersion Thermocouples with Connector Termination
See Document TE-CO010109-IMTC-020



Terminated to flexible fiberglass insulated lead wire or fiberglass with a stainless steel over braid with an epoxy filled transition allows for a direct run from the process to the control panel. The fiberglass insulation is unaffected by heat zones of up to 950° F. Over braid provides additional abrasion protection.

Calibration: J, T, K, E, N Diameter: 1/25" through 3/8"

Measuring Junction: Grounded, Ungrounded, Exposed Loop

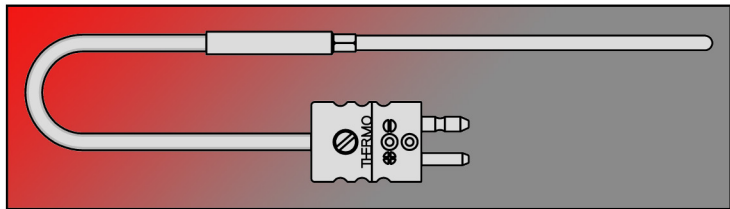
Sheath Material: 300 Series Stn. Stl., Inconel 600

Lead Wire: 20 gauge standard, fiberglass insulation or fiberglass with Stn. Stl. over braid

Termination: Bare ends, Quick disconnect connectors

Single Immersion Thermocouples with Fiberglass or Fiberglass with Stn. Stl. Over braid
See Document TE-CO010109-IMTC-030

Duplex Immersion Thermocouples with Fiberglass or Fiberglass with Stn. Stl. Over braid
See Document TE-CO010109-IMTC-040



Terminated to flexible PVC (220° F) or TEFLON (400° F) insulated lead wire, PVC insulation provides excellent resistance to moisture and petroleum products, TEFLON is unaffected by most corrosives, lubricants and outdoor weathering.

Calibration: J, T, K, E, N Diameter: 1/25" through 3/8"

Measuring Junction: Grounded, Ungrounded, Exposed Loop

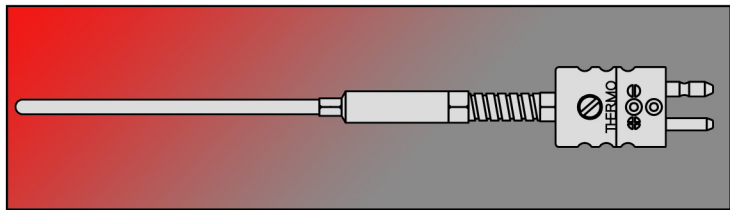
Sheath Material: 300 Series Stn. Stl., Inconel 600

Lead Wire: 20 gauge standard, PVC or TEFLON insulation and jacketed

Termination: Bare ends, Quick disconnect connectors

Single Immersion Thermocouples with PVC or TEFLON insulated lead wire
See Document TE-CO010109-IMTC-050

Duplex Immersion Thermocouples with PVC or TEFLON insulated lead wire
See Document TE-CO010109-IMTC-060



Lead wire is available in fiberglass or PVC with a flexible stainless armor tubing overall. Armor is hex crimped to the transition and crimp boss or bracketed to connectors to resists extreme physical abuse. On bare ends six inches of lead wire extends past the armor for junction box connection.

Calibration: J, T, K, E, N Diameter: 1/25" through 3/8"

Measuring Junction: Grounded, Ungrounded, Exposed Loop

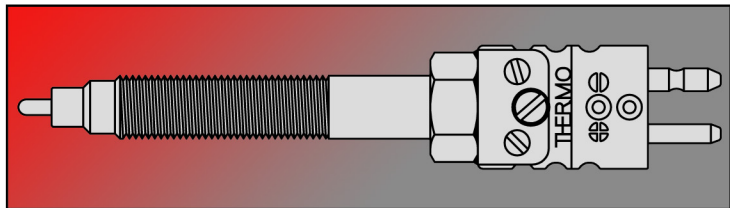
Sheath Material: 300 Series Stn. Stl., Inconel 600

Lead Wire: 20 gauge standard, fiberglass or PVC, flexible armor overall

Termination: Bare ends, Quick disconnect connectors

Single Immersion Thermocouples with PVC or TEFLON insulated lead wire
See Document TE-CO010109-IMTC-070

Duplex Immersion Thermocouples with PVC or TEFLON insulated lead wire
See Document TE-CO010109-IMTC-080



Plastic melt Bolt used in plastic extruders and injection molding machines. Connection allows insertion directly into the melt stream. The short immersion length prevents the tip from interfering with the process flow.

Calibration: J, T, K, E, N

Bolt Size: 1/2-20UNF, 3/8-24UNF(nozzle) Bolt Length: 3", 6", 9", 12"

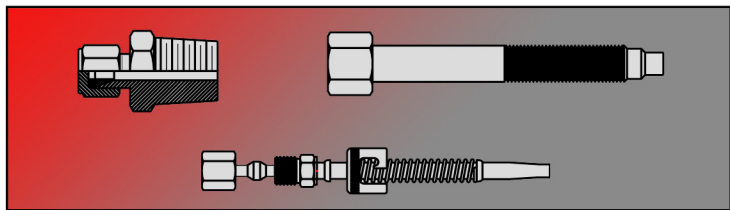
Termination: Bare ends, Bend able Extension, Rigid Mount Connectors, Armored Lead wire

Single Plastic Melt Bolt Thermocouples with Armored Lead Wire
See Document TE-CO010109-IMTC-090

Duplex Plastic Melt Bolt Thermocouples with Armored Lead Wire
See Document TE-CO010109-IMTC-100

Plastic Melt Bolt Thermocouples with Bend able Extension and Rigid Connectors
See Document TE-CO010109-IMTC-110

Plastic Melt Bolt Thermocouples Nozzle Type
See Document TE-CO010109-IMTC-120



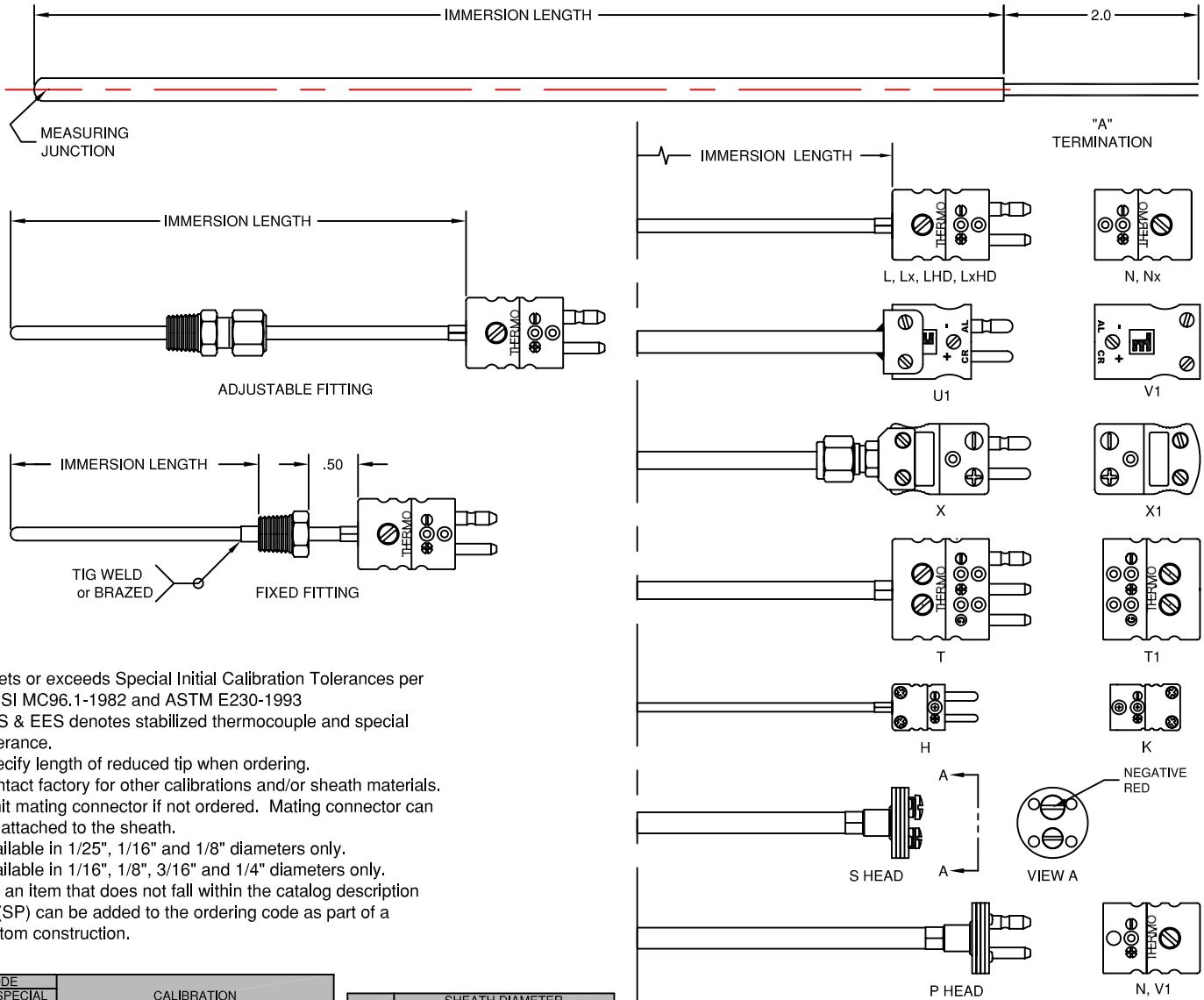
Complete supply of fitting accessories provides the means to mount any immersion thermocouple into a NPT threaded opening. Fittings can be adjusted once or readjusted using TEFLON or Lava ferrules. Adjustable Melt Bolt Thermocouple Adapter converts any 1/8" diameter immersion thermocouple into a plastic melt bolt. Adjustable spring loaded adapter converts 1/16" or 1/8" diameter immersion thermocouple into a surface type bayonet.

Bore Through Compression Fittings
See Document TE-CO010109-IMTC-130

Adjustable Bayonet Adapters, Plastic Melt Bolt Adapters, Waterproof Fittings, Strain Relief Bell Springs, BX Connectors
See Document TE-CO010109-IMTC-140



IMMERSION THERMOCOUPLES



Notes:

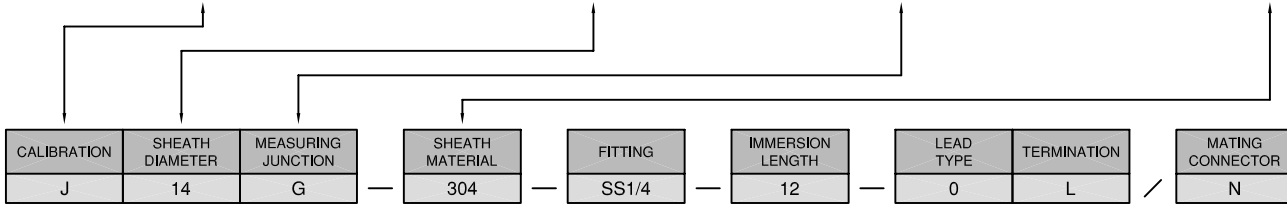
- (1) Meets or exceeds Special Initial Calibration Tolerances per ANSI MC96.1-1982 and ASTM E230-1993
- (2) KKS & EES denotes stabilized thermocouple and special tolerance.
- (3) Specify length of reduced tip when ordering.
- (4) Contact factory for other calibrations and/or sheath materials.
- (5) Omit mating connector if not ordered. Mating connector can be attached to the sheath.
- (6) Available in 1/25", 1/16" and 1/8" diameters only.
- (7) Available in 1/16", 1/8", 3/16" and 1/4" diameters only.
- (8) For an item that does not fall within the catalog description an (SP) can be added to the ordering code as part of a custom construction.

CODE	CALIBRATION
STD.	SPECIAL (NOTE 1)
J	JJ
K	KK
T	TT
E	EE
N	NN
	KKS
	EES

CODE	SHEATH DIAMETER		
	FRACTION	DECIMAL	METRIC
125	1/25"	.040	1.1mm
116	1/16"	.063	1.6mm
18	1/8"	.125	3.2mm
316	3/16"	.187	4.8mm
14	1/4"	.250	6.4mm
516	5/16"	.313	8.0mm
38	3/8"	.375	9.5mm

CODE	MEASURING JUNCTION
G	GROUNDING
U	UNGROUNDING
RG	REDUCED GRD. (NOTE 3)
RU	REDUCED UNGRD. (NOTE 3)
E	EXPOSED LOOP

CODE	SHEATH MATERIAL	STD. CALIBRATIONS (NOTE 4)
304	304 STN. STL.	J, K, T
316	316 STN. STL.	J, K, T, E, N
310	310 STN. STL.	J, K, E
1600	INCONEL 600	K, N, KKS(NOTE 2), EES(NOTE 2)



CODE	FITTING	CODE	THREAD SIZE
BR	ADJUSTABLE BRASS, BRASS INSERT	1/8	1/8"NPT
BRT	READJUSTABLE BRASS, TEFLON INSERT	1/4	1/4"NPT
SS	ADJUSTABLE STN. STL., STN. STL. INSERT	1/2	1/2"NPT
SST	READJUSTABLE STN. STL., TEFLON INSERT		
SSL	READJUSTABLE STN. STL., LAVA INSERT		
FX	FIXED STN. STL., ATTACHED TO SHEATH		
0	FITTING NOT REQUIRED		

CODE	IMMERSION LENGTH (IN INCHES)
------	------------------------------

CODE	TERMINATION	MATING CONN. (NOTE 5)	TEMPERATURE LIMIT
A	BARE ENDS	N	390°F(200°C)
L	STANDARD SIZE PLUG	N	390°F(200°C)
LHD	STANDARD SIZE SOLID PIN PLUG	Nx	660°F(320°C)
LxHD	EXTENDED LIMITS PLUG	Nx	660°F(320°C)
U1	IMPACT RESISTANT PHENOLIC PLUG	V1	300°F(150°C)
X	ULTRA-TEMP PLUG	X1	1000°F(538°C)
T	THREE PIN PLUG	T1	390°F(200°C)
H	MINIATURE PLUG (NOTE 6)	K	390°F(200°C)
S	COOLANT HEAD (NOTE 7)		WIRE ONLY
P	COOLANT PLUG (NOTE 7)	N, V1	350°F(177°C)



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SECTION IMTC

IMMERSION THERMOCOUPLES

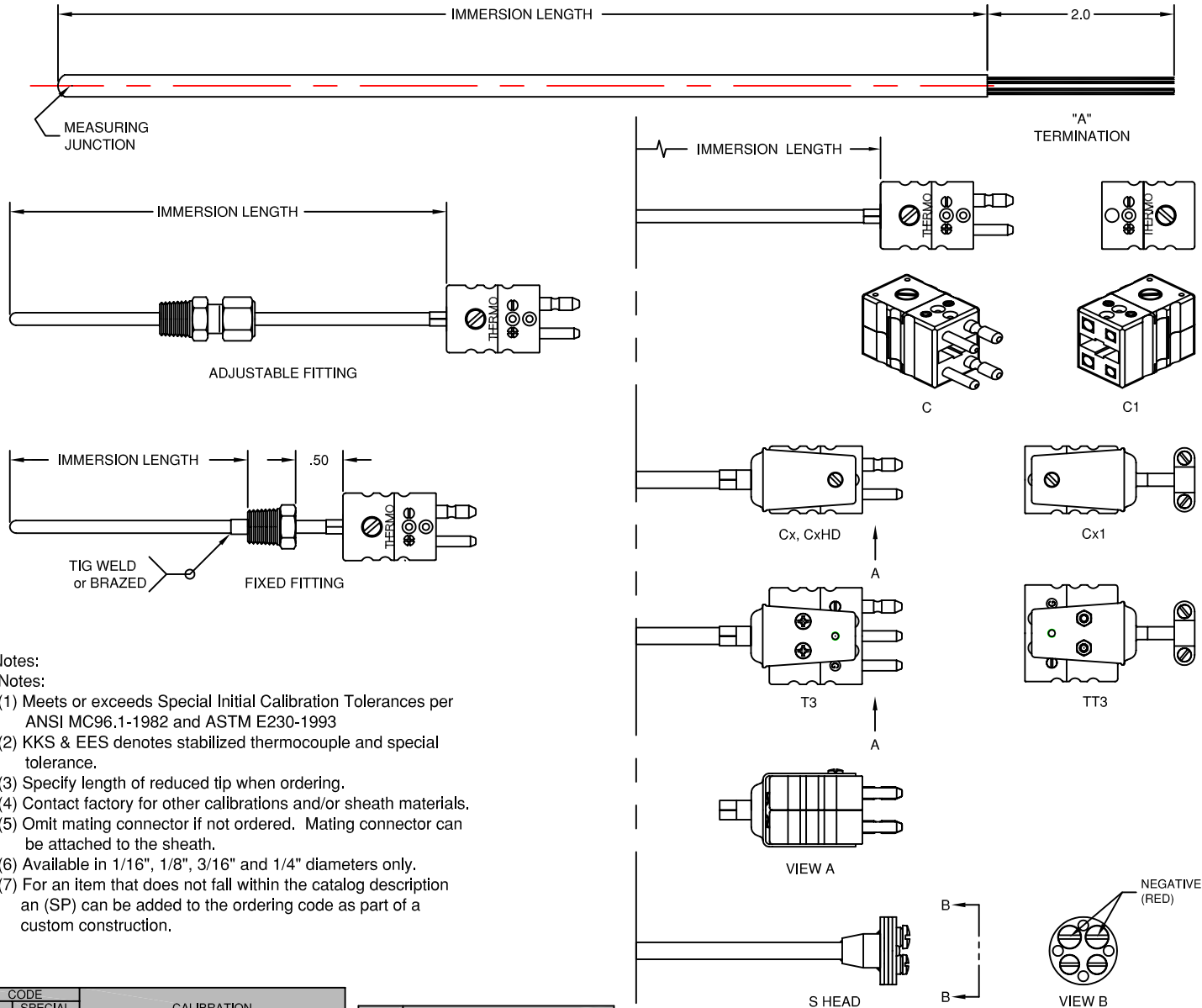
with CONNECTORS

SINGLE CONSTRUCTION

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Doc. No.: TE-CO010109-IMTC-010

IMMERSION THERMOCOUPLES



Notes:

- (1) Meets or exceeds Special Initial Calibration Tolerances per ANSI MC96.1-1982 and ASTM E230-1993
- (2) KKS & EES denotes stabilized thermocouple and special tolerance.
- (3) Specify length of reduced tip when ordering.
- (4) Contact factory for other calibrations and/or sheath materials.
- (5) Omit mating connector if not ordered. Mating connector can be attached to the sheath.
- (6) Available in 1/16", 1/8", 3/16" and 1/4" diameters only.
- (7) For an item that does not fall within the catalog description an (SP) can be added to the ordering code as part of a custom construction.

CODE	CALIBRATION
STD.	SPECIAL (NOTE 1)
J	JJ
K	KK
T	TT
E	EE
N	NN
	KKS
	EES

CODE	SHEATH DIAMETER		
	FRACTION	DECIMAL	METRIC
125	1/25"	.040	1.1mm
116	1/16"	.063	1.6mm
18	1/8"	.125	3.2mm
316	3/16"	.187	4.8mm
14	1/4"	.250	6.4mm
516	5/16"	.313	8.0mm
38	3/8"	.375	9.5mm

CODE	MEASURING JUNCTION
DG	GROUND
DU	UNGROUND
DRG	REDUCED GRD. (NOTE 3)
DRU	REDUCED UNGRD. (NOTE 3)
DE	EXPOSED LOOP

CODE	SHEATH MATERIAL	STD. CALIBRATIONS (NOTE 4)
304	304 STN. STL.	J, K, T
316	316 STN. STL.	J, K, T, E, N
310	310 STN. STL.	J, K, E
1600	INCONEL 600	K, N, KKS(NOTE 2), EES(NOTE 2)

CALIBRATION	SHEATH DIAMETER	MEASURING JUNCTION	SHEATH MATERIAL	FITTING	IMMERSION LENGTH	LEAD TYPE	TERMINATION	MATING CONNECTOR
J	316	DG	304	0	72	0	C	C1

CODE	FITTING	CODE	THREAD SIZE
BR	ADJUSTABLE BRASS, BRASS INSERT	1/8	1/8"NPT
BRT	READJUSTABLE BRASS, TEFLON INSERT	1/4	1/4"NPT
SS	ADJUSTABLE STN. STL., STN. STL. INSERT	1/2	1/2"NPT
SST	READJUSTABLE STN. STL., TEFLON INSERT		
SSL	READJUSTABLE STN. STL., LAVA INSERT		
FX	FIXED STN. STL., ATTACHED TO SHEATH		
0	FITTING NOT REQUIRED		

CODE	IMMERSION LENGTH (IN INCHES)
------	------------------------------

CODE	TERMINATION	MATING CONN. (NOTE 5)	TEMPERATURE LIMIT
A	BARE ENDS		
C	STANDARD SIZE DUPLEX PLUG	C1	390°F(200°C)
Cx	EXTENDED LIMITS DUPLEX PLUG	Cx1	660°F(320°C)
CxHD	EXT. LIMITS SOLID PIN DUPLEX PLUG	Cx1	660°F(320°C)
T3	THREE PIN DUPLEX PLUG	TT3	390°F(200°C)
S	COOLANT HEAD (NOTE 6)		WIRE ONLY



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SECTION IMTC

IMMERSION THERMOCOUPLES

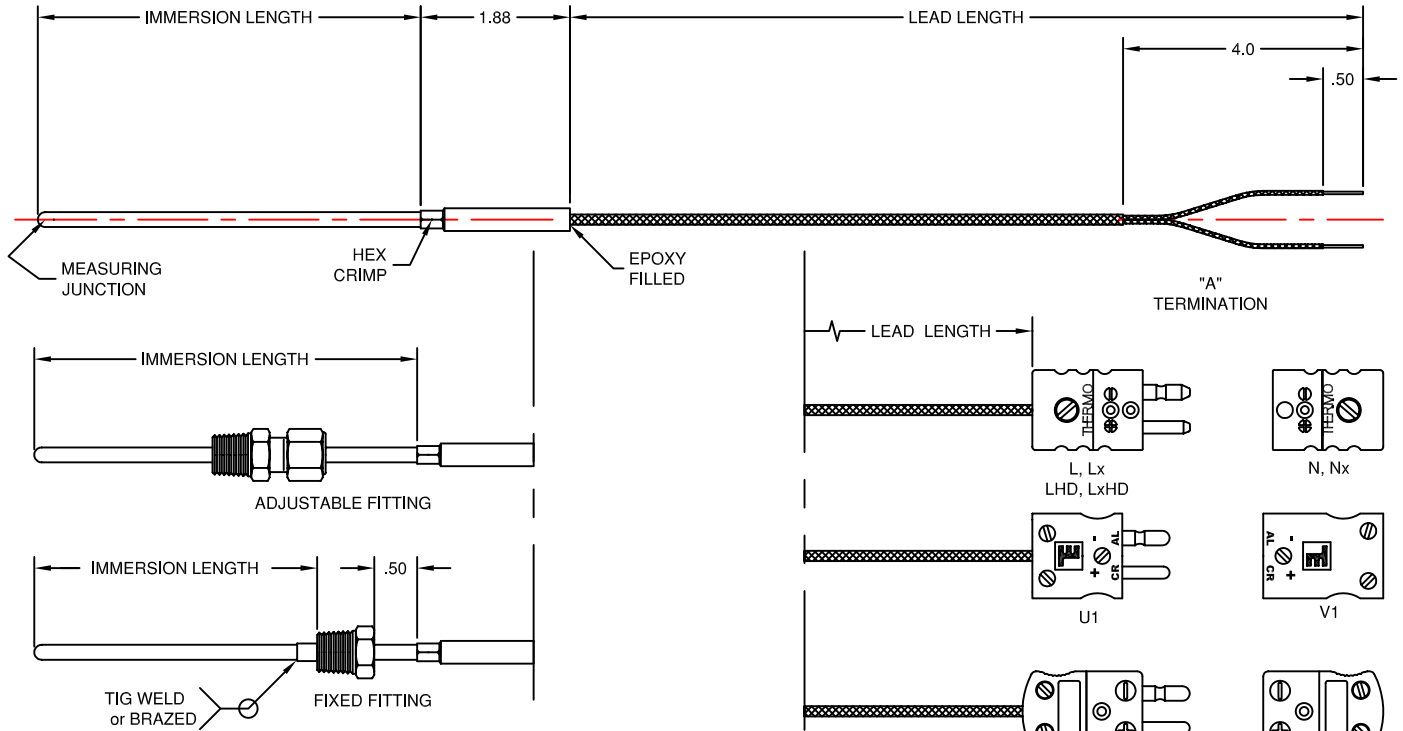
with CONNECTORS

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Doc. No.: TE-CO010109-IMTC-020

IMMERSION THERMOCOUPLES



Notes:

- (1) Meets or exceeds Special Initial Calibration Tolerances per ANSI MC96.1-1982 and ASTM E230-1993
- (2) KKS & EES denotes stabilized thermocouple and special tolerance.
- (3) Specify length of reduced tip when ordering.
- (4) Contact factory for other calibrations and/or sheath materials.
- (5) Standard 20 gauge stranded conductors.
- (6) Omit mating connector if not ordered. Mating connector can be attached to the leads.
- (7) Available with spade lugs, replace "A" with "LG".
- (8) For an item that does not fall within the catalog description an (SP) can be added to the ordering code as part of a custom construction.

CODE	CALIBRATION
STD.	SPECIAL (NOTE 1)
J	JJ
K	KK
T	TT
E	EE
N	NN
	KKS
	EES

CODE	SHEATH DIAMETER		
	FRACTION	DECIMAL	METRIC
125	1/25"	.040	1.1mm
116	1/16"	.063	1.6mm
18	1/8"	.125	3.2mm
316	3/16"	.187	4.8mm
14	1/4"	.250	6.4mm
516	5/16"	.313	8.0mm
38	3/8"	.375	9.5mm

CODE	MEASURING JUNCTION
G	GROUNDING
U	UNGROUNDING
RG	REDUCED GRD. (NOTE 3)
RU	REDUCED UNGRD. (NOTE 3)
E	EXPOSED LOOP

CODE	SHEATH MATERIAL	STD. CALIBRATIONS (NOTE 4)
304	304 STN. STL.	J, K, T
316	316 STN. STL.	J, K, T, E, N
310	310 STN. STL.	J, K, E
1600	INCONEL 600	K, N, KKS(NOTE 2), EES(NOTE 2)

CALIBRATION	SHEATH DIAMETER	MEASURING JUNCTION	SHEATH MATERIAL	FITTING	IMMERSSION LENGTH	LEAD LENGTH	LEAD TYPE	TERMINATION	MATING CONNECTOR
KK	316	U	304	0	6	12	3	U1	V1

CODE	FITTING	CODE	THREAD SIZE
BR	ADJUSTABLE BRASS, BRASS INSERT	1/8	1/8"NPT
BRT	ADJUSTABLE BRASS, TEFLON INSERT	1/4	1/4"NPT
SS	ADJUSTABLE STN. STL., STN. STL. INSERT	1/2	1/2"NPT
SST	ADJUSTABLE STN. STL., TEFLON INSERT		
SSL	ADJUSTABLE STN. STL., LAVA INSERT		
FX	FIXED STN. STL., ATTACHED TO SHEATH		
0	FITTING NOT REQUIRED		

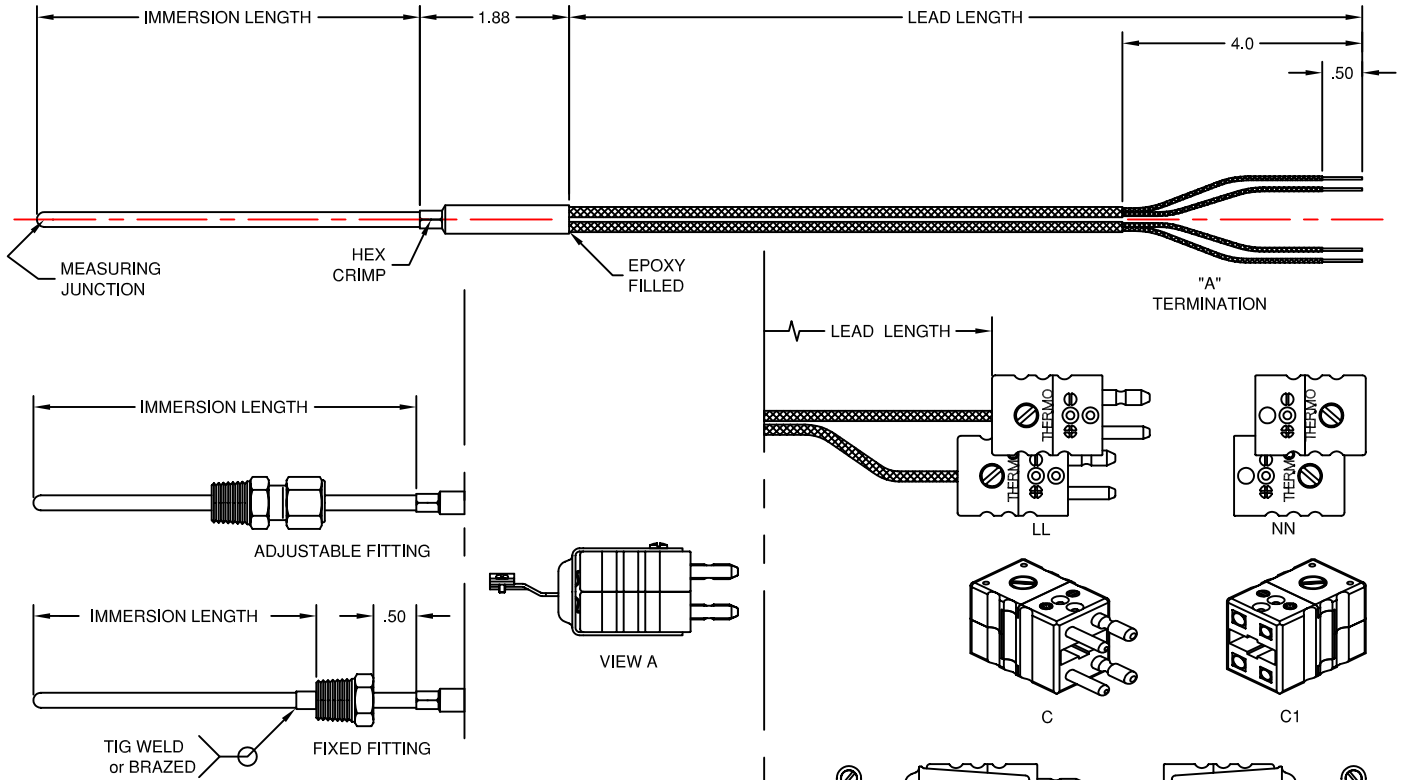
CODE	IMMERSSION LENGTH (IN INCHES)
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CODE	LEAD LENGTH (IN INCHES)
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CODE	LEAD TYPE (NOTE 5)
1	FIBERGLASS INSULATION & JACKETED
3	CODE 1 WITH STN. STL. OVERBRAID

CODE	TERMINATION	MATING CONN. (NOTE 6)
A	BARE ENDS (NOTE 7)	CODE
L	STANDARD SIZE PLUG	N
LHD	STANDARD SIZE SOLID PIN PLUG	N
Lx	EXTENDED LIMITS PLUG	Nx
LxHD	EXTENDED LIMITS SOLID PIN PLUG	Nx
U1	IMPACT RESISTANT PHENOLIC PLUG	V1
X	ULTRA-TEMP PLUG	X1
T	THREE PIN PLUG	T1
H	MINIATURE PLUG	K

IMMERSION THERMOCOUPLES



Notes:

- (1) Meets or exceeds Special Initial Calibration Tolerances per ANSI MC96.1-1982 and ASTM E230-1993
- (2) KKS & EES denotes stabilized thermocouple and special tolerance.
- (3) Specify length of reduced tip when ordering.
- (4) Contact factory for other calibrations and/or sheath materials.
- (5) Standard 20 gauge stranded conductors.
- (6) Omit mating connector if not ordered. Mating connector can be attached to the leads.
- (7) Available with spade lugs, replace "A" with "LG".
- (8) For an item that does not fall within the catalog description an (SP) can be added to the ordering code as part of a custom construction.

CODE	SPECIAL (NOTE 1)	CALIBRATION
J	JJ	IRON(+) vs CONSTANTAN(-)
K	KK	CHROMEL(+) vs ALUMEL(+)
T	TT	COPPER(+) vs CONSTANTAN(-)
E	EE	CHROMEL(+) vs CONSTANTAN(-)
N	NN	NICROSIL(+) vs NISIL(-)
KKS		CHROMEL(+) vs ALUMEL(+)(NOTE 2)
EES		CHROMEL(+) vs CONSTANTAN(-)(NOTE 2)

CODE	SHEATH DIAMETER		
	FRACTION	DECIMAL	METRIC
125	1/25"	.040	1.1mm
116	1/16"	.063	1.6mm
18	1/8"	.125	3.2mm
316	3/16"	.187	4.8mm
14	1/4"	.250	6.4mm
516	5/16"	.313	8.0mm
38	3/8"	.375	9.5mm

CODE	MEASURING JUNCTION
DG	GROUNDING
DU	UNGROUNDING
DRG	REDUCED GRD. (NOTE 3)
DRU	REDUCED UNGRD. (NOTE 3)
DE	EXPOSED LOOP

CODE	SHEATH MATERIAL	
	MATERIAL	STD. CALIBRATIONS (NOTE 4)
304	304 STN. STL.	J, K, T
316	316 STN. STL.	J, K, T, E, N
310	310 STN. STL.	J, K, E
1600	INCONEL 600	K, N, KKS(NOTE 2), EES(NOTE 2)

CALIBRATION	SHEATH DIAMETER	MEASURING JUNCTION	SHEATH MATERIAL	FITTING	IMMERSION LENGTH	LEAD LENGTH	LEAD TYPE	TERMINATION	MATING CONNECTOR
KK	14	DG	1600	FX1/4	6	36	3	Cx	Cx1

CODE	FITTING	CODE	THREAD SIZE
BR	ADJUSTABLE BRASS, BRASS INSERT	1/8	1/8"NPT
BRT	READJUSTABLE BRASS, TEFLON INSERT	1/4	1/4"NPT
SS	ADJUSTABLE STN. STL., STN. STL. INSERT	1/2	1/2"NPT
SST	READJUSTABLE STN. STL., TEFLON INSERT		
SSL	READJUSTABLE STN. STL., LAVA INSERT		
FX	FIXED STN. STL., ATTACHED TO SHEATH		
0	FITTING NOT REQUIRED		

CODE	IMMERSION LENGTH (IN INCHES)
------	------------------------------

CODE	LEAD LENGTH (IN INCHES)
------	-------------------------

CODE	LEAD TYPE (NOTE 5)
1	FIBERGLASS INSULATION & JACKETED
3	CODE 1 WITH STN. STL. OVERBRAID

CODE	TERMINATION	MATING CONN. (NOTE 6)	TEMPERATURE LIMIT
A	BARE ENDS (NOTE 7)	C1	390°F(200°C)
C	STANDARD SIZE DUPLEX PLUG	Cx1	660°F(320°C)
Cx	EXTENDED LIMITS DUPLEX PLUG	Cx1	660°F(320°C)
CxHD	EXT. LIMITS SOLID PIN DUPLEX PLUG	TT3	390°F(200°C)
T3	THREE PIN DUPLEX PLUG	NN	390°F(200°C)
LL	TWO STANDARD SIZE 2-PIN PLUGS		



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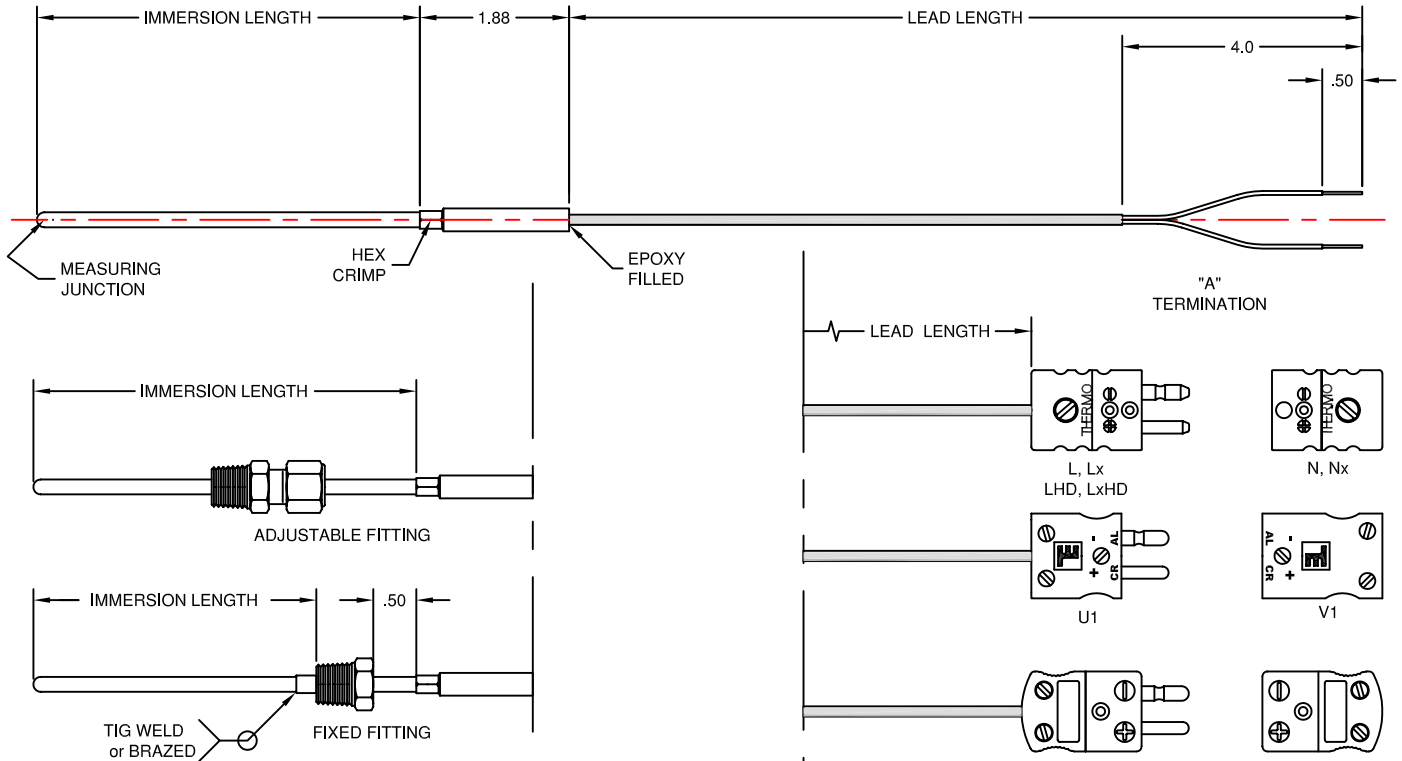
SECTION IMTC

IMMERSION THERMOCOUPLES
with FIBERGLASS & FIBLERGLASS/STN. STL. BRAID
LEAD WIRE, DUPLEX CONSTRUCTION

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IMMERSION THERMOCOUPLES



Notes:

- (1) Meets or exceeds Special Initial Calibration Tolerances per ANSI MC96.1-1982 and ASTM E230-1993
- (2) KKS & EES denotes stabilized thermocouple and special tolerance.
- (3) Specify length of reduced tip when ordering.
- (4) Contact factory for other calibrations and/or sheath materials.
- (5) Standard 20 gauge stranded conductors.
- (6) Omit mating connector if not ordered. Mating connector can be attached to the leads.
- (7) Available with spade lugs, replace "A" with "LG".
- (8) For an item that does not fall within the catalog description an (SP) can be added to the ordering code as part of a custom construction.

CODE	CALIBRATION
STD.	SPECIAL (NOTE 1)
J	JJ
K	KK
T	TT
E	EE
N	NN
	KKS
	EES

CODE	SHEATH DIAMETER		
	FRACTION	DECIMAL	METRIC
125	1/25"	.040	1.1mm
116	1/16"	.063	1.6mm
18	1/8"	.125	3.2mm
316	3/16"	.187	4.8mm
14	1/4"	.250	6.4mm
516	5/16"	.313	8.0mm
38	3/8"	.375	9.5mm

CODE	MEASURING JUNCTION
G	GROUNDING
U	UNGROUNDING
RG	REDUCED GRD. (NOTE 3)
RU	REDUCED UNGRD. (NOTE 3)
E	EXPOSED LOOP

CODE	SHEATH MATERIAL	STD. CALIBRATIONS (NOTE 4)
304	304 STN. STL.	J, K, T
316	316 STN. STL.	J, K, T, E, N
310	310 STN. STL.	J, K, E
1600	INCONEL 600	K, N, KKS(NOTE 2), EES(NOTE 2)

CALIBRATION	SHEATH DIAMETER	MEASURING JUNCTION	SHEATH MATERIAL	FITTING	IMMERSION LENGTH	LEAD LENGTH	LEAD TYPE	TERMINATION	MATING CONNECTOR
E	316	G	310	FX1/4	36	48	5	LxHD	N

CODE	FITTING	CODE	THREAD SIZE
BR	ADJUSTABLE BRASS, BRASS INSERT	1/8	1/8"NPT
BRT	ADJUSTABLE BRASS, TEFLON INSERT	1/4	1/4"NPT
SS	ADJUSTABLE STN. STL., STN. STL. INSERT	1/2	1/2"NPT
SST	ADJUSTABLE STN. STL., TEFLON INSERT		
SSL	ADJUSTABLE STN. STL., LAVA INSERT		
FX	FIXED STN. STL., ATTACHED TO SHEATH		
0	FITTING NOT REQUIRED		

CODE	IMMERSION LENGTH (IN INCHES)
------	------------------------------

CODE	LEAD LENGTH (IN INCHES)
------	-------------------------

CODE	LEAD TYPE (NOTE 5)
4	PVC INSULATION & JACKETED
5	TEFLON(FEP) INSULATION & JACKETED

CODE	TERMINATION	MATING CONN. (NOTE 6)	TEMPERATURE LIMIT
A	BARE ENDS (NOTE 7)	N	390°F(200°C)
L	STANDARD SIZE PLUG	N	390°F(200°C)
LHD	STANDARD SIZE SOLID PIN PLUG	N	390°F(200°C)
Lx	EXTENDED LIMITS PLUG	Nx	660°F(320°C)
LxHD	EXTENDED LIMITS SOLID PIN PLUG	Nx	660°F(320°C)
U1	IMPACT RESISTANT PHENOLIC PLUG	V1	300°F(150°C)
X	ULTRA-TEMP PLUG	X1	1000°F(538°C)
T	THREE PIN PLUG	T1	390°F(200°C)
H	MINIATURE PLUG	K	390°F(200°C)



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SECTION IMTC

IMMERSION THERMOCOUPLES

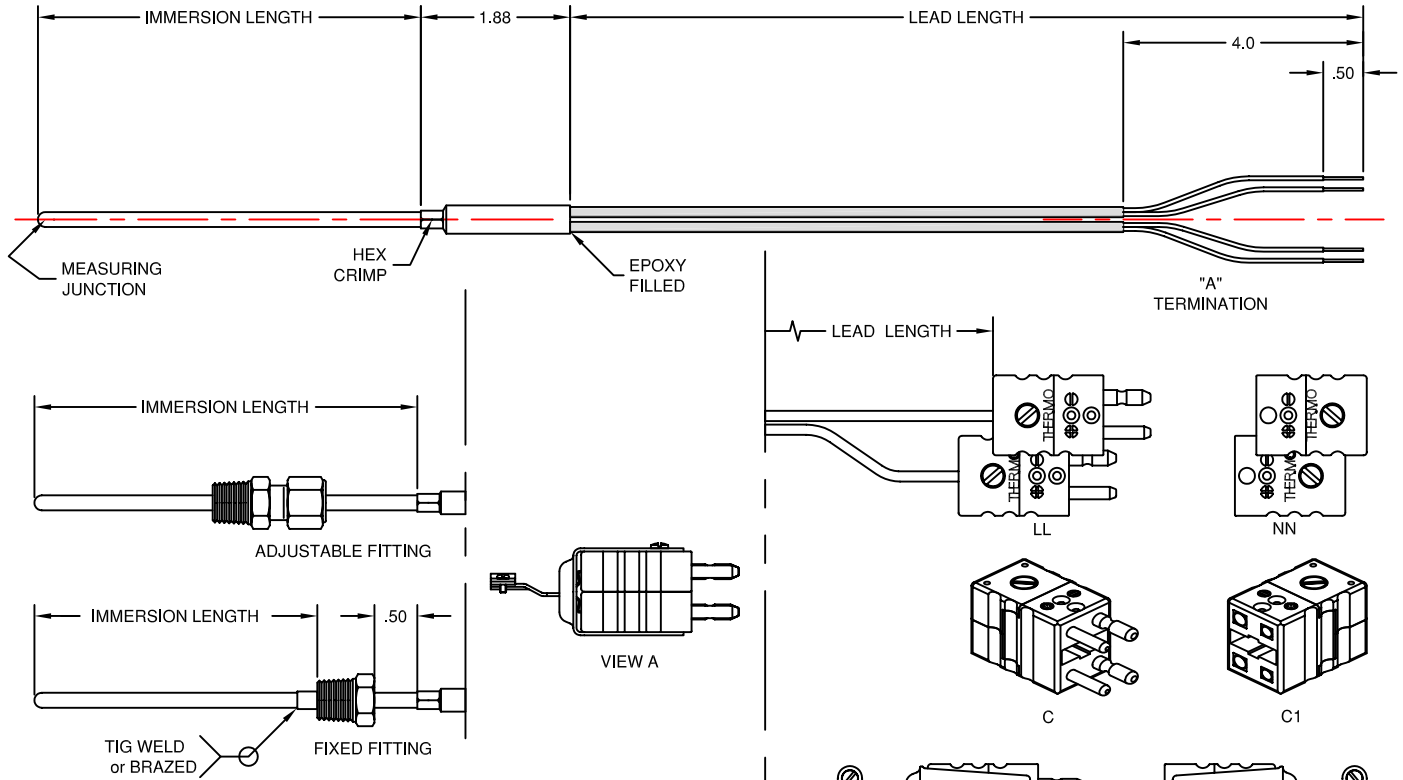
with PVC, TEFLON(FEP) LEAD WIRE

SINGLE CONSTRUCTION

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Doc. No.: TE-CO010109-IMTC-050

IMMERSION THERMOCOUPLES



Notes:

- (1) Meets or exceeds Special Initial Calibration Tolerances per ANSI MC96.1-1982 and ASTM E230-1993
- (2) KKS & EES denotes stabilized thermocouple and special tolerance.
- (3) Specify length of reduced tip when ordering.
- (4) Contact factory for other calibrations and/or sheath materials.
- (5) Standard 20 gauge stranded conductors.
- (6) Omit mating connector if not ordered. Mating connector can be attached to the leads.
- (7) Available with spade lugs, replace "A" with "LG".
- (8) For an item that does not fall within the catalog description an (SP) can be added to the ordering code as part of a custom construction.

CODE	SPECIAL (NOTE 1)	CALIBRATION
J	JJ	IRON(+) vs CONSTANTAN(-)
K	KK	CHROMEL(+) vs ALUMEL(-)
T	TT	COPPER(+) vs CONSTANTAN(-)
E	EE	CHROMEL(+) vs CONSTANTAN(-)
N	NN	NICROSIL(+) vs NISIL(-)
KKS		CHROMEL(+) vs ALUMEL(-) (NOTE 2)
EES		CHROMEL(+) vs CONSTANTAN(-) (NOTE 2)

CODE	SHEATH DIAMETER		
	FRACTION	DECIMAL	METRIC
125	1/25"	.040	1.1mm
116	1/16"	.063	1.6mm
18	1/8"	.125	3.2mm
316	3/16"	.187	4.8mm
14	1/4"	.250	6.4mm
516	5/16"	.313	8.0mm
38	3/8"	.375	9.5mm

CODE	MEASURING JUNCTION
DG	GROUNDING
DU	UNGROUNDING
DRG	REDUCED GRD. (NOTE 3)
DRU	REDUCED UNGRD. (NOTE 3)
DE	EXPOSED LOOP

CODE	SHEATH MATERIAL	
	MATERIAL	STD. CALIBRATIONS (NOTE 4)
304	304 STN. STL.	J, K, T
316	316 STN. STL.	J, K, T, E, N
310	310 STN. STL.	J, K, E
1600	INCONEL 600	K, N, KKS(NOTE 2), EES(NOTE 2)

CALIBRATION	SHEATH DIAMETER	MEASURING JUNCTION	SHEATH MATERIAL	FITTING	IMMERSION LENGTH	LEAD LENGTH	LEAD TYPE	TERMINATION	MATING CONNECTOR
E	38	DG	310	0	24	48	5	Cx	Cx1

CODE	FITTING	CODE	THREAD SIZE
BR	ADJUSTABLE BRASS, BRASS INSERT	1/8	1/8"NPT
BRT	READJUSTABLE BRASS, TEFLON INSERT	1/4	1/4"NPT
SS	ADJUSTABLE STN. STL., STN. STL. INSERT	1/2	1/2"NPT
SST	READJUSTABLE STN. STL., TEFLON INSERT		
SSL	READJUSTABLE STN. STL., LAVA INSERT		
FX	FIXED STN. STL., ATTACHED TO SHEATH		
0	FITTING NOT REQUIRED		

CODE	IMMERSION LENGTH (IN INCHES)
------	------------------------------

CODE	LEAD LENGTH (IN INCHES)
------	-------------------------

CODE	LEAD TYPE (NOTE 5)
4	PVC INSULATION & JACKETED
5	TEFLON(FEP) INSULATION & JACKETED

CODE	TERMINATION	MATING CONN. (NOTE 6)	TEMPERATURE LIMIT
A	BARE ENDS (NOTE 7)	C1	390°F(200°C)
C	STANDARD SIZE DUPLEX PLUG	Cx1	660°F(320°C)
Cx	EXTENDED LIMITS DUPLEX PLUG	Cx1	660°F(320°C)
CxHD	EXT. LIMITS SOLID PIN DUPLEX PLUG	Cx1	660°F(320°C)
T3	THREE PIN DUPLEX PLUG	TT3	390°F(200°C)
LL	TWO STANDARD SIZE 2-PIN PLUGS	NN	390°F(200°C)



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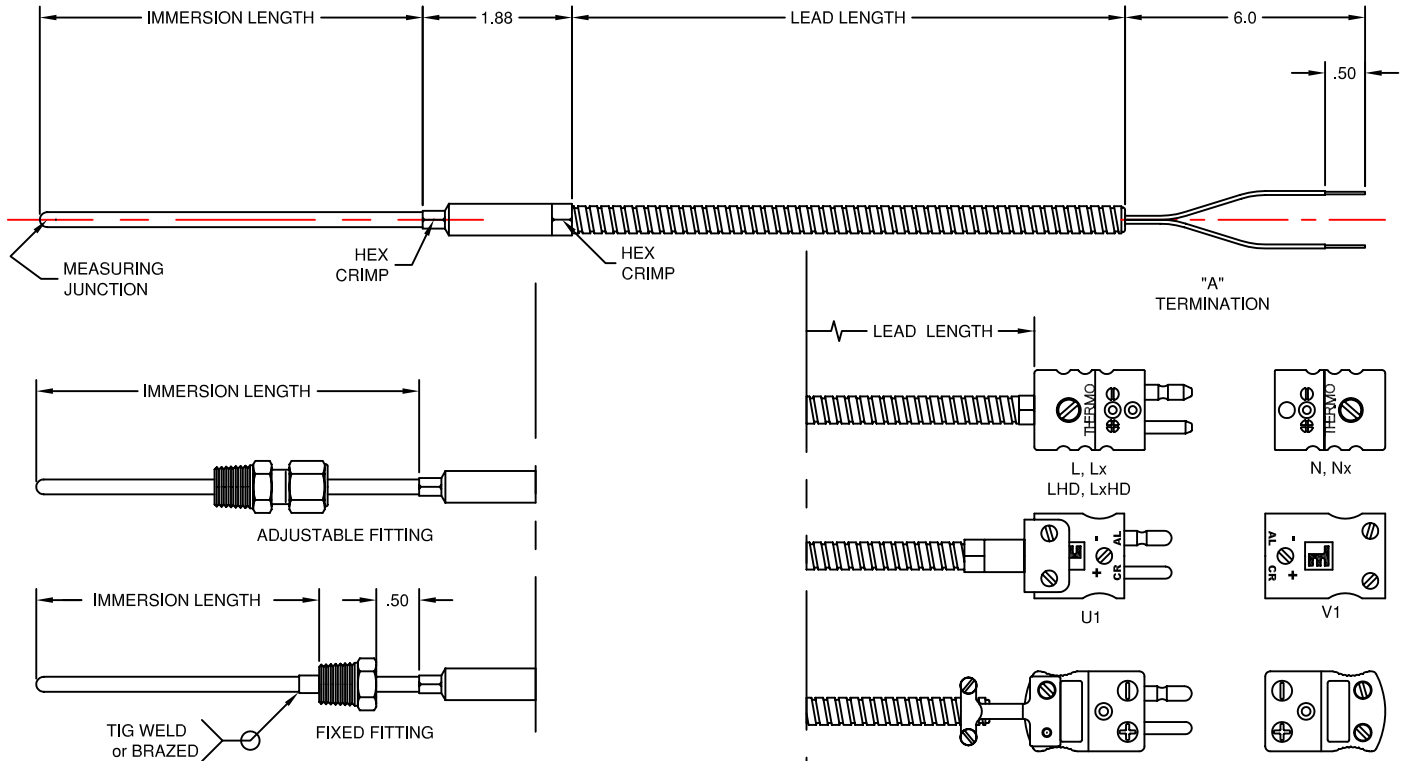
SECTION IMTC

IMMERSION THERMOCOUPLES
with PVC, TEFLON(FEP) LEAD WIRE,
DUPLEX CONSTRUCTION

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Doc. No.: TE-CO010109-IMTC-060

IMMERSION THERMOCOUPLES



Notes:

- (1) Meets or exceeds Special Initial Calibration Tolerances per ANSI MC96.1-1982 and ASTM E230-1993
- (2) KKS & EES denotes stabilized thermocouple and special tolerance.
- (3) Specify length of reduced tip when ordering.
- (4) Contact factory for other calibrations and/or sheath materials.
- (5) Standard 20 gauge stranded conductors.
- (6) Omit mating connector if not ordered. Mating connector can be attached to the leads.
- (7) Available with spade lugs, replace "A" with "LG".
- (8) For an item that does not fall within the catalog description an (SP) can be added to the ordering code as part of a custom construction.

CODE	CALIBRATION
STD.	SPECIAL (NOTE 1)
J	JJ
K	KK
T	TT
E	EE
N	NN
	KKS
	EES

CODE	SHEATH DIAMETER
	FRACTION
	DECIMAL
	METRIC
125	1/25"
116	1/16"
18	1/8"
316	3/16"
14	1/4"
516	5/16"
38	3/8"

CODE	MEASURING JUNCTION
G	GROUND
U	UNGROUND
RG	REDUCED GRD. (NOTE 3)
RU	REDUCED UNGRD. (NOTE 3)
E	EXPOSED LOOP

CODE	SHEATH MATERIAL
	MATERIAL
	STD. CALIBRATIONS (NOTE 4)
304	304 STN. STL.
316	316 STN. STL.
310	310 STN. STL.
1600	INCONEL 600

CALIBRATION	SHEATH DIAMETER	MEASURING JUNCTION	SHEATH MATERIAL	FITTING	IMMERSION LENGTH	LEAD LENGTH	LEAD TYPE	TERMINATION	MATING CONNECTOR
J	14	G	304	SS1/4	18	36	2	L	N

CODE	FITTING	CODE	THREAD SIZE
BR	ADJUSTABLE BRASS, BRASS INSERT	1/8	1/8"NPT
BRT	READJUSTABLE BRASS, TEFLON INSERT	1/4	1/4"NPT
SS	ADJUSTABLE STN. STL., STN. STL. INSERT	1/2	1/2"NPT
SST	READJUSTABLE STN. STL., TEFLON INSERT		
SSL	READJUSTABLE STN. STL., LAVA INSERT		
FX	FIXED STN. STL., ATTACHED TO SHEATH		
0	FITTING NOT REQUIRED		

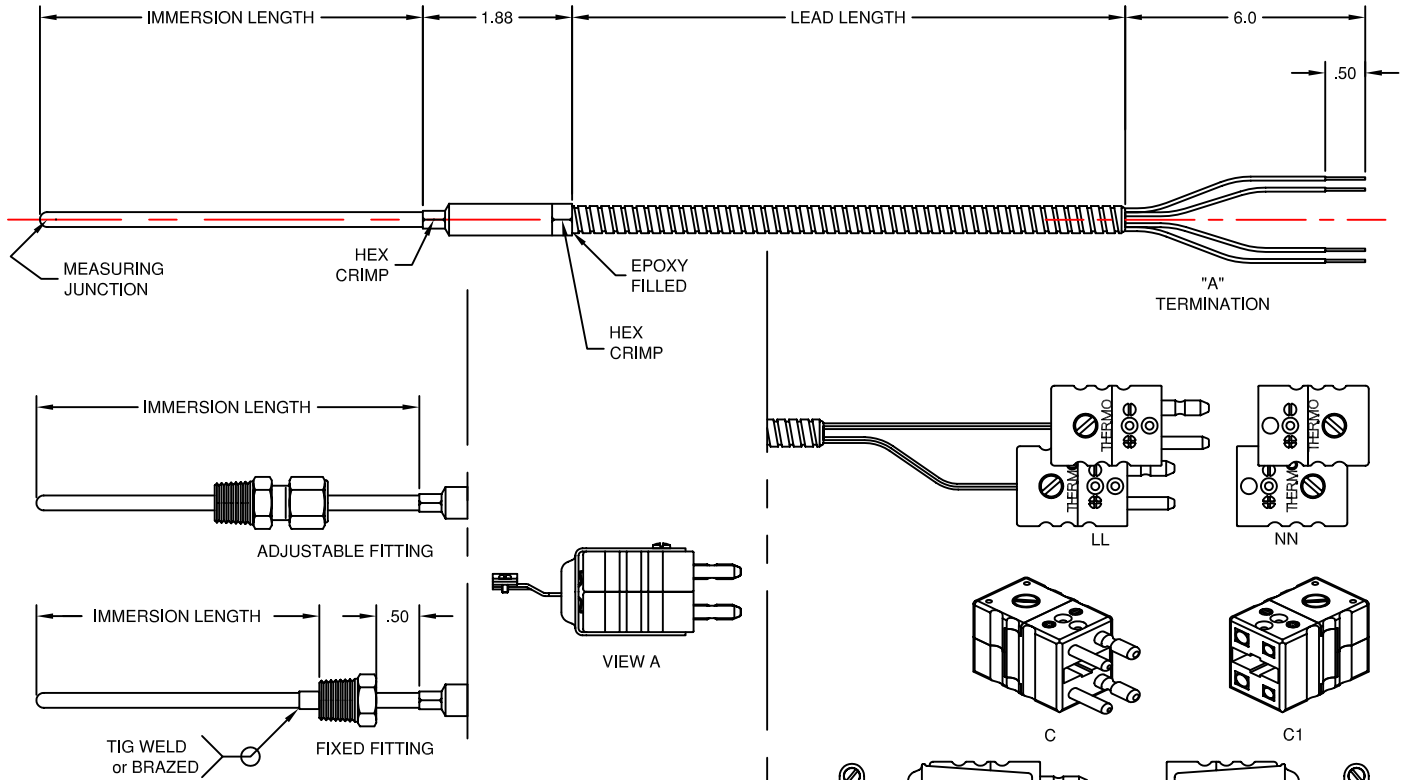
CODE	IMMERSION LENGTH (IN INCHES)
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CODE	LEAD LENGTH (IN INCHES)
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CODE	LEAD TYPE (NOTE 5)
2	FIBERGLASS, ARMOR OVERALL
8	PVC, ARMOR OVERALL

CODE	TERMINATION	MATING CONN. (NOTE 6)
		CODE
A	BARE ENDS (NOTE 7)	N
L	STANDARD SIZE PLUG	N
LHD	STANDARD SIZE SOLID PIN PLUG	Nx
Lx	EXTENDED LIMITS PLUG	Nx
LxHD	EXTENDED LIMITS SOLID PIN PLUG	Nx
U1	IMPACT RESISTANT PHENOLIC PLUG	V1
X	ULTRA-TEMP PLUG	X1
T	THREE PIN PLUG	T1
H	MINIATURE PLUG	K

IMMERSION THERMOCOUPLES



Notes:

- (1) Meets or exceeds Special Initial Calibration Tolerances per ANSI MC96.1-1982 and ASTM E230-1993
- (2) KKS & EES denotes stabilized thermocouple and special tolerance.
- (3) Specify length of reduced tip when ordering.
- (4) Contact factory for other calibrations and/or sheath materials.
- (5) Standard 20 gauge stranded conductors.
- (6) Omit mating connector if not ordered. Mating connector can be attached to the leads.
- (7) Available with spade lugs, replace "A" with "LG".
- (8) For an item that does not fall within the catalog description an (SP) can be added to the ordering code as part of a custom construction.

CODE STD.	SPECIAL (NOTE 1)	CALIBRATION
J	JJ	IRON(+) vs CONSTANTAN(-)
K	KK	CHROMEL(+) vs ALUMEL(-)
T	TT	COPPER(+) vs CONSTANTAN(-)
E	EE	CHROMEL(+) vs CONSTANTAN(-)
N	NN	NICROSIL(+) vs NISIL(-)
KKS		CHROMEL(+) vs ALUMEL(-) (NOTE 2)
EES		CHROMEL(+) vs CONSTANTAN(-) (NOTE 2)

CODE	SHEATH DIAMETER		
	FRACTION	DECIMAL	METRIC
125	1/25"	.040	1.1mm
116	1/16"	.063	1.6mm
18	1/8"	.125	3.2mm
316	3/16"	.187	4.8mm
14	1/4"	.250	6.4mm
516	5/16"	.313	8.0mm
38	3/8"	.375	9.5mm

CODE	MEASURING JUNCTION
DG	GROUNDING
DU	UNGROUNDING
DRG	REDUCED GRD. (NOTE 3)
DRU	REDUCED UNGRD. (NOTE 3)
DE	EXPOSED LOOP

CODE	SHEATH MATERIAL	
	MATERIAL	STD. CALIBRATIONS (NOTE 4)
304	304 STN. STL.	J, K, T
316	316 STN. STL.	J, K, T, E, N
310	310 STN. STL.	J, K, E
1600	INCONEL 600	K, N, KKS(NOTE 2), EES(NOTE 2)

CALIBRATION	SHEATH DIAMETER	MEASURING JUNCTION	SHEATH MATERIAL	FITTING	IMMERSION LENGTH	LEAD LENGTH	LEAD TYPE	TERMINATION	MATING CONNECTOR
E	316	DG	310	0	30	108	8	C	C1

CODE	FITTING	CODE	THREAD SIZE
BR	ADJUSTABLE BRASS, BRASS INSERT	1/8	1/8"NPT
BRT	ADJUSTABLE BRASS, TEFLON INSERT	1/4	1/4"NPT
SS	ADJUSTABLE STN. STL., STN. STL. INSERT	1/2	1/2"NPT
SST	ADJUSTABLE STN. STL., TEFLON INSERT		
SSL	ADJUSTABLE STN. STL., LAVA INSERT		
FX	FIXED STN. STL., ATTACHED TO SHEATH		
0	FITTING NOT REQUIRED		

CODE	IMMERSION LENGTH (IN INCHES)
------	------------------------------

CODE	LEAD LENGTH (IN INCHES)
------	-------------------------

CODE	LEAD TYPE (NOTE 5)
2	FIBERGLASS, ARMOR OVERALL
8	PVC, ARMOR OVERALL

CODE	TERMINATION	MATING CONN. (NOTE 6)	TEMPERATURE LIMIT
A	BARE ENDS (NOTE 7)	C1	390°F(200°C)
Cx	STANDARD SIZE DUPLEX PLUG	Cx1	660°F(320°C)
CxHD	EXT. LIMITS DUPLEX PLUG	Cx1	660°F(320°C)
T3	THREE PIN DUPLEX PLUG	TT3	390°F(200°C)
LL	TWO STANDARD SIZE 2-PIN PLUGS	NN	390°F(200°C)



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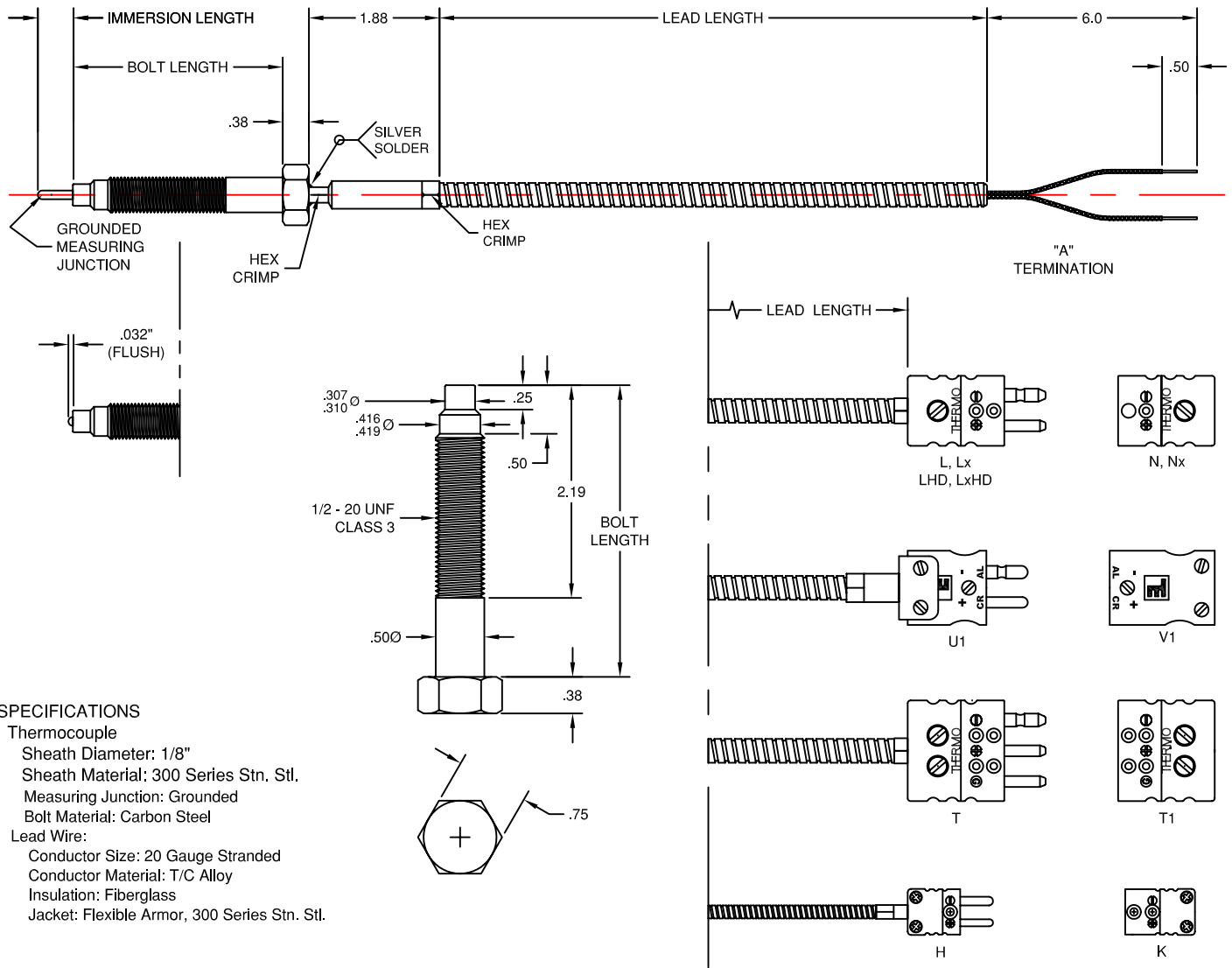
SECTION IMTC

IMMERSION THERMOCOUPLES
with ARMOR LEAD WIRE,
DUPLEX CONSTRUCTION

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Doc. No.: TE-CO010109-IMTC-080

IMMERSION THERMOCOUPLES



SPECIFICATIONS

Thermocouple

Sheath Diameter: 1/8"
 Sheath Material: 300 Series Stn. Stl.
 Measuring Junction: Grounded
 Bolt Material: Carbon Steel
 Lead Wire:
 Conductor Size: 20 Gauge Stranded
 Conductor Material: T/C Alloy
 Insulation: Fiberglass
 Jacket: Flexible Armor, 300 Series Stn. Stl.

ORDERING CODE:

TCPM24525 — CALIBRATION — BOLT LENGTH — IMMERSION LENGTH — LEAD LENGTH — 2 — TERMINATION — MATING CONNECTOR

J — 3 — FL — 36 — L — N

Notes:

- (1) Meets or exceeds Special Initial Calibration Tolerances per ANSI MC96.1-1982 and ASTM E230-1993
- (2) Bolt and Sheath available in other materials (Hastelloy C276, 300 series Stn. Stl.).
- (3) Omit mating connector if not ordered. Mating connector can be attached to the leads.
- (4) Available with spade lugs, replace "A" with "LG".
- (5) For an item that does not fall within the catalog description an (SP) can be added to the ordering code as part of a custom construction.

EXAMPLE: TCPM24525-J-3-FL-36-2L/N

CODE	LEAD LENGTH (IN INCHES)
FL	FLUSH
1/2	1/2"
1	1"

CODE	BOLT LENGTH
3	3"
6	6"
9	9"
12	12"

CODE	IMMERSION LENGTH
FL	FLUSH
1/2	1/2"
1	1"

CODE	TERMINATION	MATING CONN. (NOTE 3)	TEMPERATURE LIMIT
A	BARE ENDS (NOTE 4)	N	390°F(200°C)
L	STANDARD SIZE PLUG	N	390°F(200°C)
LHD	STANDARD SIZE SOLID PIN PLUG	Nx	660°F(320°C)
Lx	EXTENDED LIMITS PLUG	Nx	660°F(320°C)
LxHD	EXTENDED LIMITS SOLID PIN PLUG	Nx	660°F(320°C)
U1	IMPACT RESISTANT PHENOLIC PLUG	V1	300°F(150°C)
T	THREE PIN PLUG	T1	390°F(200°C)
H	MINIATURE PLUG	K	390°F(200°C)

CODE	SPECIAL (NOTE 1)	CALIBRATION
J	JJ	IRON(+) vs CONSTANTAN(-)
K	KK	CHROMEL(+) vs ALUMEL(-)
T	TT	COPPER(+) vs CONSTANTAN(-)
E	EE	CHROMEL(+) vs CONSTANTAN(-)
N	NN	NICROSIL(+) vs NISIL(-)



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SECTION IMTC

PLASTIC MELT BOLT THERMOCOUPLES

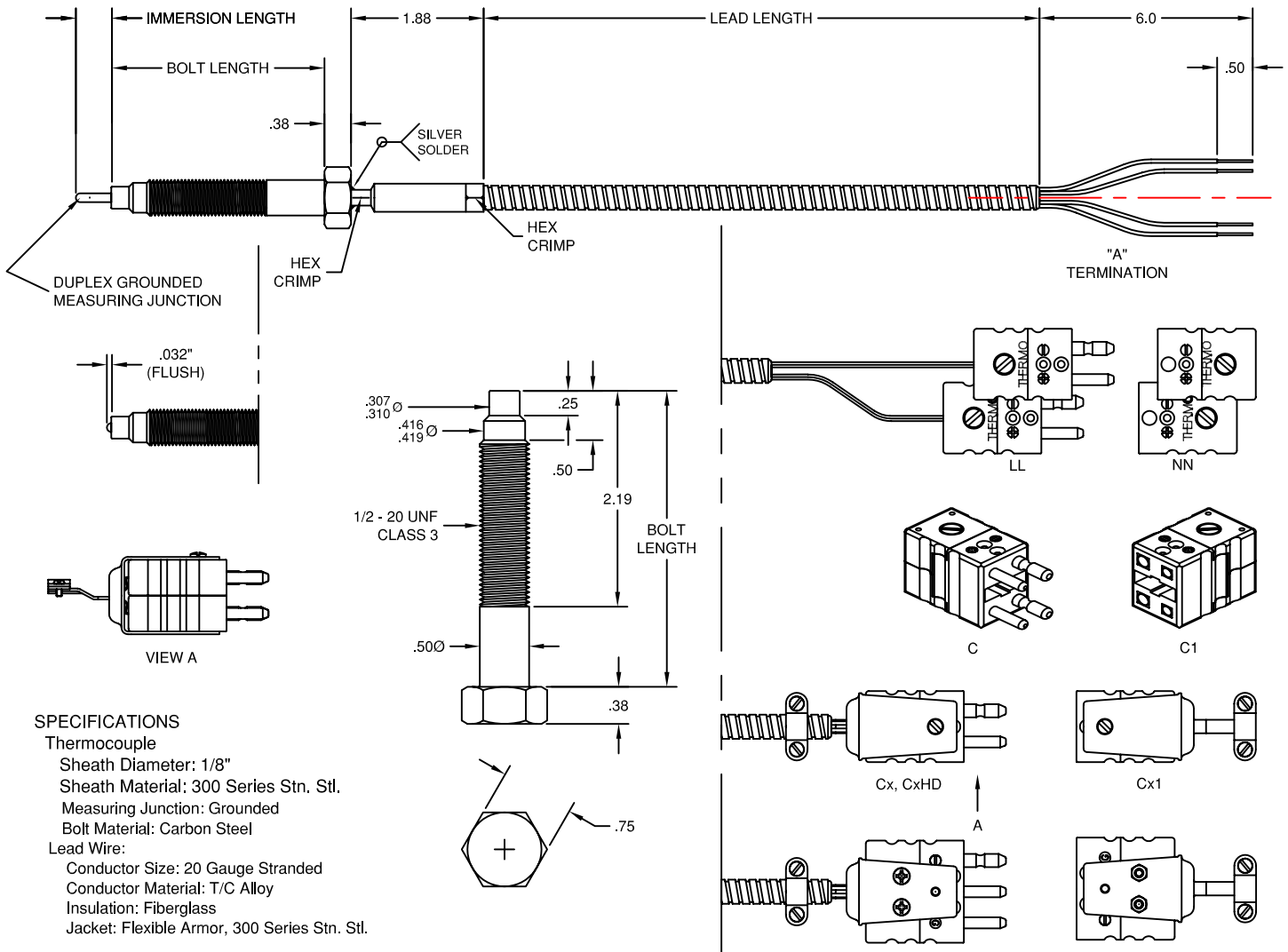
with ARMORED LEAD WIRE

SINGLE CONSTRUCTION

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Doc. No.: TE-CO010109-IMTC-090

IMMERSION THERMOCOUPLES



ORDERING CODE:

D-TCPM24525 —

CALIBRATION
J

 —

BOLT LENGTH
3

 —

IMMERSSION LENGTH
FL

 —

LEAD LENGTH
36

 — 2 —

TERMINATION
C

 /

MATING CONNECTOR
C1

Notes:

- (1) Meets or exceeds Special Initial Calibration Tolerances per ANSI MC96.1-1982 and ASTM E230-1993
- (2) Bolt and Sheath available in other materials (Hastelloy C276, 300 series Stn. Stl.).
- (3) Omit mating connector if not ordered. Mating connector can be attached to the leads.
- (4) Available with spade lugs, replace "A" with "LG".
- (5) For an item that does not fall within the catalog description an (SP) can be added to the ordering code as part of a custom construction.

EXAMPLE: D-TCPM24525-J-3-FL-36-2C/C1

CODE	LEAD LENGTH (IN INCHES)
FL	FLUSH
1/2	1/2"
1	1"

CODE	BOLT LENGTH
3	3"
6	6"
9	9"
12	12"

CODE	IMMERSSION LENGTH
FL	FLUSH
1/2	1/2"
1	1"

CODE	TERMINATION	MATING CONN. (NOTE 6)
A	BARE ENDS (NOTE 7)	CODE
C	STANDARD SIZE DUPLEX PLUG	C1
Cx	EXTENDED LIMITS DUPLEX PLUG	Cx1
CxHD	EXT. LIMITS SOLID PIN DUPLEX PLUG	Cx1
T3	THREE PIN DUPLEX PLUG	TT3
LL	TWO STANDARD SIZE 2-PIN PLUGS	NN

CODE	TEMPERATURE LIMIT
C1	390°F (200°C)
Cx1	660°F (320°C)
TT3	390°F (200°C)
NN	390°F (200°C)

CODE	CALIBRATION
J	IRON(+) vs CONSTANTAN(-)
K	CHROMEL(+) vs ALUMEL(-)
T	COPPER(+) vs CONSTANTAN(-)
E	CHROMEL(+) vs CONSTANTAN(-)
N	NICROSIL(+) vs NISIL(-)

CODE	TERMINATION	MATING CONN. (NOTE 6)
A	BARE ENDS (NOTE 7)	CODE
C	STANDARD SIZE DUPLEX PLUG	C1
Cx	EXTENDED LIMITS DUPLEX PLUG	Cx1
CxHD	EXT. LIMITS SOLID PIN DUPLEX PLUG	Cx1
T3	THREE PIN DUPLEX PLUG	TT3
LL	TWO STANDARD SIZE 2-PIN PLUGS	NN



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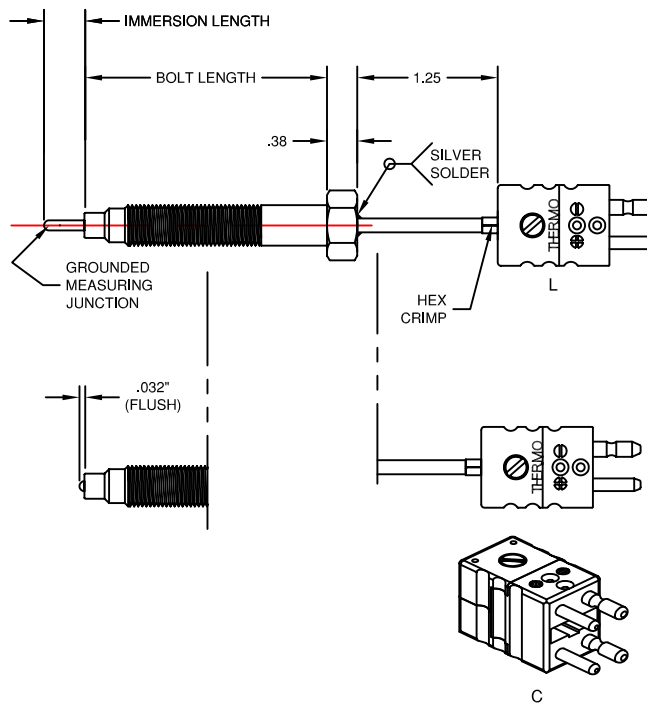
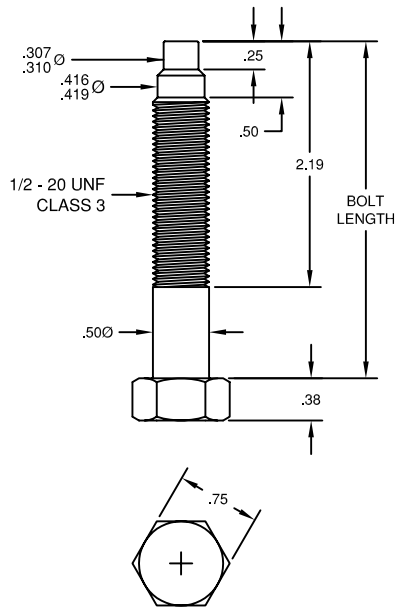
SECTION IMTC

PLASTIC MELT THERMOCOUPLES with ARMORED LEAD WIRE DUPLEX CONSTRUCTION

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Doc. No.: TE-CO010109-IMTC-100

IMMERSION THERMOCOUPLES



SINGLE

DUPLEX

ORDERING CODE (SINGLE):

CODE	IMMERSION LENGTH	CALIBRATION	BOLT LENGTH	MATING CONNECTOR
TCPM11234	1/2"	J	3	N (NOTE 3)
TCPM11235	1"			
TCPM11257	FLUSH			

CODE	STD.	SPECIAL (NOTE 1)	CALIBRATION
J	JJ		IRON(+) vs CONSTANTAN(-)
K	KK		CHROMEL(+) vs ALUMEL(-)
T	TT		COPPER(+) vs CONSTANTAN(-)
E	EE		CHROMEL(+) vs CONSTANTAN(-)
N	NN		NICROSIL(+) vs NISIL(-)

CODE	BOLT LENGTH
3	3"
6	6"
9	9"
12	12"

SPECIFICATIONS

Sheath Diameter: 1/8"
Sheath Material: 300 Series Stn. Stl.
Measuring Junction: Grounded
Bolt Material: Carbon Steel

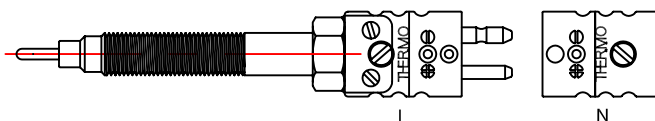
ORDERING CODE (DUPLEX):

CODE	IMMERSION LENGTH	CALIBRATION	BOLT LENGTH	MATING CONNECTOR
D-TCPM11234	1/2"	J	3	C1 (NOTE 3)
D-TCPM11235	1"			
D-TCPM11237	FLUSH			

Notes:

- (1) Meets or exceeds Special Initial Calibration Tolerances per ANSI MC96.1-1982 and ASTM E230-1993
- (2) Bolt and Sheath available in other materials (Hastelloy C276, 300 series Stn. Stl.).
- (3) Omit mating connector if not ordered. Mating connector can be attached to the sheath.
- (4) For an item that does not fall within the catalog description an (SP) can be added to the ordering code as part of a custom construction.

SINGLE ONLY



CODE	IMMERSION LENGTH	CALIBRATION	BOLT LENGTH	MATING CONNECTOR
TCPM24892-1	1"	J	3	N (NOTE 3)
TCPM24892-2	1/2"			
TCPM24892-3	FLUSH			

CODE	STD.	SPECIAL (NOTE 1)	CALIBRATION
J	JJ		IRON(+) vs CONSTANTAN(-)
K	KK		CHROMEL(+) vs ALUMEL(-)
T	TT		COPPER(+) vs CONSTANTAN(-)
E	EE		CHROMEL(+) vs CONSTANTAN(-)

CODE	BOLT LENGTH
3	3"
6	6"
9	9"
12	12"



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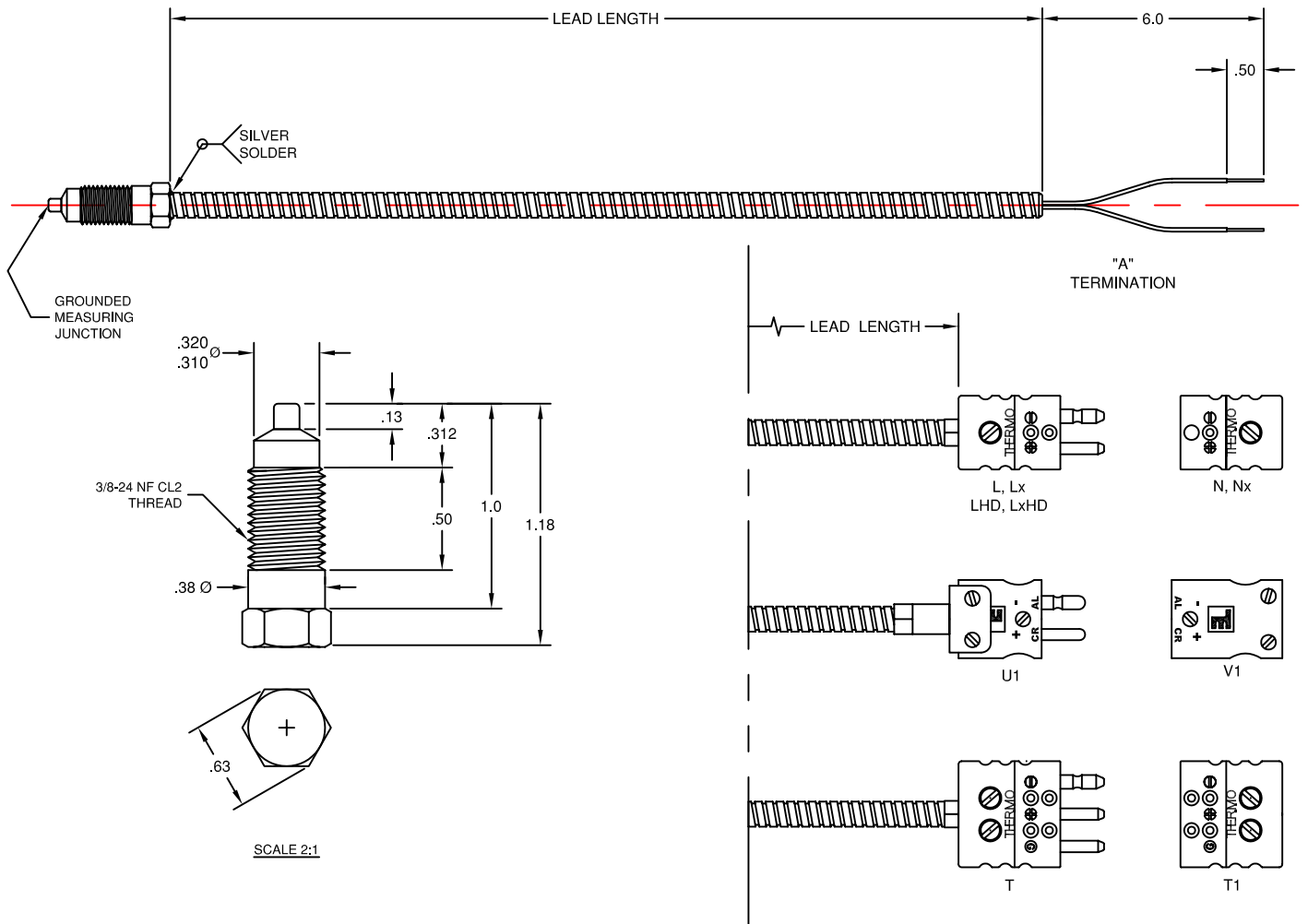
SECTION IMTC

PLASTIC MELT BOLT THERMOCOUPLES
with BENDABLE & RIGID CONNECTOR EXTENSION
SINGLE & DUPLEX CONSTRUCTION

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Doc. No.: TE-CO010109-IMTC-110

IMMERSION THERMOCOUPLES



Notes:

- (1) Meets or exceeds Special Initial Calibration Tolerances per ANSI MC96.1-1982 and ASTM E230-1993
- (2) Bolt and Sheath available in other materials (Hastelloy C276, 300 series Stn. Stl.).
- (3) Omit mating connector if not ordered.
- (4) Available with spade lugs, replace "A" with "LG".
- (5) For an item that does not fall within the catalog description an (SP) can be added to the ordering code as part of a custom construction.

ORDERING CODE:

TCPM24340 — CALIBRATION — J — LEAD LENGTH — 36 — 2 — TERMINATION — L — / — MATING CONNECTOR — N

CODE		
STD.	SPECIAL (NOTE 1)	CALIBRATION
J	JJ	IRON(+) vs CONSTANTAN(-)
K	KK	CHROMEL(+) vs ALUMEL(-)
T	TT	COPPER(+) vs CONSTANTAN(-)
E	EE	CHROMEL(+) vs CONSTANTAN(-)
N	NN	NICROSIL(+) vs NISIL(-)

CODE	LEAD LENGTH (IN INCHES)
------	-------------------------

CODE	TERMINATION	MATING CONN. (NOTE 3)	
		CODE	TEMPERATURE LIMIT
A	BARE ENDS (NOTE 4)		
L	STANDARD SIZE PLUG	N	390°F(200°C)
LHD	STANDARD SIZE SOLID PIN PLUG	N	390°F(200°C)
Lx	EXTENDED LIMITS PLUG	Nx	660°F(320°C)
LxHD	EXTENDED LIMITS SOLID PIN PLUG	Nx	660°F(320°C)
U1	IMPACT RESISTANT PHENOLIC PLUG	V1	390°F(150°C)
T	THREE PIN PLUG	T1	390°F(200°C)
H	MINIATURE PLUG	K	390°F(200°C)

SPECIFICATIONS

Thermocouple

Sheath Diameter: 1/8"

Sheath Material: 300 Series Stn. Stl.

Measuring Junction: Grounded

Bolt Material: 304 Stainless Steel

Lead Wire:

Conductor Size: 20 Gauge Stranded

Conductor Material: T/C Alloy

Insulation: Fiberglass

Jacket: Flexible Armor, 300 Series Stn. Stl.



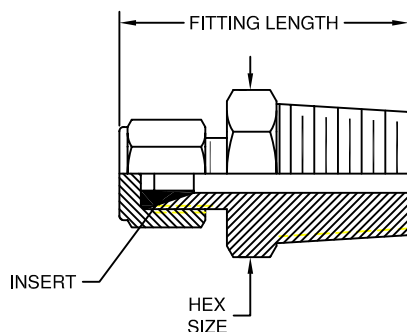
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SECTION IMTC PLASTIC MELT BOLT THERMOCOUPLES NOZZLE TYPE SINGLE CONSTRUCTION

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Doc. No.: TE-CO010109-IMTC-120

IMMERSION THERMOCOUPLES



**BORE THROUGH BRASS
COMPRESSION TUBE FITTINGS**

ORDERING CODE	PROCESS THREAD SIZE	SHEATH (TUBE) DIAMETER	INSERT MATERIAL	FITTING LENGTH	HEX SIZE
AF4350-1-B	1/8"NPT	1/16" (.063)	BRASS	1.03	7/16
AF4350-2-B	1/8"NPT	1/8" (.125)	BRASS	1.20	7/16
AF4350-3-B	1/8"NPT	3/16" (.188)	BRASS	1.23	7/16
AF4350-4-B	1/8"NPT	1/4" (.250)	BRASS	1.29	1/2
AF4173-4-B	1/4"NPT	1/16" (.063)	BRASS	1.23	9/16
AF4173-3-B	1/4"NPT	1/8" (.125)	BRASS	1.40	9/16
AF4173-2-B	1/4"NPT	3/16" (.188)	BRASS	1.43	9/16
AF4173-1-B	1/4"NPT	1/4" (.250)	BRASS	1.49	9/16
ORDERING CODE	PROCESS THREAD SIZE	SHEATH (TUBE) DIAMETER	INSERT MATERIAL	FITTING LENGTH	HEX SIZE
AF4350-1-T	1/8"NPT	1/16" (.063)	TEFLON®	1.03	7/16
AF4350-2-T	1/8"NPT	1/8" (.125)	TEFLON®	1.20	7/16
AF4350-3-T	1/8"NPT	3/16" (.188)	TEFLON®	1.23	7/16
AF4350-4-T	1/8"NPT	1/4" (.250)	TEFLON®	1.29	1/2
AF4173-4-T	1/4"NPT	1/16" (.063)	TEFLON®	1.23	9/16
AF4173-3-T	1/4"NPT	1/8" (.125)	TEFLON®	1.40	9/16
AF4173-2-T	1/4"NPT	3/16" (.188)	TEFLON®	1.43	9/16
AF4173-1-T	1/4"NPT	1/4" (.250)	TEFLON®	1.49	9/16

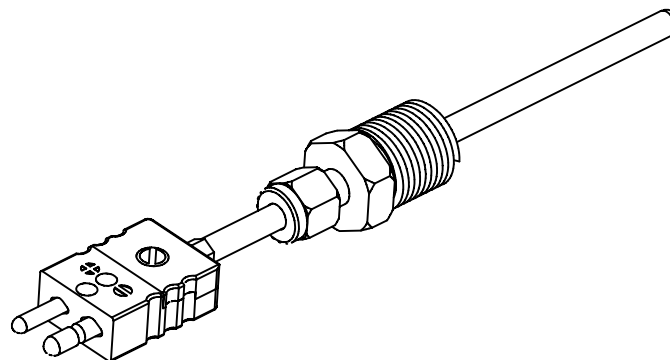
REPLACEMENT INSERTS

ORDERING CODE	SHEATH(TUBE) DIAMETER	INSERT MATERIAL
FRC6443-1	1/16" (.063)	TEFLON®
FRC6443-2	1/8" (.125)	TEFLON®
FRC6443-3	3/16" (.188)	TEFLON®
FRC6443-4	1/4" (.250)	TEFLON®
FR5712-3	1/16" (.063)	LAVA
FR5712-1	1/8" (.125)	LAVA
FR5712-4	3/16" (.188)	LAVA
FR5712-2	1/4" (.250)	LAVA

REDUCING BUSHING

ORDERING CODE
RE1086-4

Size: 1/4"NPT Female
by 1/2"NPT Male



**BORE THROUGH STAINLESS STEEL COMPRESSION
TUBE FITTINGS**

ORDERING CODE	PROCESS THREAD SIZE	SHEATH (TUBE) DIAMETER	INSERT MATERIAL	FITTING LENGTH	HEX SIZE
AF2485-4-S	1/8"NPT	1/16" (.063)	STN. STL.	1.03	7/16
AF2485-3-S	1/8"NPT	1/8" (.125)	STN. STL.	1.20	7/16
AF2485-2-S	1/8"NPT	3/16" (.188)	STN. STL.	1.23	7/16
AF2485-1-S	1/8"NPT	1/4" (.250)	STN. STL.	1.29	1/2
AF2502-6-S	1/4"NPT	1/16" (.063)	STN. STL.	1.23	9/16
AF2502-5-S	1/4"NPT	1/8" (.125)	STN. STL.	1.40	9/16
AF2502-4-S	1/4"NPT	3/16" (.188)	STN. STL.	1.43	9/16
AF2502-1-S	1/4"NPT	1/4" (.250)	STN. STL.	1.49	9/16
AF2817-6-S	1/2"NPT	1/8" (.125)	STN. STL.	1.87	7/8
AF2817-5-S	1/2"NPT	3/16" (.188)	STN. STL.	1.87	7/8
AF2817-2-S	1/2"NPT	1/4" (.250)	STN. STL.	1.87	7/8
ORDERING CODE	PROCESS THREAD SIZE	SHEATH (TUBE) DIAMETER	INSERT MATERIAL	FITTING LENGTH	HEX SIZE
AF2485-4-T	1/8"NPT	1/16" (.063)	TEFLON®	1.03	7/16
AF2485-3-T	1/8"NPT	1/8" (.125)	TEFLON®	1.20	7/16
AF2485-2-T	1/8"NPT	3/16" (.188)	TEFLON®	1.23	7/16
AF2485-1-T	1/8"NPT	1/4" (.250)	TEFLON®	1.29	1/2
AF2502-6-T	1/4"NPT	1/16" (.063)	TEFLON®	1.23	9/16
AF2502-5-T	1/4"NPT	1/8" (.125)	TEFLON®	1.40	9/16
AF2502-4-T	1/4"NPT	3/16" (.188)	TEFLON®	1.43	9/16
AF2502-1-T	1/4"NPT	1/4" (.250)	TEFLON®	1.49	9/16
AF2817-6-T	1/2"NPT	1/8" (.125)	TEFLON®	1.87	7/8
AF2817-5-T	1/2"NPT	3/16" (.188)	TEFLON®	1.87	7/8
AF2817-2-T	1/2"NPT	1/4" (.250)	TEFLON®	1.87	7/8
ORDERING CODE	PROCESS THREAD SIZE	SHEATH (TUBE) DIAMETER	INSERT MATERIAL	FITTING LENGTH	HEX SIZE
AF2485-4-L	1/8"NPT	1/16" (.063)	LAVA	1.03	7/16
AF2485-3-L	1/8"NPT	1/8" (.125)	LAVA	1.20	7/16
AF2485-2-L	1/8"NPT	3/16" (.188)	LAVA	1.23	7/16
AF2485-1-L	1/8"NPT	1/4" (.250)	LAVA	1.29	1/2
AF2502-6-L	1/4"NPT	1/16" (.063)	LAVA	1.23	9/16
AF2502-5-L	1/4"NPT	1/8" (.125)	LAVA	1.40	9/16
AF2502-4-L	1/4"NPT	3/16" (.188)	LAVA	1.43	9/16
AF2502-1-L	1/4"NPT	1/4" (.250)	LAVA	1.49	9/16
AF2817-6-L	1/2"NPT	1/8" (.125)	LAVA	1.87	7/8
AF2817-5-L	1/2"NPT	3/16" (.188)	LAVA	1.87	7/8
AF2817-2-L	1/2"NPT	1/4" (.250)	LAVA	1.87	7/8

SPECIFICATIONS

Service: 5000 PSI @ 68° F.

Fittings with Brass & Stainless Steel Inserts

Can not be relocated once tightened

Fittings with Teflon Inserts

Can be relocated if used below 400° F.

Fittings with Lava Inserts

Can be relocated if insert is replaced



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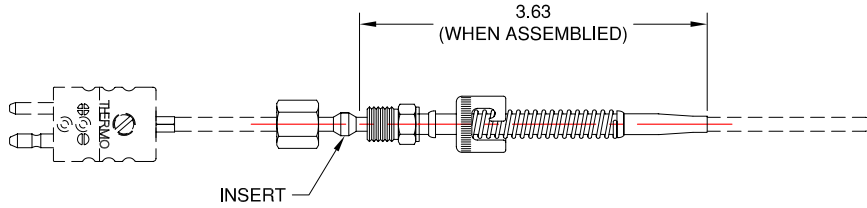
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Doc. No.: TE-CO010109-IMTC-130

IMMERSION THERMOCOUPLES

ADJUSTABLE BAYONET MOUNTING ADAPTERS

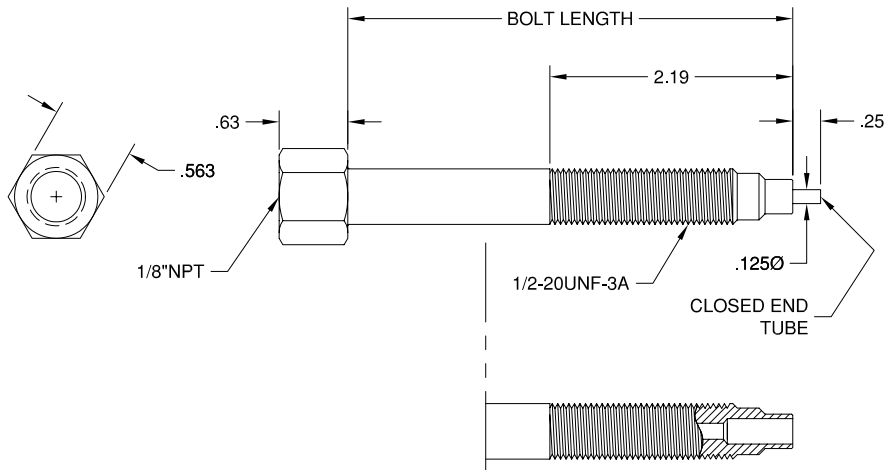


ORDERING CODE	INSERT MATERIAL	SHEATH (TUBE) DIAMETER
BY21240-1	TEFLON	1/16" (.063)
BY21240-3	BRASS	1/16" (.063)
BY21240-4	TEFLON	1/8" (.125)
BY21240-6	BRASS	1/8" (.125)

SPECIFICATIONS

1. Bayonet mounting adapters suitable for any 1/16" or 1/8" diameter immersion element.
2. Adapters with Teflon inserts are re-adjustable and rated to 500° F

PLASTIC MELT BOLT ADAPTERS



CLOSED END

ORDERING CODE	BOLT LENGTH	SHEATH (TUBE) DIAMETER
FTPM28870-1	3"	1/16" (.063)
FTPM28870-2	6"	
FTPM28870-3	12"	

SPECIFICATIONS

1. Closed end plastic melt bolt fitting suitable for any 1/16" diameter immersion element.
2. Fitting material - 304 Stainless Steel

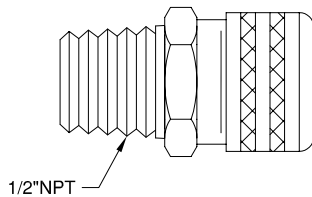
OPEN END

ORDERING CODE	BOLT LENGTH	SHEATH (TUBE) DIAMETER
FTPM28870-4	3"	1/8" (.125)
FTPM28870-5	6"	
FTPM28870-6	12"	

SPECIFICATIONS

1. Open end plastic melt bolt fitting suitable for any 1/8" diameter immersion element.
2. Fitting material - 304 Stainless Steel

WATERPROOF FITTINGS



STRAIN RELIEF BELL SPRING

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ORDERING CODE	WIRE or ARMOR DIAMETER
CCB1637-1	.125 to .250
CCB1637-2	.250 to .375
CCB1637-3	.375 to .500

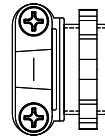
SPECIFICATIONS

1. Fits connection heads and junction boxes with 1/2"NPT openings.
2. Steel body and cap.
3. Rubber bushing.

ORDERING CODE

SG1118

BX CONNECTORS



ORDERING CODE

CC2852-1

SPECIFICATIONS

1. Connects armor lead wire to electrical outlet boxes.
2. Material - Cast Zinc.



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