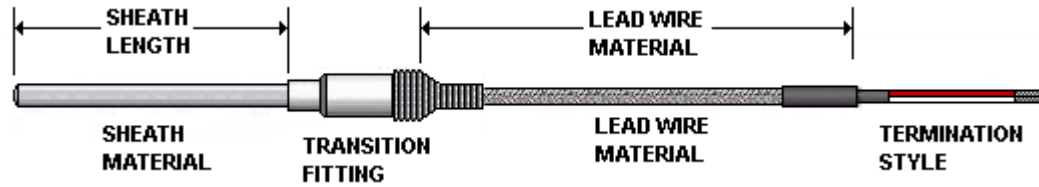


Style TL1

Mineral Insulated Thermocouple with Lead Wires



Ordering Information Part Number

① TL1	② Calibration	③ Sheath Diameter	④ Sheath Material	⑤ Sheath Length (whole in.)	⑥ Sheath Length (Frac.in.)	⑦ Junction	⑧ Transition fitting	⑨ Lead wire material	⑩ Lead wire Length (In.)	⑪ Termination Style	⑫ Special Features	⑬ Attached Fitting	⑭ Insertion Length (whole in.)	⑮ Insertion Length (Frac.in.)
TL1														

Optional

② Calibration	
J	Type J
K	Type K
T	Type T
E	Type E
W	Type J (special limits)
X	Type K (special limits)
Y	Type T (special limits)
Z	Type E (special limits)

③ Sheath Diameter	
A	.032" (0.8mm)
B	.040" (1mm)
C	.059" (1.5mm)
D	.062" (1.6mm) (1/16")
E	.079" (2mm)
F	.092" (2.3mm)
G	.118" (3mm)
H	.125" (3.2mm) (1/8")
J	.156" (4mm)
K	.177" (4.5mm)
L	.188" (4.6mm) (3/16")
M	.236 (6mm)
N	.250" (6.4mm) (1/4")
P	.314" (8mm) (5/16")
Q	.375" (9.5mm) (3/8")
Note	Sizes for reference only (standard tolerances apply)
Note	For other diameters consult factory

④ Sheath Material	
F	304 SS
H	316 SS
M	INCONEL (600)
N	446 SS
P	310 SS
Q	Hastelloy X
R	Pyrosil D

⑤ Sheath Length (whole in.)	
001"-144"	Specify in Inches

⑥ Sheath Length (fractional in.)	
A	0
B	1/8"
C	1/4"
D	3/8"
E	1/2"
F	5/8"
G	3/4"
H	7/8"

⑦ Junction	
G	Grounded (Single)
U	Ungrounded (Single)
E	Exposed (Single)
R	Exposed & Recessed (Single)
W	Grounded (Dual)
X	Ungrounded & Isolated (Dual)
Y	Ungrounded Common (Dual)
Z	Exposed & Isolated (Dual)
Note	Ungrounded & Isolated (option "X") only available in .156"OD & larger

⑧ Transition Fitting	
1	3/8"OD X 1.25" w/ spring (standard)
2	1/4"OD X 1.25" w/ spring
3	3/16"OD X 1" w/ spring
4	3/8"OD X 1.25" (no spring)
5	1/4"OD X 1.25" (no spring)
6	3/16"OD X 1" (no spring)
7	7/16"OD X 2" (no spring)
8	3/8"OD X 2" (no spring)
Note	500°F epoxy standard
Note	See special features on next page for ceramic potting

⑨ Lead wire material	
A	Fiberglass (800°F)
B	Fluoropolymer (400°F)
C	Polyimide (500°F)
D	PVC (220°F)
E	High temperature fiberglass (1200°F)
F	Fiberglass with stainless steel braid (800°F)
G	Fluoropolymer with stainless steel braid (400°F)
H	Fiberglass with armor cable (800°F)
J	Fluoropolymer with armor cable (400°F)
K	Polyimide with armor cable (500°F)
L	High temp. fiberglass w/ armor cable (1200°F)
M	Fiberglass with stainless steel braid with armor cable (800°F)
W	Fluoropolymer with stainless steel braid with armor cable (400°F)
X	High temp fiberglass w/ ss steel braid (1200°F)
Note	Wire gauge based on sheath diameter

⑩ Lead wire length (In.)	
006"-600"	Specify in Inches
Note	Over 600" contact factory

⑪ Termination style	
A	2" stripped leads (bare ends)
B	2" stripped leads w/ spade lugs
C	Standard male plug (400°F)
D	High temp male Plug (660°F)
E	Max temp male Plug (800°F)
F	Ceramic male plug (1200°F)
G	Solid pin plug (400°F)
H	Standard female jack (400°F)
J	Miniature male plug (400°F)
K	Miniature female jack (400°F)
L	2" stripped leads w/ #6 Ring terminals
N	Standard 3 pin plug w/ ground wire (400°F)
P	Dual molded male plug (400°F)
Z	Dual molded female jack (400°F)
W	2" stripped leads w/ pin terminals
Q	2" stripped leads w/ wire ferrules
X	Extra long lead wire length (beyond 2" stripped leads) (specify extra long lead wire length below)
006"-240"	006"-240" Specify in Inches

⑫ Special features (optional)	
Note	See next page

⑬ Attached Fitting (optional)	
Note	See next page

⑭ Insertion length (in.)	
Note	See next page

⑮ Insertion Length (fractional in.)	
Note	See next page

See next page for optional attached fittings & special features (Fields 12,13,14,&15)

For 90 degree bend see special features section on next page

- Solid wire is standard on MGO extension thermocouples
- For stranded wire see next page special features

SOUTHWEST HEATER AND CONTROLS

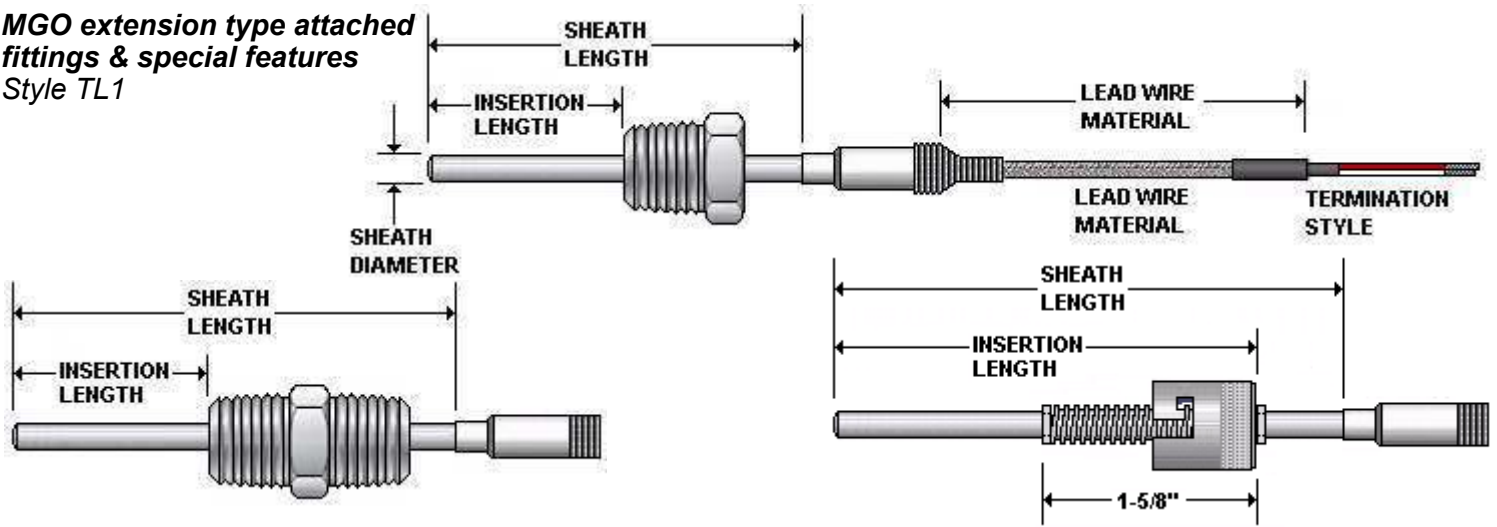
Main# 214-340-7500

Toll Free#: 800-687-2220

EMAIL: sales@swhc.com

WEB: www.swhc.com

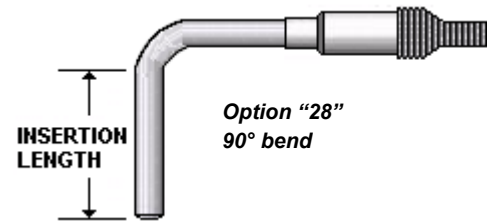
MGO extension type attached fittings & special features
Style TL1



Option "F07"
Spring loaded fitting



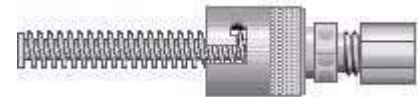
Option "10"
Armor cable adaptor



Option "28"
90° bend

Ordering Information
Part Number

⑫ Special Features	⑬ Attached Fitting	⑭ Insertion Length (whole in.)	⑮ Insertion Length (Frac.in.)



Option "F16"
Adjustable bayonet cap fitting

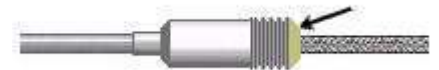
Continue part number from previous page

⑫ Special features (Optional)
Note Leave blank for no special features
47 Stranded conductor (Lead wire)
04 Flat tip probe
07 Cable clamp
08 Bx Connector
09 Mating connector
10 Armor cable adaptor
11 International IEC 584-3 color coded leads
12 British color coded leads
13 German color coded leads
14 Japanese color coded leads
15 Reverse polarity color coded leads
16 French color coded leads
18 Moisture protection boot on connector
19 High temp ceramic potting (1200°F)
21 Fluoropolymer coated armor cable (FEP Fluoropolymer)
24 Fluoropolymer covered probe
25 Free spinning fitting (held on probe by a crimp ring)
28 90 degree bend
30 45 Degree bend

⑬ Attached Fitting (Optional)
Note Leave blank for no attached fitting
F01 1/8"npt single thread
F02 1/4"npt single thread
F03 3/8"npt single thread
F04 1/2"npt single thread
F05 3/4"npt single thread
F06 1/2"npt x 1/2"npt double thread
F07 1/2"npt double thread spring loaded
F08 1/2"npt x 1/2"npt double thread spring loaded w/oil seal
F09 1/2"npt x 3/4"npt double thread
F10 3/4"npt x 3/4"npt double thread
F11 Fixed bayonet cap assembly
F14 1/2"npt x 1"npt double thread
F15 1"npt single thread
F16 Adjustable 7/16"ID bayonet cap fitting(1/8"OD & 3mm OD)
F17 Adjustable 12.5mm ID double slot bayonet cap fitting (1/8"OD & 3mm OD)
F18 1/8"npt compression fitting (Brass)
F19 1/8"npt compression fitting (Stainless steel)
F20 1/4"npt compression fitting (Brass)
F21 1/4"npt compression fitting (Stainless steel)
F22 1/2"npt compression fitting (Brass)
F23 1/2"npt compression fitting (Stainless steel)
F28 1" circular mounting flange
Note For other fittings not shown contact factory

⑭ Insertion Length (in.) (optional)	
001"-144"	Specify in Inches
Note	See pg.68-69 for attached fitting illustrations

⑮ Sheath Length (fractional in.)	
A	0
B	1/8"
C	1/4"
D	3/8"
E	1/2"
F	5/8"
G	3/4"
H	7/8"



Option "19"
High temp ceramic potting

SOUTHWEST HEATER AND CONTROLS