



## Thermocouple Technology, Inc.

### Series F

Flanged Series - Manufacturing Standard

Valid only for Overall Length "L" maximum of 42" and/or one-piece construction barstock stems.

### SEC. I Tolerances

#### DWG

<u>KEY</u>	<u>DESCRIPTION</u>	<u>STANDARD TOLERANCE</u>
A	Bore Depth	+.030"/- .000" Depth; W-Shaped bore bottom
B	Bore Diameter	+.007"/- .005"
C	Chamfer	Nominal
D	Diameter	Option 1) Barstock o.d.: Mill Standard tolerance/- .032" Option 2) Machined o.d.: +/- .015"
E	Tip Thickness	+/- .063"
F	Flg. Thickness	Post-fabricated ANSI B16.5 flanges: Mill Standard/- .063"
G	GTAW Weld	ASME Sec. IX, B&PVC – certified welders
I	Instrument Conn.	ANSI B1.20.1
J	Radius	Nominal
K	Head Length	Nominal – See "A", "E" & "U" for accumulated length tolerances.
L	Overall Length	Nominal – See "A", "E" & "U" for accumulated length tolerances.
P	Proc. Conn.	ANSI B16.5 Pre-fabricated flange
Q	Shank Diameter(s)	+/- .010"
T	Lag ext. Length	Nominal – See "A", "E" & "U" for accumulated length tolerances.
U	Insertion Length	+/- .063"
V	Tapered Length	+/- .500" when "U" length is longer than 16"
Y	Reduced Length	Nominal

### Sec. II – Manufacturer's Standard Specifications

1. Bore Concentricity: .0015" per inch / maximum T.I.R. .035".
2. Instrument connection: 1/2" NPT compliant to ANSI B1.20.1. Standard dimensions: Entrance bevel 60° +/- 2°. I.D. .718" +/- .005" x 1.00" +/- .015" depth with 59° nominal drill bottom. Tap 1/2" NPT threads x .875" nominal depth. Tolerance: ANSI compliant 3 full plug gauge turns minimum x 4.5 turns maximum. \*Note: Request alternate thread dimensions for any series with a "K" length of <1.00".
3. Materials: In compliance with the applicable governing National Standard such as ASTM, ASME, AWS, etc.
4. Post-Fabricated Flange dimensions: Reference document titled Series PFD.
5. Stamping: 3/32" minimum height characters indicating material grade & traceability code. TTEC reserves the option to relocate standard stamp locations if there are surface area constraints.
6. Surface Finish: 16-32 RMS over 85% of the "U" length- the remainder of the stem area is belt-sanded. Surface finish varies for "high carbon/low alloy" materials due to inherent rusting characteristics. Gasket surface finishes for flanges/connectors are provided on document Series PFD.
7. Tapered length "V": Full length taper is provided for U16" or less. Longer lengths are tapered over the last 16" as a standard. A full length taper for all lengths is available for an additional charge.
8. Welding: Request the applicable welding specification.