

Bar stock thermowell with flange connection

Model : A610, A611, A612, A623

Spec. sheet no. AD06-03

CRN

Service intended

Temperature sensors or indicating type temperature gauges are not directly inserted into the process pipe, unless these are used to measure the outside temperature of process pipe, instead, these are used with thermowells. By using thermowells, sensors and gauges will not interfere with the process line operation, and the users are able to perform the maintenance procedure of the process line more easily. These types are most common bar type, and these are installed onto the process line by attaching a flange. It is useful in the process line where a high pressure and a fast current exist. A623 is manufactured with a Full Penetration welding procedure so it can be used in a high pressure gas line.



Standard features

Selection of thermowell

■ Material

In general, the thermowell material chosen for the installation is governed mainly by the corrosion condition the thermowell will face. Recommended material for various services are given in the corrosion table.

Occasionally, the material consideration is one of strength rather than corrosion. For example, a stainless steel thermowell may be required for a high pressure water service where otherwise a brass thermowell would be satisfactory from a corrosion standpoint.

■ Insertion

The distance from the end of the well to the underside of the thread or other connection means (Designated as "U") is the insertion length.

■ Tapered or straight type

Tapered type thermowells provide greater stiffness for the same sensitivity. The higher strength to weight ratio gives these thermowells higher natural frequency than for equivalent length straight type thermowells, thus permitting operation at higher fluid velocity.

■ Bore size

Almost any installation uses several type of temperature measuring instruments.

The selection of a standard bore diameter can produce extreme flexibility within the plant.

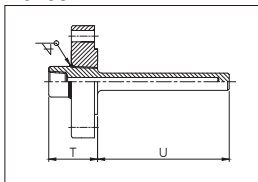
■ Option

Wake frequency calculations in accordance with ASME PTC 19.3

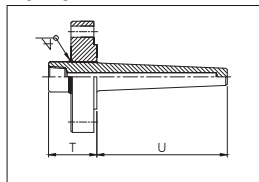
WISE Inc. offers this as an engineering service.

Structure

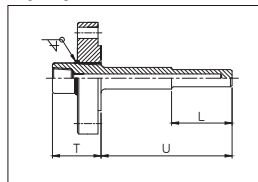
A6100



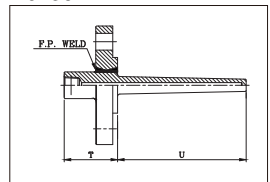
A6110



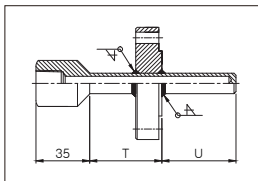
A6120



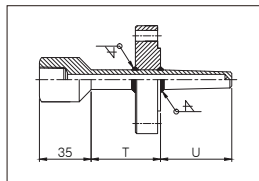
A6230



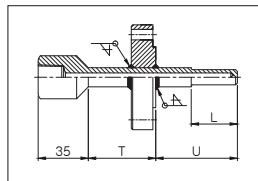
A6101



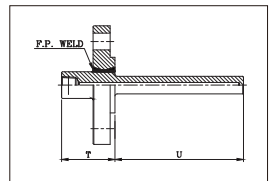
A6111



A6121



A6231



1. Base model

- A6100** Straight bar stock (Flanged connection)
- A6101** Straight bar stock
(Flanged connection with extension)
- A6110** Tapered bar stock (Flanged connection)
- A6111** Tapered bar stock
(Flanged connection with extension)
- A6120** Stepped bar stock (Flanged connection)
- A6121** Stepped bar stock
(Flanged connection with extension)
- A6230** Tapered bar stock (F.P welding)
- A6231** Straight bar stock (F.P welding)

2. Material of well

AX S25C	MX Titanium
BX 304SS	NX Tantalum clad
CX 316SS	OX A182F316
DX 304L SS	PX 304SS + PTFE lining
EX 316L SS	QX 316SS + PTFE lining
FX 310SS	RX 304L SS + PTFE coating
GX 321SS	SX 316L SS + PTFE coating
HX 446SS	TX Incoloy-800
IX A182F304	VX A182F91
JX Inconel 600	WX A105
KX Hastelloy-C	YX A182F11
LX Monel	Z3 A182F321
	ZX Others

Note : Not available for flange
N code is not available for A611, A612

3. Material of flange

AX S25C	MX Titanium
BX 304SS	NX Tantalum clad
CX 316SS	OX A182F316
DX 304L SS	PX 304SS + PTFE lining
EX 316L SS	QX 316SS + PTFE lining
FX 310SS	RX 304L SS + PTFE coating
GX 321SS	SX 316L SS + PTFE coating
HX 446SS	TX Incoloy-800
IX A182F304	VX A182F91
JX Inconel 600	WX A105
KX Hastelloy-C	YX A182F11
LX Monel	Z3 A182F321
	ZX Others

Note : Not available for flange
N code is not available for A611, A612

4. Internal connection

- 0** ½" NPT
- 1** ½" PT
- 2** ½" PF

1	2	3	4	5	6	7	8	9	10
A6100	AX	BX	0	A0	A(1)	DB	1	1	1

Sample ordering code

5. Tip outer diameter / Bore size (mm)

A0 14 / 7	C0 17 / 7	D1 19 / 9
A1 14 / 9	C1 17 / 9	D2 19 / 10
B0 16 / 7	C2 17 / 10	D3 19 / 12
B1 16 / 9	C3 17 / 12	D4 21 / 10
B2 16 / 10	D0 19 / 7	

6. Flange size

A(1) ½" (15A)	E 1½" (40A)	H 3" (80A)
B(1) ¾" (20A)	F 2" (50A)	I 4" (100A)
C 1" (25A)	G 2½" (65A)	Z Other
D 1¼" (32A)		

7. Process connection type

DA PN10 RF	AW B16.5 class 900 RTJ
DB PN16 RF	AT B16.5 class 1,500 RF
AE B16.5 class 150 FF	AX B16.5 class 1,500 RTJ
AC B16.5 class 150 RF	AU B16.5 class 2,500 RF
AD B16.5 class 150 RFSF	AY B16.5 class 2,500 RTJ
AH B16.5 class 300 FF	KN 10K FF
AF B16.5 class 300 RF	KL 10K RF
AG B16.5 class 300 RFSF	KM 10K RFSF
DI PN25 RF	KR 20K FF
AJ B16.5 class 600 RF	KP 20K RF
AK B16.5 class 600 RFSF	KQ 20K RFSF
AV B16.5 class 600 RTJ	DO PN40 RF
AS B16.5 class 900 RF	ZZ Other

8. Insertion length ("U") length (mm)

0 80	6 350	D 800
1 100	7 400	E 900
2 150	8 450	F 1,000
3 200	A 500	Z Other
4 250	B 600	
5 300	C 700	

Note : Please choose a code of next higher length if applicable length is not.
Actual length shall be specified.

9. "T" length (mm)

- 0** 45
 - 1** 50 below
 - 2** 50 above
- Note : Actual length shall be specified.

10. Option

- 0** None
- 1** Plug and chain (304SS)
- 2** Plug and chain (316SS)
- 5** Velocity color
- 6** Velocity color with plug and chain

Note : Actual length shall be specified.