

Bar stock thermowell with flange connection

Model : A610, A611, A612, A623

Spec. sheet no. AD06-03

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.

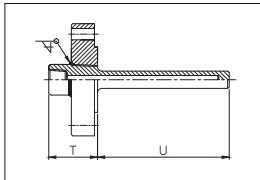
■ Option

Wake frequency calculations in accordance with ASME PTC 19.3

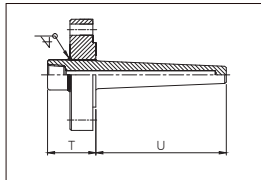
WISE Inc. offers this as an engineering service.

Structure

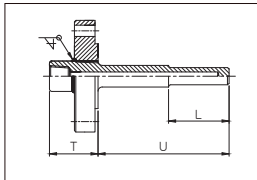
A6100



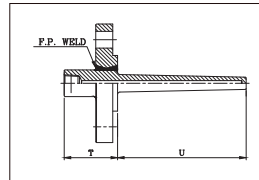
A6110



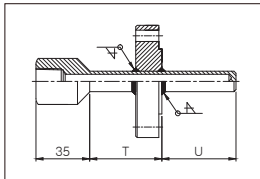
A6120



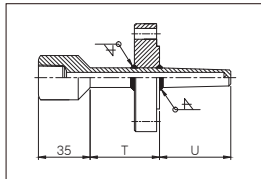
A6230



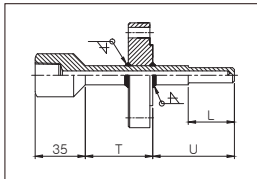
A6101



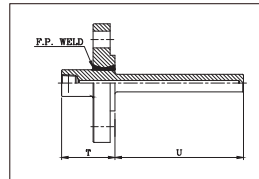
A6111



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 and material of flange

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

Note : Not available for flange

N code is not available for A611, A612

3. Internal connection

0	½" NPT
1	½" PT
2	½" PF

4. Tip outer diameter / Bore size (mm)

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

5. Flange size

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

6. Process connection type

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

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

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

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

8. Option

0	None
1	Plug and chain (304SS)
2	Plug and chain (316SS)

Note : Actual length shall be specified.

1	2	3	4	5	6	7	8
A6100	AX	0	A0	A	DB	1	1

Sample
ordering code