

Close end tube (Pipe) type thermowell

Model : A500, A510 series

Spec. sheet no. AD05-01

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.

A500 and A510 Series are either pipe or tube with one end is sealed. These thermowells are used in the process pipe where a very slow current is exist or in a container, and its length can be vary.

* Note. Depending on the material and U-length, the appearance of the connector may change.



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.

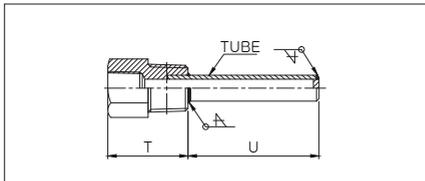
■ Bore size

Almost any installation uses several types of temperature measuring instruments.

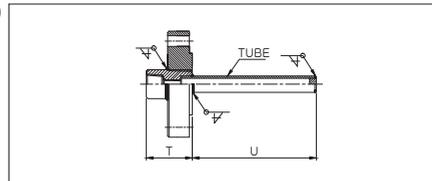
The selection of a standard bore diameter can produce extreme flexibility within the plant.

Structure

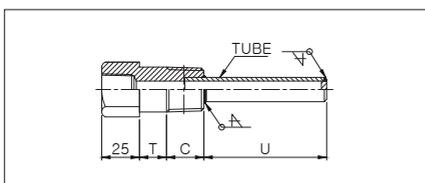
A5000



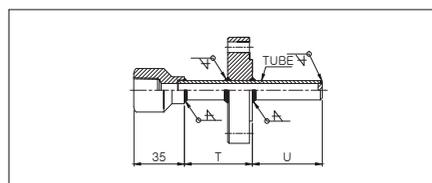
A5100



A5001



A5101



1. Base model

- A5000** Thread connection
- A5001** Thread connection with extension
- A5100** Flange connection
- A5101** Flange connection with extension

2. Material of well

AX S25C	PX 304SS + PTFE lining
BX 304SS	QX 316SS + PTFE lining
DX 304L SS	RX 304L SS + PTFE coating
EX 316L SS	SX 316L SS + PTFE coating
FX 310SS	TX Incoloy-800
GX 321SS	1X SSA-S
HX 446SS	WX A106
JX Inconel 600	3X GK-Sic
KX Hastelloy-C	YX A335P11
LX Monel	ZX Others
MX Titanium	

3. Material of flange

AX S25C	MX Titanium
BX 304SS	PX 304SS + PTFE lining
CX 316SS	QX 316SS + PTFE lining
DX 304L SS	RX 304L SS + PTFE coating
EX 316L SS	SX 316L SS + PTFE coating
FX 310SS	TX Incoloy-800
GX 321SS	WX A105
JX Inconel 600	YX A182F11
KX Hastelloy-C	ZX Others
LX Monel	

Note. Please give XX to 8,9th character for A500 series

4. Internal connection

0 ½" NPT	3 ¾" NPT
1 ½" PT	4 ¾" PF
2 ½" PF	5 ¾" PT

5. Pipe (Tube) outer diameter (mm)

A 14	G 15	N 21
B 16	H 12	O 25
C 17	I 13.8	P 30
D 19	J 10	Q 40
E 21.7	K 12.7	R 20
F 17.3	L 13	S 21.3

6. Pipe (Tube) thickness (mm)

A 3.7	E 2.3	J 0.7
B 3.2	F 2.0	K 2.5
C 3.0	G 1.5	L 5.0
D 2.8	H 1.0	

7. Process connection size

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

Note. Available for flange connection only

8. Process connection type

AZ S.W.	KM 10K RFSF
AA NPT	KN 10K FF
AB PT	DA PN10 RF
PF PF	DB PN16 RF
AC 150 Lb RF	DI PN25 RF
AD 150 Lb RFSF	DO PN40 RF
AE 150 Lb FF	KA 5K RF
AF 300 Lb RF	KT 5K FF
AG 300 Lb RFSF	KP 20K RF
AH 300 Lb FF	KQ 20K RFSF
AJ 600 Lb RF	KR 20K FF
AK 600 Lb RFSF	ZZ Other
KL 10K RF	

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

0 80	B 600	M 4,000
1 100	C 700	N 5,000
2 150	D 800	P 6,000
3 200	E 900	Q 7,000
4 250	F 1,000	R 8,000
5 300	G 1,500	S 9,000
6 350	H 2,000	T 10,000
7 400	J 2,500	Z Other
8 450	K 3,000	
A 500	L 3,500	

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

10. "T" length (mm)

0 45
1 50 below
2 50 above

Note : Actual length shall be specified.

11. Option

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

1	2	3	4	5	6	7	8	9	10	11	Sample ordering code
A5000	AX	AX	0	A	A	A(1)	AZ	0	0	1	