

Thermowells are used for protecting temperature sensing elements from excessive pressure, solid particles in suspension and aggressive fluids. Another advantage of thermowell is possibility to remove the temperature sensing instruments without any risk of affecting the tightness of enclosure and without stopping the process system.



Selection of thermowell

1. Material
 - In general, thermowell material chosen for the installation is covered mainly by the corrosion conditions it will face.
 - Recommended materials for various services are given in the Corrosion Table.
 - Occasionally, the material consideration is one of strength rather than corrosion. For example, Stainless Steel Thermowell may request for high pressure water service where otherwise a Brass Thermowell would be satisfactory from corrosion standpoint.
2. Insertion
 - The distance from the end of the well point should be inside of the thread, or other connection means, (designed as "U" Length) is the insertion length.
3. Bore size
 - The selection of a standard bore diameter can produce extreme flexibility within the plant.
4. Tapper or straight type
 - Tapper type thermowell provide greater stiffness for the same sensitivity. The higher strength to weight ratio gives these thermowells higher frequency than for equivalent straight type thermowell, thus permitting operation at higher fluid velocity.

Thermowell Ordering Information

Model

Refer to table

Material

Refer to table

Bore Size Diameter (ID / OD)

Insertion Length ("U")

Extension Length ("T")

Connection Type

1/2" BSPT

Example of Order

Model

A5000

Material

SS316

ID / OD

11 / 14

"U" Length

6"

"T" Length

2"

Connection Type

1/2" BSPT

UNIJIN® ACCESSORIES

A5001 RED POINTER

Red pointer works as a reminder to indicate the maximum pressure or the optimum pressure of process.

Window	Acrylic
Pointer	Aluminum alloy, Red painted



A5002 MAXIMUM INDICATION POINTER

Maximum indication pointer follows the regular pointer on increasing pressure and remains at the highest point until it is reset by a knob on the front of the window.

Window	Glass
Pointer	Aluminum alloy, Red painted



A5003 MICRO ADJUSTABLE POINTER

Allow for precise pointer adjustments when the span is incorrect position. Micro adjustable pointer allows the span to be adjusted to any position along the gauge.

Window	Glass
Pointer	Aluminum alloy, Black painted



Sunshade MODEL : A090 Series

WISE®

Service intended

Sunshade provides protection for instrument preventing instrument calibration drift due to temperature changes caused by solar radiation. sunshade mounts to a typical 2 inch stanchion pipe and can be removed easily for full instrument access.

Application

Simple shielding of enclosures, instruments and fittings providing protection against

- Sun light
- Dirt accumulation
- Exposure to atmospheric conditions

Features

- Reduces the surface temperature of instruments or enclosure
- Minimizes instrument drift
- Operating Temperature : -15°C~100°C
- UV coating



ACCESSORIES FOR PRESSURE GAUGE

Ordering information

BASE MODEL - A090 (1st thru 4th characters)

5th ~9th Character		10th Character		11th Character		12th Character	
CODE	Sunshade W×D×H(mm)	CODE	Sunshade MAT'L	CODE	Gauge Bracket	CODE	Gauge Bracket MAT'L
SS230	230×370×125	1	GRP	1	Ø90×120ℓ	1	Steel with Galvanized
SS410	410×350×170	2	FRP	2	Ø93×120ℓ	2	316SS
SS000	Other	3	Other	3	Ø103×120ℓ	3	Other
				4	Ø130×120ℓ		
				5	Other		

13th Character		14th Character		15th Character	
CODE	Mounting Position	CODE	Pipe Stanchion	CODE	Mounting Bracket
1	Back	1	PS	1	PB
2	Top	0	None	2	UB
				0	None

Instrument valve

Model : A080

WISE®

Service intended

It is used for switching flow between one common connection and the other two connections.
The instrument valve is applied to the pressure gauge and pressure transmitter.



ACCESSORIES FOR PRESSURE GAUGE

Ordering information

BASE MODEL - 1st thru 4th characters

A080: Instrument valve

MAX. STATIC PRESSURE UP TO 25MPa

5th Character		6th Character		7th Character		8th Character	
Code	Type	Code	Gauge Connection Type	Code	Gauge Connection Size	Code	Process Connection Type
S	Isolation valve	W	NPT(F)	2	1/4"	W	NPT(F)
W	2 way manifold	M	NPT(M)	4	1/2"	M	NPT(M)
		Z	Other	9	Other	Z	Other

9th Character		10th Character		11th Character		12th Character	
Code	Process Connection Size	Code	Packing Material	Code	Bleed & Plug	Code	Bleed & Plug Size
2	1/4"	T	PTFE	A	NONE	1	1/4"NPT(F)
4	1/2"	G	Graphite	B	Bleed	2	1/2"NPT(F)
				C	Bleed with Plug	3	No Bleed
						4	M8 screw
Z	Other					Z	Other

13th Character		14th Character		15th Character	
Code	Material	Code	Unused	Code	Unused
A	CS	X	All T Bar	O	
B	316SS				
C	316LSS				
D	MONEL				
E	INCONEL				
Z	Other				

Gauge protector Model : A070

WISE®

Service intended

It is used for protecting the gauges from over pressure.

The gauge protector close at a adjusted setpoint pressure.

Ordering information

BASE MODEL - 1st thru 4th characters

Accuracy

±10% in normal operation (F·S 5~10%내외)

A070: Gauge protector

MAX. STATIC PRESSURE UP TO 25MPa



ACCESSORIES FOR PRESSURE GAUGE

5th Character		6th Character		7th Character		8th Character	
Code	Pressure	Code	Material	Code	Gauge Connection Size	Code	Gauge Connection Type
P	3 ~ 10kPa	D	316SS	2	1/2"	C	NPT"(F)
L	15 ~ 50kPa	F	316LSS				
N	70kPa ~ 0.2MPa	G	Monel				
H	0.3 ~ 4MPa						
U	5 ~ 25MPa						
		Z	Other	9	Other	Z	Other

9th Character		10th Character		11th~15th Character	
Code	Precess Connection Size	Code	Precess Connection Size	Code	Unused Characters
D	1/2"	J	NPT"(M)	A0000	
Z	Other	9	Other		

Standard features

MODEL NO.	TYPE	SET PRESSURE	CONNECTION
A070ND2CDJA0000	Medium Press	70kPa ~ 0.2MPa	1/2NPT(F)X1/2NPT(M)

Condensate pot Model : A060

WISE®

Service intended

It is used for protecting the pressure instruments from the effect of hot process media like steam.
It is used for the same purpose as SYPHON TUBE and mainly, is provided for Pressure Transmitter or Differential Pressure Transmitter.



ACCESSORIES FOR PRESSURE GAUGE

Ordering information

BASE MODEL - 1st thru 4th characters
A060 : CONDENSATE POT

5th Character		6th Character		7th Character		8th Character	
Code	POT Type	Code	Material	Code	Gauge Connection Size	Code	Gauge Connection Type
A	Flat Type 3" Sch40	B	S25C	2	1/2"	B	PT(F)
E	Flat Type 3" Sch80	C	304SS			C	NPT(F)
F	Flat Type 3" Sch160	D	316SS				
G	Globe Type 3" Sch40	F	316LSS				
H	Globe Type 3" Sch80						
J	Globe Type 3" Sch160						
		Z	Other	9	Other	Z	Other

9th Character		10th Character		11th thru 15th Character	
Code	Process Connection Size	Code	Process Connection Size	Code	Unused Character
D	1/2"	B	PT(F)	A0000	
		C	NPT(F)		
Z	Other	Z	Other		

A060EC2CDCA0000 SAMPLE ORDERING NUMBER

Snubber Model : A050

WISE®

Service intended

Used for suppressing the effect of pressure pulse and pressure spike. It features an adjustable needle valve to enable to restrict flow as operating conditions may demand.



ACCESSORIES FOR PRESSURE GAUGE

Ordering information

BASE MODEL - 1st thru 4th characters

A050 : SNUBBER

MAX. STATIC PRESSURE UP TO 35MPa

5th Character		6th Character		7th Character		8th Character	
Code	Unused Character	Code	Material	Code	Gauge Connection Size	Code	Gauge Connection Type
A		D	316SS	0	1/4"	A	PF(F)
		F	316LSS	1	3/8"	B	PT(F)
				2	1/2"	C	NPT(F)
		Z	Other	9	Other	Z	Other

9th Character		10th Character		11th thru 15th Character	
Code	Process Connection Size	Code	Process Connection Size	Code	Unused Character
C	3/8"	G	PF(M)	A0000	
D	1/2"	H	PT(M)		
		J	NPT(M)		
Z	Other	Z	Other		

A050AD2BDJA0000 SAMPLE ORDERING NUMBER

Pulsation dampener

Model : A040

WISE®

Service intended

It is used for reducing the pressure pulsation flowing from pump or air compressor in order to facilitate pressure gauge reading.



ACCESSORIES FOR PRESSURE GAUGE

Ordering information

BASE MODEL - 1st thru 4th characters

A040 : PULSATION DAMPENER

MAX STATIC PRESSURE UP TO 25MPa

5th Character		6th Character		7th Character		8th Character	
Code	Unused Character	Code	Material	Code	Gauge Connection Size	Code	Gauge Connection Type
A		D	316SS	0	1/4"	A	PF(F)
		F	316LSS	1	3/8"	B	PT(F)
				2	1/2"	C	NPT(F)
		Z	Other	9	Other	Z	Other

9th Character		10th Character		11th thru 15th Character	
Code	Process Connection Size	Code	Process Connection Size	Code	Unused Character
B	1/4"	G	PF(M)	A0000	
C	3/8"	H	PT(M)		
D	1/2"	J	NPT(M)		
Z	Other	Z	Other		

A040AC1BDJA0000 SAMPLE ORDERING NUMBER

Syphon tube Model : A030

WISE®

Service intended

It is used for protecting the pressure gauge from the effect of hot process media like steam and also reducing the effect of rapid pressure surges.



ACCESSORIES FOR PRESSURE GAUGE

Ordering information

BASE MODEL - 1st thru 4th characters
A030 : SYPHON TUBE

5th Character		6th Character		7th Character		8th Character		9th Character	
Code	Type	Code	Material	Code	Gauge Connection Size	Code	Gauge Connection Type	Code	Process Connection Size
B	Winding	B	S25C	0	1/4"	A	PF(F)	B	1/4"
C	Pig Tail	C	304SS	1	3/8"	B	PT(F)	C	3/8"
		D	316SS	2	1/2"	C	NPT(F)	D	1/2"
		F	316LSS	3	3/4"	H	NPS(F)	E	3/4"
		E	321SS					F	1"
		H	HAST-C	6	1"			Q	Flange
		I	INCOLOY	800					
		Z	Other	9	Other	Z	Other	Z	Other

10th Character		11th Character		12th Character		13th thru 15th Characters	
Code	Process Connection Type	Code	Flange Size	Code	Flange Rating	Code	Pipe Schedule
C	NPT(F)	A	N/A	A	N/A	000	3/8" SCH40(17.3 ϕ \times 2.3t)
G	PF(M)	D	1/2"(15A)	B	ANSI 150# RF	100	3/8" SCH80(17.3 ϕ \times 3.2t)
H	PT(M)	E	3/4"(20A)	C	ANSI 150# RFSF	200	1/2" SCH40(21.7 ϕ \times 2.8t)
J	NPT(M)	J	2" (50A)	D	ANSI 300# RF	300	1/2" SCH80(21.7 ϕ \times 3.7t)
M	S.W(F)	F	1" (25A)	E	ANSI 300# FF	400	3/4" SCH40(27.2 ϕ \times 2.9t)
N	S.W(M)	G	1 1/4"(32A)	F	ANSI 600# RF	500	3/4" SCH80(27.2 ϕ \times 3.9t)
P	Pipe Welding	H	1 1/2"(40A)	G	ANSI 600# RFSF	600	1/2" SCH160(21.7 ϕ \times 4.7t)
Q	Flange		2" (50A)	H	JIS 10K RF		
				I	JIS 10K FF		
				J	JIS 10K RFSF		
				K	JIS 20K RF		
				L	JIS 20K FF		
				M	JIS 20K RFSF		
				N	JIS 30K RF		
				O	JIS 30K FF		
				P	JIS 30K RFSF		
				Q	JIS 40K RF		
				R	JIS 40K FF		
				S	JIS 40K RFSF		
				T			
				U			
				V			
				W			
				X			
Z	Other	Z	Other	Z	Other		

A030BC1CDPAA000 SAMPLE ORDERING NUMBER

Gauge union Model : A020

WISE®

Service intended

It is used for positive sealing while the pressure gauge may be directed into any directions



ACCESSORIES FOR PRESSURE GAUGE

Ordering information

BASE MODEL - 1st thru 4th characters
A020 : GAUGE UNION

5th Character		6th Character		7th Character		8th Character		9th Character	
Code	Union Type	Code	Material	Code	Gauge Connection Size	Code	Gauge Connection Type	Code	Process Connection Size
N	Pipe Welding	B	S25C	0	1/4"	A	PF(F)	A	1/8"(10.5mm)
P	PF(M)	C	304SS	1	3/8"	B	PT(F)	C	3/8"
Q	PT(M)	D	316SS	2	1/2"	C	NPT(F)	D	1/2"
R	Socket Welding	F	316LSS	3	1/8"			E	3/4"
S	Boss	G	Monel					Q	Flange
T	Flange	H	Hastelloy-C						
		Z	Other	9	Other	Z	Other	Z	Other

10th Character		11th Character		12th Character		13th thru 15th Character	
Code	Process Connection Type	Code	Flange Size	Code	Flange Rating	Code	Pipe Length
C	NPT(F)	A	N/A	A	N/A	000	3/8" SCH 40(1.73" x 2.31), 100mm
G	PF(M)	D	1/2"(15A)	B	ANSI 150# RF	010	3/8" SCH 80(1.73" x 3.21), 100mm
H	PT(M)	E	3/4"(20A)	C	ANSI 150# FF	020	1/2" SCH 40(2.17" x 2.81), 100mm
J	NPT(M)	F	1" (25A)	D	ANSI 150# RFSF	030	1/2" SCH 80(2.17" x 3.71), 100mm
M	S.W(F)	G	1 1/4"(32A)	E	ANSI 300# RF		
N	S.W(M)	H	1 1/2"(40A)	F	ANSI 300# FF		
P	Pipe Welding	J	2" (50A)	G	ANSI 300# RFSF		
Q	Flange			H	ANSI 600# RF		
				J	ANSI 600# FF		
				K	ANSI 600# RFSF		
				L	JIS 10K RF		
				M	JIS 10K FF		
				N	JIS 10K RFSF		
				P	JIS 20K RF		
				Q	JIS 20K FF		
				R	JIS 20K RFSF		
				S	JIS 30K RF		
				T	JIS 30K FF		
				U	JIS 30K RFSF		
Z	Other	Z	Other	Z	Other		

Union Model : A010

WISE®

Service intended

It is used for adapting size of the pressure tap which is different with the size of the pressure instrument thread.



ACCESSORIES FOR PRESSURE GAUGE

Ordering information

BASE MODEL - 1st thru 4th characters

A010 : UNION

5th Character		6th Character		7th Character		8th Character	
Code	Unused Character	Code	Material	Code	Gauge Connection Size	Code	Gauge Connection Type
A		A	Brass	0	1/4"	A	PF(F)
		C	304SS	1	3/8"	B	PT(F)
		D	316SS	2	1/2"	C	NPT(F)
		F	316LSS	3	1/8"	D	UNF
		G	304LSS	4	7/16"	E	NPT(M)
		V	PVC	5	3/4"		
		Z	Other	9	Other	Z	Other

9th Character		10th Character		11th thru 15th Character	
Code	Process Connection Size	Code	Process Connection Size	Code	Unused Character
A	1/8"	G	PF(M)	A0000	With Vent Cock Plug
B	1/4"	H	PT(M)	B0000	
C	3/8"	J	NPT(M)		
D	1/2"	K	UNF		
E	3/4"	N	S.W		
F	1"	C	NPT(F)		
G	7/16"				
Z	Other	Z	Other		

A010AC1BDHA0000 SAMPLE ORDERING NUMBER