THERMOWELLS

OTW10 SERIES GEAR THERMOWELLS

OTW11 Screw Connection
Straight Type Thermowells

OTW12 Screw Connection
Conical Type Thermowells

OTW13 Screw Connection
Stepped Type Thermowells

DEFINITION

Thermowells are protective sheaths used to protect temperature sensors (T / C - R / T) and other temperature sensors (Bimetallic). They are processed from pipes and filled materials. They prevent damage to the sensor from environmental conditions such as high pressure, excessive material speeds and viscosities, chemical and mechanical abrasions. In addition, they provide easy replacement of temperature sensors without interrupting the process in case of failure. They are an excellent solution to protect the process and extend the lifespan of the sensor.

Important criteria in the selection of thermowell;

1 - Maximum operating temperature
2 - Maximum working pressure
3 - Flow rate of the working environment
4 - The density of the working environment
5 - Viscosity of the working environment
6- Predetermined Ordel or other brand thermowell code or details

Ordel Thermowells are classified according to the design of the body. Flat type thermowell is the same length along the whole body length. Conical thermowells have a diameter that gradually decreases along the body length. With this structure, they have a fast response time. Conical thermowells are also preferred in applications with very high output speed.

Stepped thermowells have two different diameter structures based on their body structure. With its low diameter structure close to the measurement point, it has a speed of transition and a fast temperature sensing structure.

Thermowells are usually drilled from solid bars and processed as a whole piece (Barstock). In addition, there are thermowell types produced by welding pipes of various structures to process fittings such as raccord and flange.

ORDEL THREADED THERMOWEL FEATURES and SELECTION CRITERIA

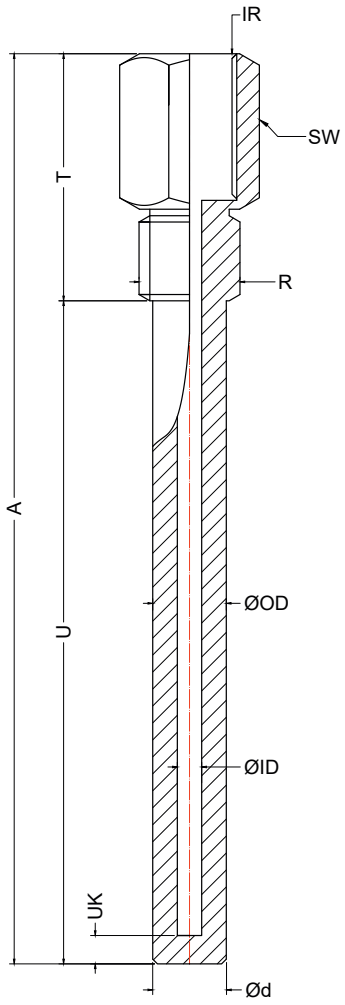
PICTURE NO ;	OTW11, OTW12, OTW13
OTW11	- Screw Connection Flat Type Thermowell
OTW12	- Screw Connection Conical Type Thermowell
OTW13	- Screw Connection Stepped Type Thermowell

STANDARD THERMOVEL FILLED AND PIPE MATERIALS		
ASTM A304 (1.4301)	DIN 1.4749(AISI 446)	INCOLOY-825 (DIN 2.4858)
ASTM A316 Tİ (1.4571)	DIN 1.4828(AISI 309)	HASTELLOY-C4 (DIN 2.4610)
ASTM A316 L (1.4404)	DIN 1.4841(AISI 314)	BRASS MATERIAL
ASTM A310 (1.4845)	DIN 1.7335 (Molibden)	TEFLON
ASTM A321 (1.4541)	INCONEL-600 (DIN 2.4816)	
ASTM A105 (Carbon Steel)	INCONEL-800 (DIN 1.4876)	

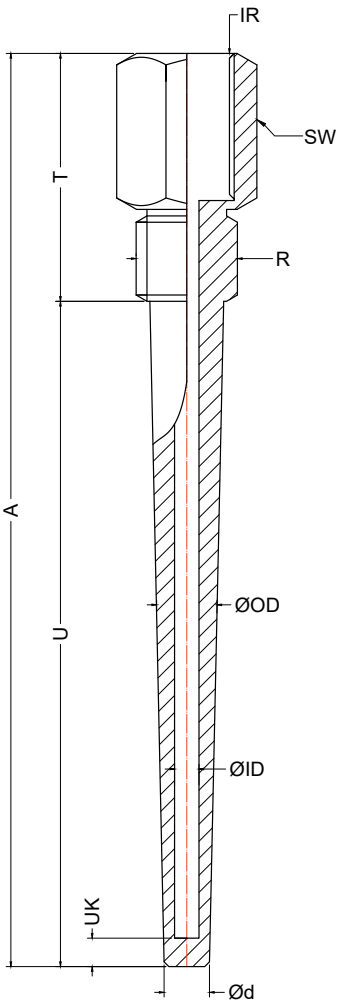
STANDARD HOLE DIAMETERS
3.0 mm
4.0 mm
5.0 mm
6.0 mm
7.0 mm
8.0 mm
9.0 mm
10.0 mm

Note: Ordel thermowells can be produced in desired diameters according to the application other than standard hole diameters. Filled material length is produced up to a maximum of 1100 mm.

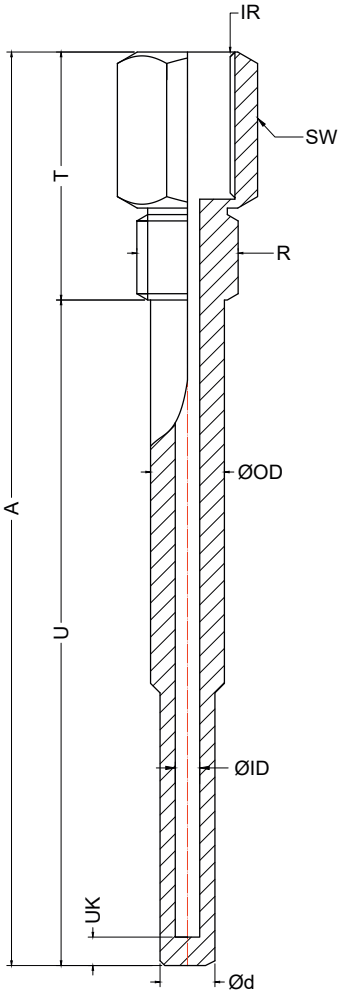
OTW11



OTW12



OTW13



10

ORDEL OTW10 THERMOWELL CODING

Type - Well Material - Body Structure - Hole Diameter - End Diameter - End Thickness - Well Head Length (T) - Immersion Length (U) - Total Length (A) - Sensor Connection - Process Connection - Option

Type

OTW11
OTW12
OTW13

Well Material

	Ordel Code
ASTM A304 (1.4301)	E
ASTM A316Tİ (1.4571)	H
ASTM A316L (1.4404)	B
ASTM A310 (1.4845)	L
ASTM A321 (1.4541)	J
ASTM A105 (Carbon Steel)	G
1.4749 (AISI446)	M
1.4828 (AISI309)	V
1.4841 (AISI314)	L
1.7335 (Molibden)	K
INCONEL-600	N
INCOLOY-800	NX
INCOLOY-825	NY
HASTELLOY-C4	O
BRASS MATL.	U
TEFLON	T

Body Structure

FULL	D
PIPE	B

Hole Diameter

3 mm	03
4 mm	04
5 mm	05
6 mm	06
7 mm	07
8 mm	08
9 mm	09
10 mm	10

End Diameter

for OTW11

15 mm	15
18 mm	18
20 mm	20
26 mm	26

for OTW12

16 mm	16
19 mm	19
22 mm	22
30 mm	30

for OTW13

9 mm	09
12 mm	12
14 mm	14
16 mm	16

End Thickness

	Ordel Code
5 mm	5
6,35 mm	¼"

Note: You can specify other tip thickness sizes.

Well Head Length (T)

Write the length T as T .....
Example: T45

Note: Dimensions are in "mm".

Immersion Length (U)

Write the length U as U .....
Example: U105

Total Length (A)

Write the length A as A .....
Example: A150

Sensor Connection

S½"NPT
S¾"NPT
S1"NPT

Note: Write the other sensor connection dimensions as S ...
Example: S2"NPT

Process Connection

P½"NPT
P¾"NPT
P1"NPT

Note: Write the other process connection dimensions as P ...
Example: P2"NPT

Option

	Ordel Code
Certificate	SF
Plug and Chain	TP
Tag No	TN