



Level



Pressure



Flow



Temperature



Liquid
Analysis



Registration



Systems
Components



Services



Solutions

Technical Information

Omnigrad TA541

Industrial thermowell

Heavy duty - General purpose

From pipe - Threaded or flanged weld type



Application

The TA541 is an industry standard thermowell, manufactured from pipe, with a round extension and is designed for use with resistance and thermocouple thermometers mainly in heavy duty applications.

Benefits at a glance

- The process connection is threaded or flanged weld.
- The thermowell stem shape can be straight or tapered for fast response time.
- The extension and the immersion lengths can be chosen according to process requirements.
- A wide choice of standard pipe sizes, materials and process connection is available; other versions can be ordered according to specification.
- Different grades of flange finishing are also available.

Technical data

Pipe	<ul style="list-style-type: none"> ■ Round extension: Pipe size ■ O.D.: ½" sch. 40/80, ¾ sch. 40/80 ■ Standard insert diameter: 6 mm (0.24 in) ■ Standard material: AISI316/W.1.4401
Connection to thermometer	Threaded: ½" NPT, ¾" NPT, G½", G¾" - male
Process connection	Type: Thread or weld flange <ul style="list-style-type: none"> ■ Thread: ¾" NPT, 1" NPT, 1½" NPT ■ Flange type: ANSI blind, DIN 2527/2526 Form C, UNI6000 Flange material: AISI316, A 105 Flange mounting: double side standard weld
Tip	<ul style="list-style-type: none"> ■ Bottom shape: straight or tapered ■ Bottom thickness: D = 5 mm (0.2 in) for straight tip; D = 6 mm (0.24 in) for tapered tip
Surface finishing	Specification see product information

Mechanical construction

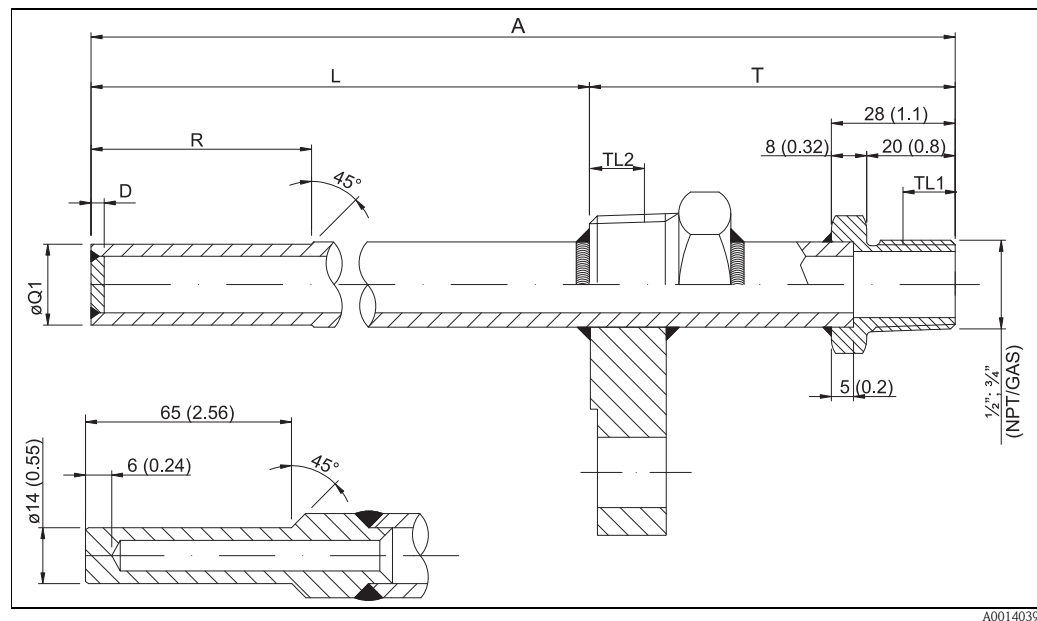


Fig. 1 Thermowell dimensions in mm (in)

Pos.-No.	Description
A	Total length, free selectable
L	Immersion length, free selectable
T	Extension, 95 mm; 120 mm or free selectable
D	Bottom thickness
øQ1	Diameter thermowell tip, specification see product structure
R	Themowell tip length, specification see product structure

Pos.-No.	Description	Length in mm (in)	Thread
TL1	Thread length for thread connection on thermometer	20 (0.8)	G½", G¾"
		8 (0.32)	½" NPT
		8.5 (0.33)	¾" NPT
TL2	Thread length for thread connection on process	8.5 (0.33)	¾" NPT
		10 (0.4)	1" NPT
		10.5 (0.41)	1½" NPT

Ordering information

Product structure

This information provides an overview of the order options available. The information is not exhaustive, however, and may not be fully up to date. **More detailed** information is available from your local Endress+Hauser representative.

TA541-	Heavy duty thermowell - General purpose - From pipe - Threaded or weld flange type		
	Thermometer Connection		
	1	Thread NPT	
	2	Thread GAS	
	Shape Q1; R		
	A	0 mm; 0 mm; straight	
	B	20 mm; 100 mm	
	C	0 mm; 0 mm; round	
	D	14 mm; 65 mm	
	Extension T		
	1	95 mm	
	3	120 mm	
	9 mm, as specified	
	Immersion length L		
	9 mm, as specified	
	Total length A		
	Y mm, as specified	
	Diameter; material		
	TC	½" sch.40; 316	
	UC	½" sch.80; 316	
	VC	¾" sch.40; 316	
	WC	¾" sch.80; 316	
	Process connection		
	AA	Not needed	
	AB	Flange 1"ANSI 150 FF BL; B 16.5;JPI;316	
	AC	Flange ANSI 1" 150lbs RF A105	
	AD	Flange 1"ANSI 300 FF BL;B 16.5;JPI;316	
	AE	Flange ANSI 1" 300lbs RF A105	
	AF	Flange ANSI 1" 600lbs RF SS316	
	AG	Flange ANSI 1" 600lbs RF A105	
	AH	Flange 1-½" ANSI 150 FF BL; B 16.5; JPI; 316	
	AJ	Flange ANSI 1½" 150lbs RF A105	
	AK	Flange 1-½" ANSI 300 FF BL; B 16.5; JPI; 316	
	AL	Flange ANSI 1½" 300lbs RF A105	
	AM	Flange 1-½" ANSI 600 RF; 316	
	AN	Flange ANSI 1½" 600lbs RF A105	
	AP	Flange ANSI 1½" 600lbs RTJ SS316	
	AQ	Flange ANSI 1½" 600lbs RTJ A105	
	AV	Flange 2" ANSI 300 RF; 316	
	AW	Flange ANSI 2" 300lbs RF A105	
	AX	Flange 2" ANSI 300 RTJ; 316	
	AZ	Flange ANSI 2" 300lbs RTJ A105	
	BA	Flange ANSI 2" 600lbs RF SS316	

										Process connection		
										BB	Flange ANSI 2" 600lbs RF A105	
										BC	Flange ANSI 2" 600lbs RTJ SS316	
										BD	Flange ANSI 2" 600lbs RTJ A105	
										BE	Flange ANSI 1-1/2" ANSI 300 RTJ; 316	
										BF	Flange ANSI 1 1/2" 300lbs RTJ A105	
										EA	Flange DN25 PN16; 316L	
										EB	Flange DN25 PN16 C CS	
										EC	Flange DN25 PN40; A105	
										ED	Flange DN25 PN40 C CS	
										EE	Flange DN40 PN40; 316L	
										EF	Flange DN40 PN40 C CS	
										EG	Flange DN50 PN40; 316L	
										EH	Flange DN50 PN40 C CS	
										GA	DN25 PN16 UNI6092/29-6093/29 SS316	
										GB	DN25 PN16 UNI6092/29-6093/29 A105	
										GC	DN25 PN40 UNI6094/29-6095/29 SS316	
										GD	DN25 PN40 UNI6094/29-6095/29 A105	
										GE	DN40 PN40 UNI6094/29-6095/29 SS316	
										GF	DN40 PN40 UNI6094/29-6095/29 A105	
										GG	DN50 PN40 UNI6094/29-6095/29 SS316	
										GH	DN50 PN40 UNI6094/29-6095/29 A105	
										PB	Thread 3/4" NPT-M	
										PC	Thread 1" NPT-M	
										PD	1 1/2" NPT mounting bushing, SS316	
										Flange finishing		
										1	Not needed	
										2	ASME/ANSI	
										5	Rz160 DIN 2526	
										6	125 AARH (UNI)	
										Safety plug + chain		
										A	Not needed	
										B	Material 316L	
										Additional option		
										0	Not needed	
										1	Special version, to be specified	
TA541-												⇒ Order code

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