Series 445L

Standard Threaded Well for Industrial Glass Thermometers

Application:

Fits liquid-in-glass thermometers made to S.A.M.A. standards. Tapered bore is made 0.008" oversize to eliminate possibility of thermometer bulb expanding into the well, thus preventing removal.

Connection Size:

1 NPT and 1 NPT are standard. Other thread sizes are available upon request.

Materials:

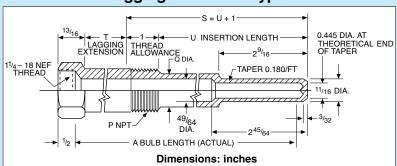
Carbon Steel (C-1018); Brass (ASTM B-16), A.I.S.I. 304, A.I.S.I. 316, Monel®. Many other materials available upon request.

Additional Designs:

Other designs of wells to fit this class of thermometer are available. These include socket weld, heavy duty and flanged types.



Series 445L—Lagging Extension Type



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Ext Thread P	Model Number	Nom Bulb Length	Lag Bulb Ext Length T A		Insert Length U	Shank Diameter Q							
¾ NPT	3/4-445L-S6E-(*) 3/4-445L-S9E-(*) 3/4-445L-S12E-(*) 3/4-445L-S18E-(*) 3/4-445L-S24E-(*)	6 9 12 18 24	2½ 3 3 3 3	6½ 9½ 12½ 18½ 24½	2%6 5%6 8%6 14%6 20%6	7/8 7/8 7/8 7/8							
1 NPT	1-445L-S6E-(*)6 1-445L-S9E-(*) 1-445L-S12E-(*) 1-445L-S18E-(*) 1-445L-S24E-(*)	2½ 9 12 18 24	6 ¹ / ₈ 3 3 3 3	2% 9% 12% 18% 24%	5½6 8½6 14½6 20½6	1 1 1 1							

^{*} Specify material type "304SS" for 304 Stainless Steel, "316SS" for 316 Stainless Steel, "CS" for Carbon Steel or "BRASS" for brass. PFA coating available, see omega.com.

Ordering Example: 3/4-445L-S6E-304SS, 304 stainless steel thermowell with $^3\!\!/\!\!4$ NPT external thread, 0.445" internal diameter for a glass thermometer, $2^1\!\!/\!\!2$ " Lagging Extension, $2^9\!\!/\!\!6$ ", insertion length and a 6" nominal bulb length.

For Assistance in Choosing Head and Well Assemblies, See guide at omega.com. These wells are compatible with OMEGA® NB1, NB2; PR-12, PR-14, and NPT-style probes, as well as DialTemp™ Thermometers.

Maximum Fluid Velocity—feet per second

See Introduction to Thermowells, Section on Velocity, ar omega.com

Well		Insertion Length — "U"							
Type	Material	2 %6	5 1/16	81/16	111/16	141/16	17 1/16	201/16	231/16
¾"-445S	Brass	259 (52.3)	142 (26.4)	55.8 (16.6)	29.8 (12.1)	18.4 (9.5)	12.5 (7.8)	9.0 (6.7)	6.8
and	Carbon Steel	352 (94.6)	198 (48.0)	77.5 (30.1)	41.4 (22.0)	27.8 (17.3)	17.3 (14.2)	12.5 (12.1)	9.5
¾"-445L	A.I.S.I. 304 & 316	382 (131)	206 (66.3)	80.9 (41.7)	43.2 (30.2)	26.6 (24.0)	18.1	13.1	9.9
	Monel	277 (105)	179 (53.1)	70.3 (33.4)	37.5 (24.3)	23.2 (19.1)	15.7	11.3	8.5
1"-445S	Brass	259 (76)	156 (38.5)	61.4 (24.2)	32.8 (17.7)	20.2 (13.9)	13.7 (11.4)	9.9	7.5
and	Carbon Steel	352 (137)	215 (69.4)	34.2 (43.6)	45.0 (31.9)	27.7 (25)	18.9	13.6	10.3
1"-445L	A.I.S.I. 304 & 316	382 (190)	224 (96.1)	87.8 (60.4)	46.9 (44.1)	28.9	19.7	14.2	10.8
	Monel	277 (152)	196 (77.1)	77.2 (48.5)	41.4 (35.4)	25.4	17.2	12.4	9.4

Where single values appear in the velocity tables, these may be considered safe for water, steam, air or gas. In the shorter insertion lengths, consideration is given to the velocity pressure effect of water flowing at higher velocities. The values in parentheses, therefore, represent safe values for water flow, while the unbracketed values may be used for steam, air, gas and similar density fluids.

Shown smaller than actual size.

See omega.com for Pressure-Temperature Ratings.