

Standard Clamped Diaphragm Seal Type L990.TC

WIKA Datasheet L990.TC

Applications

- Process industry diaphragm seal to combine with Bourdon tube pressure gauges.
- Intended for corrosive, contaminated, hot or viscous pressure media.

Design

Internal clamped diaphragm with threaded process connection; requires hydraulic fluid to transmit pressure to instrument

Process Connection

¼" to 1" NPT-female or ¼" to ¾" NPT male

Instrument Connection

¼" or ½" NPT-female

Suitable Pressure Ranges (MWP 2500PSI @250°F)

15 psi to 2500 psi

Available Options

(connections, materials, flushing ports, etc.)
See Selection Guide (over)

Volumetric Data

Displacement typically for 2.1" SS diaphragm

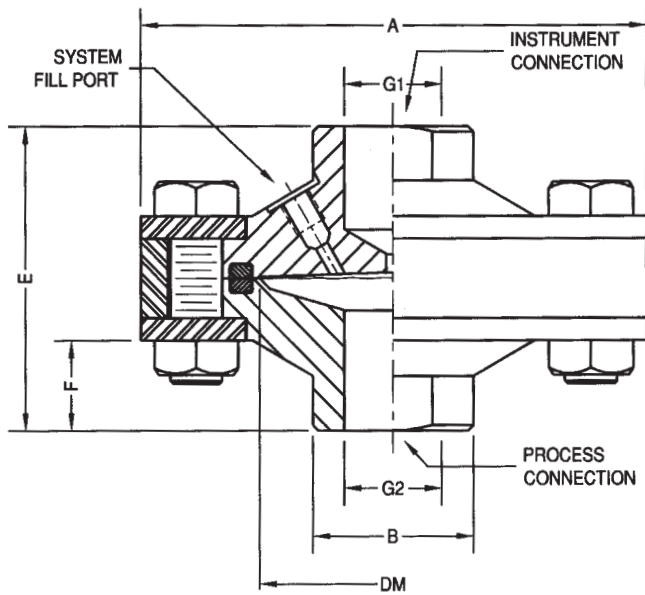
$\Delta V = 1.37 \text{ cm}^3$ [0.0836 in³]

Total cavity volume max $V_0 = 2.4 \text{ cm}^3$ [0.1464 in³]



Mini Diaphragm Seal L990.TC

To determine the effects of temperature and response time in a specific application, contact the factory for an **Application Questionnaire**. The information provided will allow WIKA Technical Support to accurately model your application parameters using state-of-the-art computer simulation techniques.

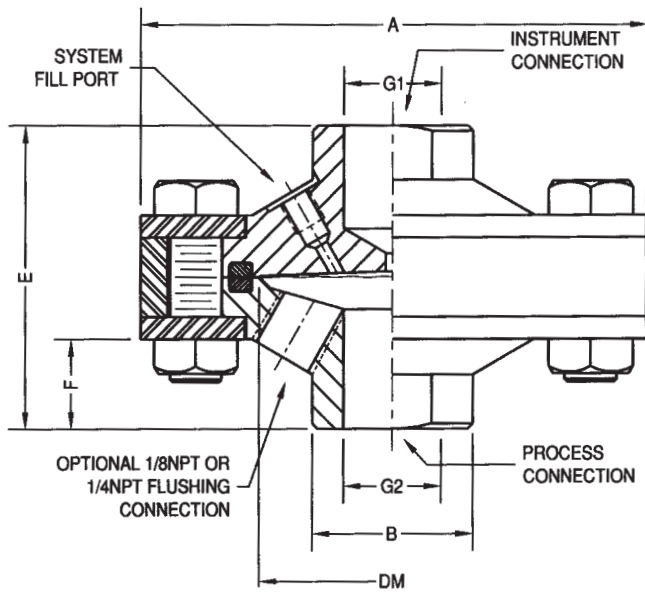


G1: Instrument Connection

G2: Process Connection

All Dimensions in inches unless otherwise noted

G1	G2	A	B	DM	E	F	Weight
							lbs
1/4" NPT or 1/2" NPT	1/4" NPT or 1/2" NPT	3.74	1.18	2.1	2.20	0.63	3.0
	3/4" NPT		1.41				3.4
	1" NPT		1.77				3.6



L990.TC Selection Guide

Field no.	Code	Description - Clamped Diaphragm, Threaded	Field no.	Code	Description - Clamped Diaphragm, Threaded	
1	Instrument Connection		6	Clamp & Support Material (including nuts and bolts)		
	N4F	1/2" NPT female		CS	Retainer flange and bolts in galvanized steel max. 500°F	
	N2F	1/4" NPT female		SS	Retainer flange and bolts in stainless steel max. 500°F	
2	Process Connection		7	Diaphragm Material		
	CPL	Capillary (Axial weld-in) connection - (see note 1)		SS	Stainless steel 316L (1.4435)	
	N2F	1/4" NPT female		HB	Hastelloy B3 (2.4600)	
	N4F	1/2" NPT female		HC	Hastelloy C276 (2.4819)	
	N6F	3/4" NPT female		MO	Monel 400 (2.4360)	
	N8F	1" NPT female		IN	Inconel 600 (2.4816)	
	N2	1/4" NPT male		IC	Incoloy 825 (2.4858)	
	N4	1/2" NPT male		TA	Tantalum	
	N6	3/4" NPT male		NI	Nickel 200 (2.4066)	
	N8	1" NPT male		TI	Titanium Grade 2 (3.7035)	
3	Upper Housing Material (Instrument Side)		CA	Carpenter 20 (2.4660)		
	CS	Carbon steel 1018, Nickel plated	TF	Stainless steel (316L) with black PTFE-foil		
4	Lower Housing Material (Process Connection)		SW	Stainless steel (316L) with virgin PTFE-foil (Tmax 300°F)		
	SS	Stainless steel 316L (1.4435)	PF	Stainless steel (316L) with Teflon®-spray-coating - (see note 3)		
	HB	Hastelloy B2 (2.4617)	DP	Duplex 2205 (1.4462)		
	HC	Hastelloy C276 (2.4819)	S4	Stainless steel 304L (1.4304)		
	MO	Monel 400 (2.4360)	VI	Viton® (see note 6)		
	IN	Inconel 600 (2.4816)	XX	Other - consult factory		
	IC	Incoloy 825 (2.4858)	Gasket Material (see note 4)			
	TI	Titanium Grade 2 (3.7035)	BN	BUNA-N (NBR) max. 212°F		
	CA	Carpenter 20 (2.4660)	VI	Viton® (FPM) max. 400°F		
	DP	Duplex 2205 (1.4462)	TF	Teflon® (PTFE) max. 500°F		
	NI	Nickel 200 (2.4066)	Pressure Rating @ 250°F			
	S4	Stainless steel 304L (1.4304)	1500	1500 psi MWP (standard 4 bolts)		
	XX	Other - consult factory	2500	2500 psi (8 bolt design)		
	5	Flushing Connection Lower Housing (see note 2)		10	Options - (see note 5)	
		-0	Without		XMT	Material Certificate 3.1 EN10204 (metal only)
		-1	1 X 1/8" NPT		XNC	Wetted parts NACE (MR0175/ MR0103 Year 2009) compliant
		-2	1 X 1/4" NPT		PLG	Provide flushing port plugs -1/8" & 1/4" NPT male
-3		2 X 1/8" NPT				
-4		2 X 1/4" NPT				

Notes:

- 1) Axial weld-in connections are only available on 316L stainless steel upper housings.
- 2) Plugs are not supplied with flushing ports as standard.
- 3) Teflon® spray coating (PF) is not intended for full corrosion protection. It is applied as a non-stick coating only.
- 4) Viton® (VI) gaskets are standard for 316L (SS) and carbon steel (CS) wetted parts. Teflon® (TF) gaskets are standard for all other wetted parts configurations.
- 5) List options in alphabetical order at the end of the configuration code.
- 6) Viton® diaphragm requires 2500 psi (MWP) 8-bolt configuration.

MODEL	INSTRUMENT CONNECTION	PROCESS CONNECTION	UPPER HOUSING MATERIAL	LOWER HOUSING MATERIAL	FLUSHING CONNECTION CLAMP & SUPPORT MATERIAL	DIAPHRAGM MATERIAL	GASKET MATERIAL	PRESSURE RATING	
L990.TC	N4F X	N4F	SS	SS	-0	SS	SS	VI	1500
Field no.	1	2	3	4	5	6	7	8	9

Ordering information

Pressure gauge model / Nominal size / Scale range / Size of connection / Optional extras required.
 Specifications and dimensions given in this leaflet represent the state of engineering at the time of printing.
 Modifications may take place and materials specified may be replaced by others without prior notice.



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