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

1/4" to 1" NPT-female or 1/4" to 3/4" NPT male

Instrument Connection 1/4" or 1/2" 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 $\Delta V = 1.37 \text{ cm}^3 [0.0836 \text{ in}^3]$ Total cavity volume max V₀ = 2.4 cm³ [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.



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SYSTEM FILL PORT HILL PORT G1: Instrument Connection

G2: Process Connection

All Dimensions in inches unless otherwise noted

G1	G2	Α	В	DM	Е	F	Weight Ibs
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		2.36	0.79	3.4
	1" NPT		1.77		3.46	1.89	3.6

Field no.CodeDescription - Clamped Diaphragm, ThreadedField no.1Instrument Connection N2F1/4" NPT female Capillary (Axial weld-in) connection - (see note 1)61CPLCapillary (Axial weld-in) connection - (see note 1)6N2F1/4" NPT female N4F1/2" NPT femaleN4F1/2" NPT female6N2F1/4" NPT femaleN4F1/2" NPT femaleN4F1/2" NPT femaleN4F1/2" NPT femaleN21/4" NPT maleN41/2" NPT maleN63/4" NPT maleN81" NPT maleN81" NPT maleN81" NPT maleN8S Stainless steel 316L (1.4435)Lower Housing Material (Process Connection)CSCarbon steel 1018, Nickel platedSSStainless steel 316L (1.4435)HBHastelloy B2 (2.4817)HCHastelloy C276 (2.4819)MOMonel 400 (2.4360)INInconel 600 (2.4816)ICIncoloy 825 (2.4858)TITitanium Grade 2 (3.7035)CACarpenter 20 (2.4660)DPDuplex 2205 (1.4462)NINickel 200 (2.4066)			L990.TC S	Select	ion Guide
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		NI	Nickel 200 (2,4066)		
S4 Stainless steel 304L (1,4304)		S4	Stainless steel 304L (1,4304)		
4 XX Other - consult factory 9	4	XX	Other - consult factory		9
Flushing Connection Lower			Flushing Connection Lower		
-0 Without		-0	Without	4	
-1 1 X 1/8" NPT			1 X 1/8" NPT		
-2 1 X 1/4" NPT		-2	1 X 1/4" NPT		
-3 2 X 1/8" NPT 10		-3	2 X 1/8" NPT		10
5 -4 2 X 1/4" NPT	5	-4	2 X 1/4" NPT		

	-			
Field no.	Code	Description - Clamped		
		Clamp & Support Material		
		(including nuts and bolts)		
	CS	Retainer flange and bolts in galvanized steel max. 500°F		
6	SS	Retainer flange and bolts in		
0		Diaphragm Material		
	SS	Stainless steel 316L (1 4435)		
	HB	Hastellov B3 (2 4600)		
	HC	Hastellov C276 (2 4819)		
	MO	Monel 400 (2 4360)		
	IN	Inconel 600 (2.4816)		
		Incolov 825 (2.4858)		
	TA	Tantalum		
	NI	Nickel 200 (2.4066)		
	TI	Titanium Grade 2 (3.7035)		
	CA	Carpenter 20 (2.4660)		
	TF	Stainless steel (316L) with black PTFE-foil		
	SW	Stainless steel (316L) with virgin PTFE-foil (Tmax 300°F)		
	PF	Stainless steel (316L) with Teflon [®] - spray-coating - (see note 3)		
	DP	Duplex 2205 (1.4462)		
	S4	Stainless steel 304L (1.4304)		
	VI	Viton [®] (see note 6)		
7	XX	Other - consult factory		
		Gasket Material (see note 4)		
	BN	BUNA-N (NBR) max. 212°F		
	VI	Viton [®] (FPM) max. 400°F		
8	TF	Teflon® (PTFE) max. 500°F		
		Pressure Rating @ 250°F		
	1500	1500 psi MWP (standard 4 bolts)		
9	2500	2500 psi (8 bolt design)		
		Options - (see note 5)		
	XMT	Material Certificate 3.1 EN10204 (metal only)		
	XNC	Wetted parts NACE (MR0175/ MR0103 Year 2009) compliant		
10	PLG	Provide flushing port plugs -1/8" & 1/4" NPT male		

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.



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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. WIKA Datasheet L990.TC 2/2015



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