

Type L Series Diaphragm Seal Elements for Low Pressure Applications

- q Removable Elastomer Diaphragms
 - Ideal for Low Pressure Sensitivity Bellows and Diaphragm-type Gauges
- q Materials Available for Corrosive Applications
- **q** Superior Low Pressure Response
 - Pressures as Low as 2-inches H₂O
- **q** Large Volumetric Displacement
 - 1.38 cubic inches
- q Seal Ratings to 5000 PSIG (345 bar)
- Non-Continuous Duty Seals

PRODUCT DESCRIPTION

Type L Series diaphragm seals feature removable, elastomer diaphragms that may be replaced or repaired if required. These seal elements are intended for low pressure sensitivity instruments such as bellows and diaphragm-type gauges. They are sensitive to pressure changes as low as 2-inches H_2O (51mm H_2O @ 4°C).

Type L Series diaphragm seals employ diaphragms retained between two bolted members. In the clean-out design, the diaphragms are situated between the top and middle ring. In the LB and LG design, the diaphragms are located between the top and bottom. The diaphragm is loosely retained in the upper housing for easy repair or replacement. This extends the life of the seal element and allows for field replacement and service.

There are three basic seal configurations:

Threaded Flanged Inline Flow-Thru



Specification Sheet SS-DS-5400-0600 June 2000 Issue 1

Threaded Seal Elements

There are four basic versions of L Series diaphragm seals with threaded attachments. The LB seal element is used for pressure applications only and has a pressure rating of 1250 PSIG at 100°F (86 bar @ 38°C). The LG seal element is similar to the LB seal, except that it has a 0.25-inch NPT flushing connection.

The LA seal element has a standard pressure rating of 1250 PSIG at 100°F (86 bar @ 38°C), but may also be supplied with a pressure rating of up to 5000 PSIG. The LH seal element is similar to the LA seal element except that it features a 0.25-inch NPT flushing connection. Both have an extended area allowing for negative displacement making them ideal for vacuum applications.

Flanged Seal Elements

There are two basic versions of flanged L Series seal elements. The flange is a standard raised face style. The LC seal element may be supplied in 0.5- and 0.75-inches with CLASS 150 thru 1500 ANSI flange ratings. A 1-inch version may be supplied with a Class 150 thru 600 ANSI rating. 2-thru 8-inch versions are available with Class 150 to 300 ANSI ratings.

Inline Flow-Thru Seal Elements

Inline flow-thru L Series diaphragm seals include the LJ versions for 3-inch and larger pipe connections. The LK versions are available with 0.25-, 0.375- or 0.5-inch NPT process connections. The LM version is for pipe sizes from 0.75-inch to 2.5-inch schedule 40 pipe (other schedules available) where the diaphragm seal element is to be directly welded to the process pipe.

The LN version is for pipe sizes from 0.75- to 2.0-inches requiring ANSI ratings of 150 or 300. These may be supplied with an optional TEFLON liner.

The LP versions are for pipe sizes from 3- to 8-inches and with ANSI ratings of 150 or 300.

MODEL L SERIES SELECTION GUIDE

Seal Type	Seal Mounting	Operating Temperature	Operating Pressure	Process Application	Flushing Connection
LB	Thread	100°F (38°C)	1250 PSIG (86 bar) ²	Low Pressure	No Flush
LG	Thread	100°F (38°C)	1250 PSIG (86 bar)	Low Pressure	With Flushing Connection
LA	Thread	100°F (38°C)	1250 PSIG (86 bar) ¹	Vacuum	No Flush
LH	Thread	100°F (38°C)	1250 PSIG (86 bar) ¹	Vacuum	With Flushing Connection
LC	Flange		Flange Dependent ²	Low Pressure	No Flush
LD	Flange		Flange Dependent	Low Pressure	With Flushing Connection
LJ	In-Line Flow Thru ^A	100°F (38°C)	1250 PSIG (86 bar)	Low Pressure	No Flush
LK	In-Line Flow Thru ^B	100°F (38°C)	1250 PSIG (86 bar)	Low Pressure	No Flush
LM	In-Line Flow Thru ^c	100°F (38°C)	1250 PSIG (86 bar)	Low Pressure	No Flush
LN	In-Line Flow Thru ^D		Flange & Schedule Dependent	Low Pressure	No Flush
LP	In-Line Flow Thru ^E		Flange & Schedule Dependent	Low Pressure	No Flush

Note: 1 5000 PSIG available @ 100°F (345 bar @ 38°C)

² LB and LC Series with non-metal exposed materials are rated at 100 PSI (7 bar)

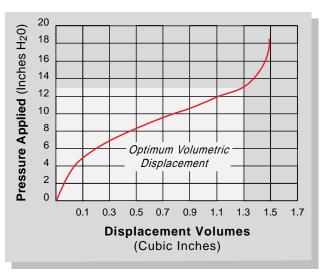
^A In-Line Flow Thru Welded by User

^B In-Line Flow Thru Thread-Attached Connection

^c In-Line Flow Thru Welded by User, Pipe Supplied, Schedule Dependent

D In-Line Flow Thru For 0.75 to 2.0-inch Pipe Diameters

^E In-Line Flow Thru For 3.0 to 8.0-inch Pipe Diameters



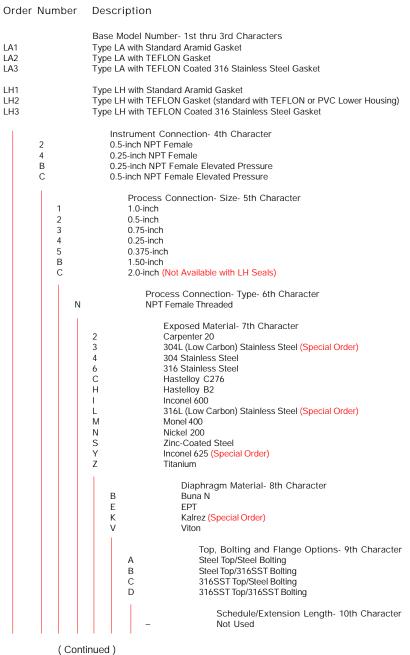
Pressure vs. Volumetric Displacement

Displacement curves are provided to assist in selecting a diaphragm seal with minimal full span displacement bias effects. This graph is for reference only and may not accurately represent the maximum displacement that may be used. Contact AMETEK for exact specifications.

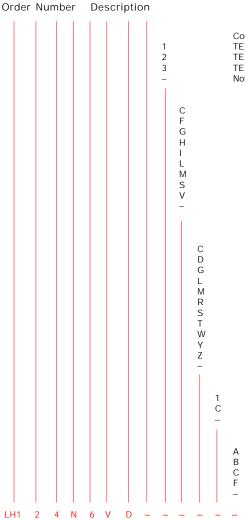
Application Note

Prevent inaccuracies by avoiding very low span in gauge or differential pressure applications which do not provide sufficient differential pressure energy to drive the instrument, seal element and fill liquid column.

TYPE LA AND LH SERIES DIAPHRAGM SEALS



TYPE LA AND LH SERIES DIAPHRAGM SEALS



Coating Options- 11th Character TEFLON Coated Diaphragm TEFLON Coated Lower Exposed TEFLON Coated Exposed Surfaces

Not Used

Fill Fluids- 12th Character (MUST specify a 13th and 14th Character)

Customer Supplied (MUST Supply MSDS with Shipment)

Fluorolube FS-5 Glycol Halocarbon 6.3 Instrument Oil

Low Temperature Silicone DC 200-10cs

Mineral Oil

High Temperature Silicone DC 704

Vegetable Oil (Food Grade)

Not Used (When selected, cannot select a 13th or 14th Character)

Fill and Attach to Instrument- 13th Character (Customer Supplied)

(MUST Specify a 12th and 14th Character)

Controller

DP Instruments (Special Order)

Gauge (> 30 PSI/2 bar)

Gauge (< 30 PSI/2 bar)(Including combination gauges with Lower ranges)
Dual Manifold Fitting

Recorder Switch Transducer Recording Controller Transmitter Smart Transmitter Not Used

Capillary Length- 14th Character

Direct Connected

Capillary System (See Capillary System Section)

Not Used

Options- 15th Character

With Material (Mill) Certification (Special Order)

With MRO 17.5 Cert. (Seal cannot have Steel Top) (Special Order) With Certificate of Conformance

With Instrument Tag (Special Order)

Not Used

Sample Order Number

LH Series Remote Seal with 0.25-inch NPT flushing connection, 0.5-inch NPT Instrument Connection, 0.25-inch NPT Female Process Connection, 316 Exposed Material, Vtion Diaphragm, 316 Top with 316 Bolting, No Extension, No Coating and No Fill Fluids

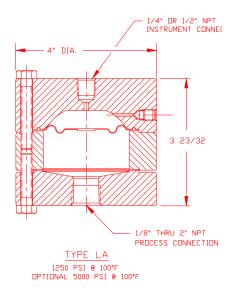
This diaphragm seal contains "special order" components. Please contact AMETEK for price and delivery.

Diaphragm seals with "special order" components may not be returned for credit.

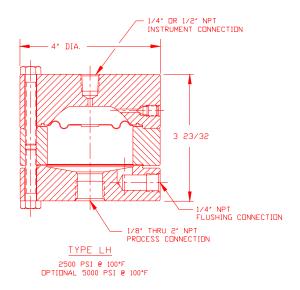
Specification Sheet SS-DS-5400-0600 June 2000 Issue 1

ORDERING INFORMATION

TYPE LA SERIES DIAPHRAGM SEALS

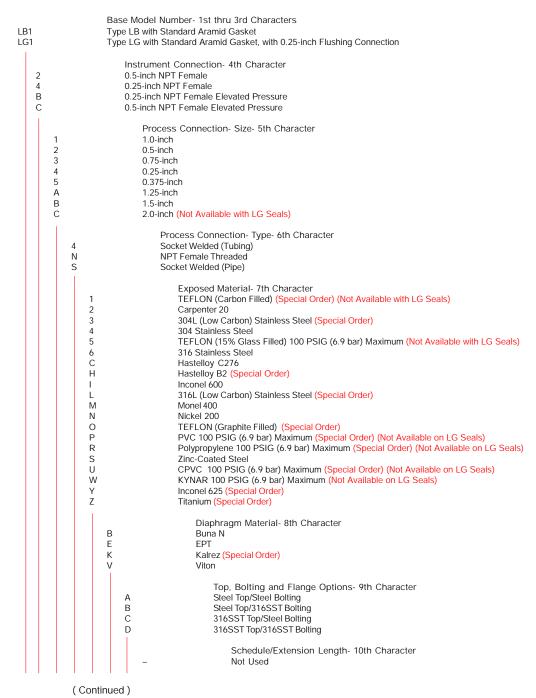


TYPE LH SERIES DIAPHRAGM SEALS

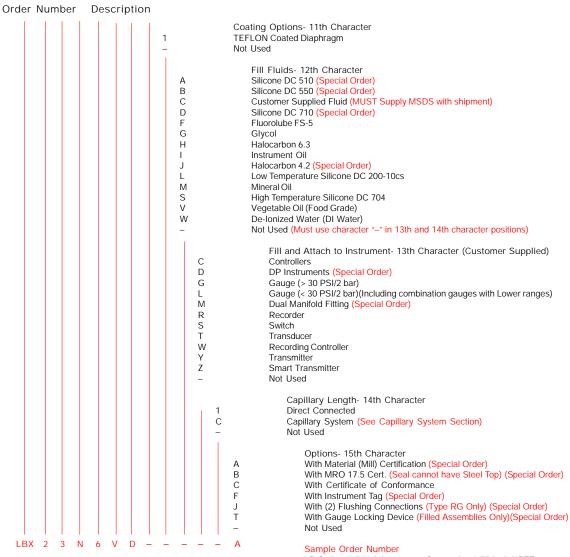


TYPE LB AND LG SERIES DIAPHRAGM SEALS

Order Number Description



TYPE LB AND LG SERIES DIAPHRAGM SEALS



LB Series, 0.5-inch Instrument Connection 0.75-inch NPTF threaded Process Connection. 316 bottom with 316 diaphragm. 316 top with 316 boltings. Top is epoxy coated. No fill required. Supplied with Material Certification.

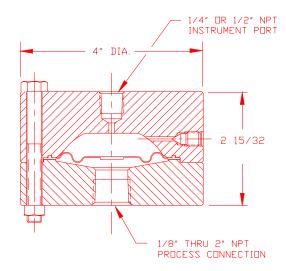
Note

This diaphragm seal contains "special order" components. Please contact AMETEK for price and delivery.

Diaphragm seals with "special order" components may not be returned for credit.

TYPE LB AND LG SERIES DIAPHRAGM SEALS

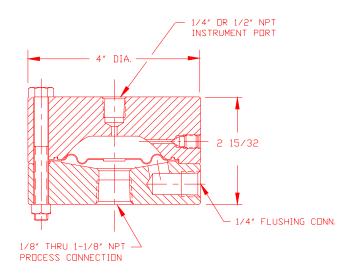
Order Number Description



TYPE LB

1250 PSI @ 100° F

OPTIONAL: 5000 PSI @ 100° F
E USED FOR PRESSURE APPLICATIONS ONLY)



TYPE LG

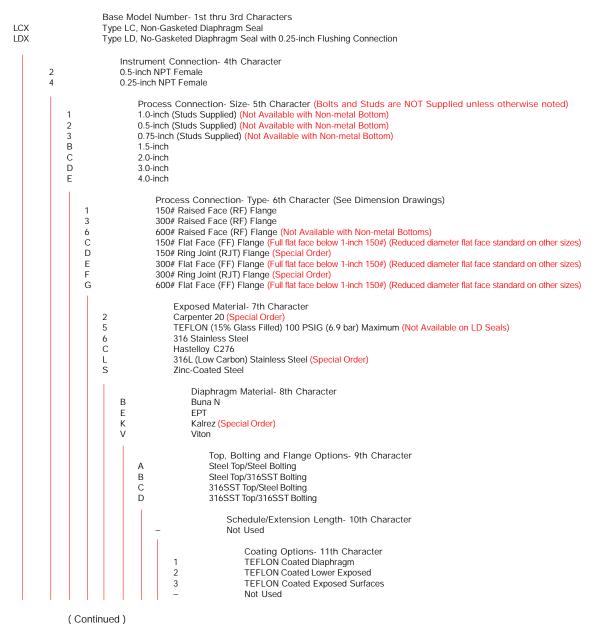
1250 PSI @ 100° F

OPTIONAL: 5000 PSI @ 100°F

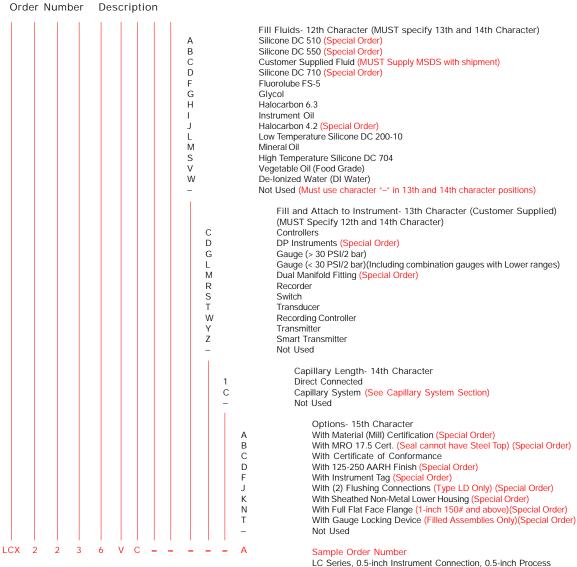
(TO BE USED FOR PRESSURE APPLICATIONS ONLY)

TYPE LC AND LD SERIES DIAPHRAGM SEALS

Order Number Description



TYPE LC AND LD SERIES DIAPHRAGM SEALS



(Continued)

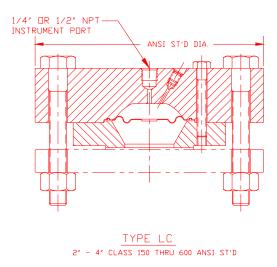
LC Series, 0.5-inch Instrument Connection, 0.5-inch Process Connection, 300# RF flange, 316 bottom with Viton diaphragm and 316 top and alloy bolting. Supplied with Material Certification.

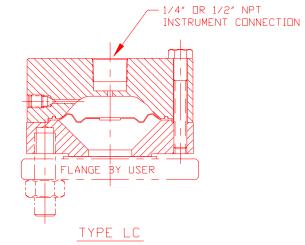
Note

This diaphragm seal contains "special order" components. Please contact AMETEK for price and delivery.

Diaphragm seals with "special order" components may not be returned for credit.

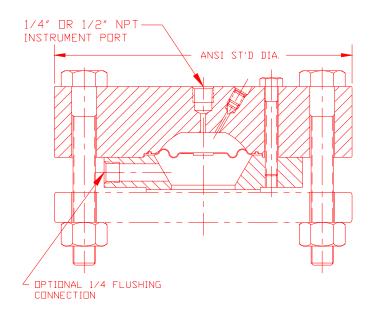
TYPE LC SERIES DIAPHRAGM SEALS





1/2", 3/4" CLASS 150 THRU 1500 ANSI ST'D 1" & 1-1/2" CLASS 150 THRU 600 ANSI ST'D

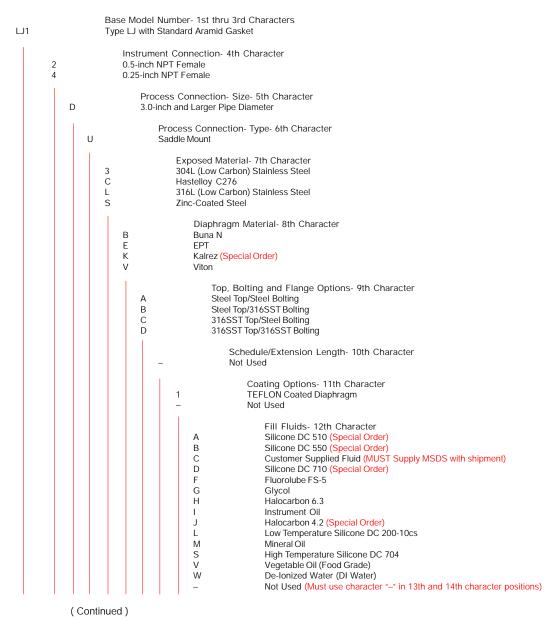
TYPE LD SERIES DIAPHRAGM SEALS



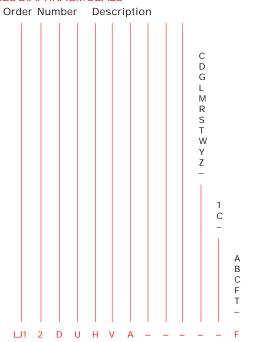
<u>TYPE LD</u> 2" - 4" CLASS 150 THRU 600 ANSI ST'D

TYPE LJ SERIES DIAPHRAGM SEALS

Order Number Description



TYPE LJ SERIES DIAPHRAGM SEALS



Fill and Attach to Instrument- 13th Character (Customer Supplied) (MUST Specify 12th and 14th Characters)

Controllers

DP Instruments (Special Order)

Gauge (> 30 PSI/2 bar)

Gauge (< 30 PSI/2 bar)(Including combination gauges with Lower ranges)

Dual Manifold Fitting (Special Order)

Recorder Switch Transducer Recording Controller

Transmitter

Smart Transmitter

Not Used

Capillary Length- 14th Character Direct Connected

Capillary System (See Capillary System Section)

Not Used

Options- 15th Character

With Material (Mill) Certification (Special Order)
With MRO 17.5 Cert. (Seal cannot have Steel Top) (Special Order)
With Certificate of Conformance

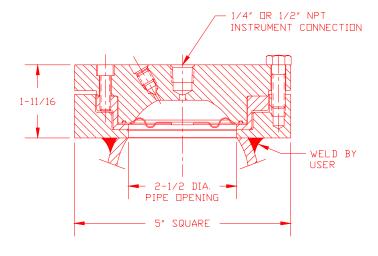
With Instrument Tag (Special Order)
With Gauge Locking Device (Filled Assemblies Only)(Special Order)

Not Used

Sample Order Number
LJ Series with Aramid gasket. 0.5-inch Instrument Connection and 3.0-inch Process Connection. Saddle mount. Hastelloy B2 bottom and Viton diaphragm. Steel top and alloy boltings. Standard Schedule 40. With instrument tags.

This diaphragm seal contains "special order" components. Please contact AMETEK for price and delivery.

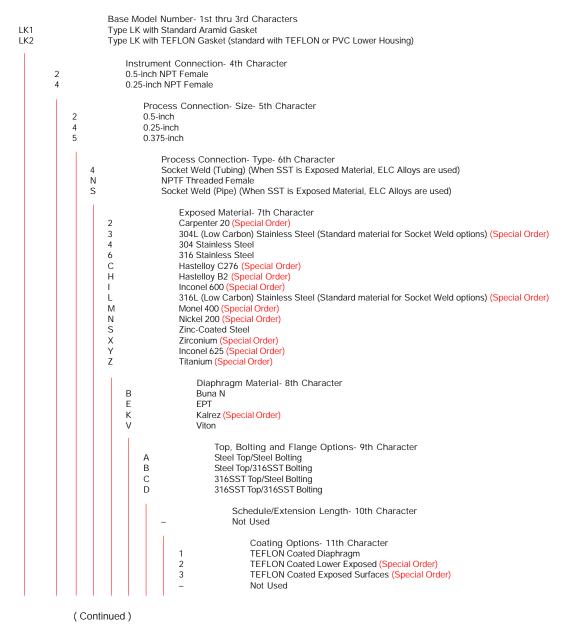
Diaphragm seals with "special order" components may not be returned for credit.



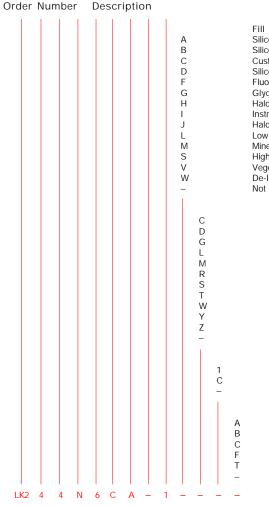
TYPE LJ FOR 3" PIPE OR LARGER 1250 PSI @ 100° F

TYPE LK SERIES DIAPHRAGM SEALS

Order Number Description



TYPE LK SERIES DIAPHRAGM SEALS



Fill Fluids- 12th Character Silicone DC 510 (Special Order) Silicone DC 550 (Special Order) Customer Supplied Fluid (MUST Supply MSDS with shipment)
Silicone DC 710 (Special Order) Fluorolube FS-5 Glycol Halocarbon 6.2 Instrument Oil Halocarbon 4.3 (Special Order)
Low Temperature Silicone DC 200-10cs Mineral Oil High Temperature Silicone DC 704 Vegetable Oil (Food Grade) De-Ionized Water (DI Water) Not Used (Must use character "-" in 13th and 14th character positions) Fill and Attach to Instrument- 13th Character (Customer Supplied) Controllers DP Instruments (Special Order) Gauge (> 30 PSI/2 bar) Gauge (< 30 PSI/2 bar)(Including combination gauges with Lower ranges) Dual Manifold Fitting (Special Order) Recorder Switch Transducer Recording Controller Transmitter Smart Transmitter Not Used Capillary Length- 14th Character Direct Connected Capillary System (See Capillary System Section) Not Used Options- 15th Character With Material (Mill) Certification (Special Order) With Certificate of Conformance

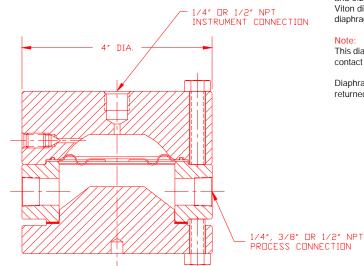
With MRO 17.5 Cert. (Seal cannot have Steel Top) (Special Order) With Instrument Tag (Special Order)
With Gauge Locking Device (Filled Assemblies Only)(Special Order) Not Used

Sample Order Number

LK Series with TEFLON gasket. 0.25-inch Instrument Connection and 0.25-inch NPT process connection. 316 bottom with Viton diaphragm. 316 top with alloy bolting. TEFLON coated diaphragm.

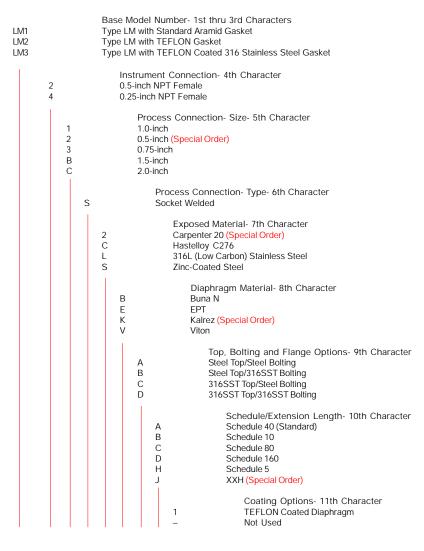
This diaphragm seal contains "special order" components. Please contact AMETEK for price and delivery.

Diaphragm seals with "special order" components may not be returned for credit.



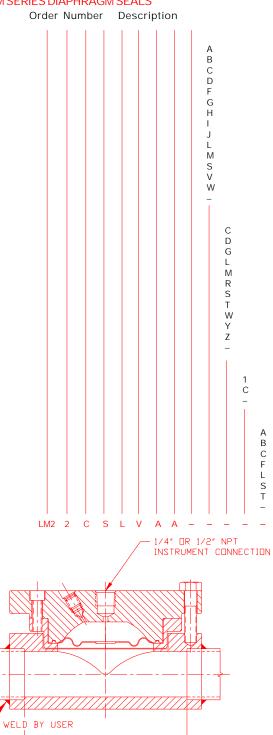
TYPE LM SERIES DIAPHRAGM SEALS

Order Number Description



(Continued)

TYPE LM SERIES DIAPHRAGM SEALS



TYPE LM

1250 PSI @ 100°F
PIPE SIZES 3/4" THRU 2-1/2" SCH 40 ST'D SOCKET WELD
"A" FOR 3/4" & 1" = 4-1/4"
"A" FOR 1-1/4" THRU 2-1/2" = 4-5/8"

Fill Fluids- 12th Character Silicone DC 510 (Special Order) Silicone DC 550 (Special Order)

Customer Supplied Fluid (MUST Supply MSDS with shipment)

Silicone DC 710 (Special Order)

Fluorolube FS-5 Glycol

Halocarbon 6.3 Instrument Oil

Halocarbon 4.2 (Special Order)
Low Temperature Silicone DC 200-10cs

Mineral Oil

High Temperature Silicone DC 704 Vegetable Oil (Food Grade)

De-Ionized Water (DI Water)

Not Used (Must use character "-" in 13th and 14th character positions)

Fill and Attach to Instrument- 13th Character (Customer Supplied)

Controllers

Not Used

DP Instruments (Special Order)

Gauge (> 30 PSI/435 bar)

Gauge (> 30 PSI/435 bar)(Including combination gauges with Lower ranges)
Dual Manifold Fitting (Special Order)

Recorder Switch Transducer Recording Controller Transmitter Smart Transmitter

Capillary Length- 14th Character

Direct Connected

Capillary System (See Capillary System Section)

Not Used

Options- 15th Character

With Material (Mill) Certification (Special Order)

With MRO 17.5 Cert. (Seal cannot have Steel Top) (Special Order)

With Certificate of Conformance With Instrument Tag (Special Order)
With Full Penetration Weld (Special Order) With Seamless Pipe (Special Order)

With Gauge Locking Device (Filled Assemblies Only)(Special Order)

Not Used

Sample Order Number

LM Series with TEFLON gasket. 0.5-inch Instrument Connection with 2-inch Process Connection, Socket Welded. 316L bottom with Viton diaphragm. Steel top with alloy bolting. Schedule 40 pipe.

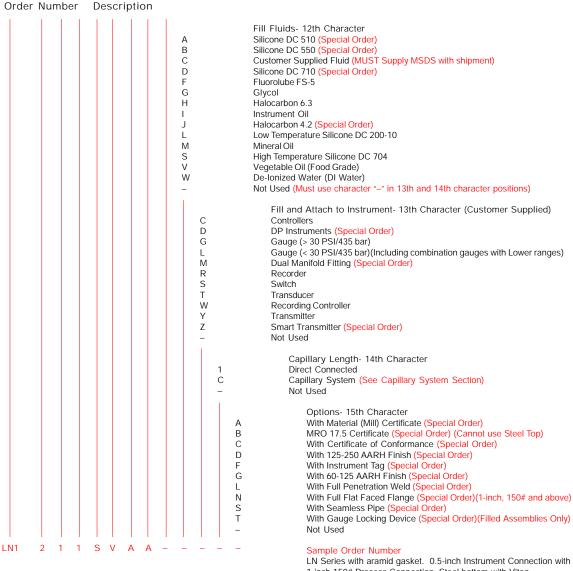
This diaphragm seal contains "special order" components. Please contact AMETEK for price and delivery.

Diaphragm seals with "special order" components may not be returned for credit

TYPE LN AND LP SERIES DIAPHRAGM SEALS

Order Number Description Base Model Number- 1st thru 3rd Characters LN1 Type LN with Standard Aramid Gasket LN2 Type LN with TEFLON Gasket (standard with Non-metal bottoms) LN3 Type LN with TEFLON Coated 316 Stainless Steel Gasket LP1 Type LP with Standard Aramid Gasket LP2 Type LP with TEFLON Gasket (standard with TEFLON or PVC Lower Housing) LP3 Type LP with TEFLON Coated 316 Stainless Steel Gasket Instrument Connection- 4th Character 0.5-inch NPT Female 0.25-inch NPT Female Process Connection- Size- 5th Character 1.0-inch 0.75-inch 3 С 2.0-inch 3.0-inch (Available on LP Series Only) D 4.0-inch (Available on LP Series Only) Process Connection- Type- 6th Character 150# Raised Face Flange 3 300# Raised Face Flange С 150# Flat Face Flange 300# Flat Face Flange Exposed Material- 7th Character 316L (Low Carbon) Stainless Steel S Diaphragm Material- 8th Character В Buna N Ε K Kalrez (Special Order) Viton Top, Bolting and Flange Options- 9th Character Steel Top/Steel Bolting Steel Top/316SST Bolting B C 316SST Top/Steel Bolting 316SST Top/316SST Bolting D Schedule/Extension Length- 10th Character Schedule 40 (Standard) Schedule 10 В Schedule 80 С D Schedule 160 Н Schedule 5 XXH (Special Order) Coating Options- 11th Character TEFLON Coated Diaphragm Not Used (Continued)

TYPE LN AND LP SERIES DIAPHRAGM SEALS



(Continued)

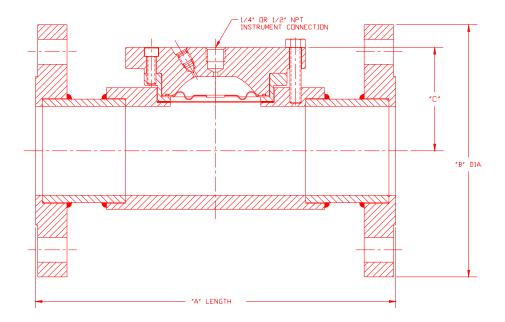
LN Series with aramid gasket. 0.5-inch Instrument Connection with 1-inch 150# Process Connection, Steel bottom with Viton diaphragm. Steel top with alloy bolting. Schedule 40 pipe.

Note

This diaphragm seal contains "special order" components. Please contact AMETEK for price and delivery.

Diaphragm seals with "special order" components may not be returned for credit. $\label{eq:components}$

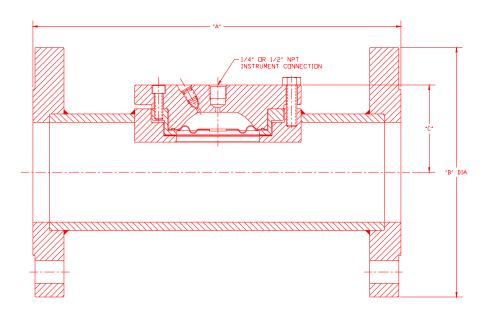
TYPE LN SERIES DIAPHRAGM SEALS



MODEL LN DIMENSIONS

SIZE"	CLASS	A"	B"	C"
0.75	150	7.0	3.875	2.0625
0.75	300	9.0	3.875	2.0625
1.0	150	7.0	4.25	2.1875
1.0	300	8.0	4.875	2.1875
1.5	150	8.0	5.0	2.5
1.5	300	9.0	6.125	2.5
2.0	150	9.75	6.0	2.6875
2.0	300	10.0	6.5	2.6875
2.5	150	10.0	7.0	2.875
2.5	300	11.0	7.5	2.875
3.0	150	10.0	7.0	2.875
3.0	300	11.0	7.5	2.875

TYPE LP SERIES DIAPHRAGM SEALS



MODEL LP DIMENSIONS

SIZE"	CLASS	A"	B"	C"
3.0	150	11.0	7.5	2.3125
3.0	300	12.0	8.25	2.75
4.0	150	13.0	9.0	3.625
4.0	300	14.0	10.0	3.625
6.0	150	16.0	11.0	4.5625
6.0	300	17.0	12.5	4.5625
8.0	150	18.0	13.5	5.3125
8.0	300	19.0	15.0	5.3125

Capillary Systems for Diaphragm Seals

AMETEK offers a number of methods for mounting your diaphragm seal to various forms of instrumentation including:

Gauges
Controllers
Transducers
Transmitters
Smart Transmitters
Recorders
Recording Controllers

Indicators

Direct Mounting Application

AMETEK supplies low volume connecting nipples for direct mount applications. These nipples are available with 0.25-and 0.5-inch NPT end connections (other types available) and in 2.0- or 4.0-inch lengths (50.8 - 101.6mm). Nipples are manufactured of 300 Stainless Steel.

Remote Mounting Application

Instrument Connection and 0.5-inch NPT Male Process Connection

AMETEK can supply Capillary Systems for remotely mounting your diaphragm seal. Manufactured of 300 Series Stainless Steel, these systems feature an all TIG welded construction. Maximum pressure ratings up to 10,000 PSIG (690 bar) are available (for higher ratings contact AMETEK).



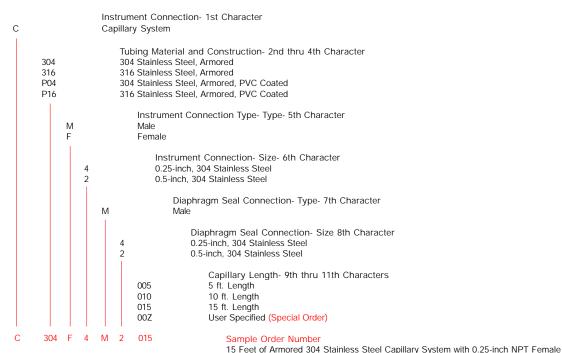


Armored Tubing Assembly (Minimum Bend Radius = 1-1/4-inch inside)

ORDERING INFORMATION

CAPILLARY SYSTEMS FOR M&G DIAPHRAGM SEALS

Order Number Description



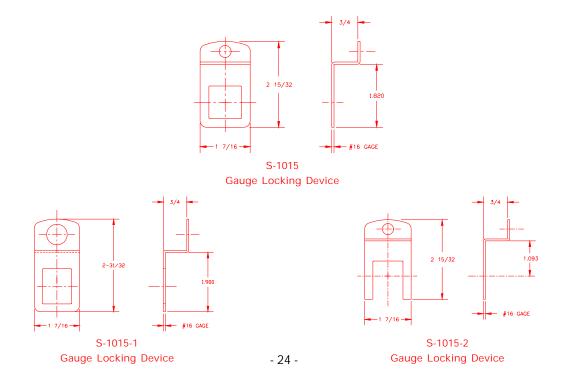
Capillary System Pricing

You must specify the complete Capillary System Order Number as a separate line item with your Diaphragm Seal Order Number. If your Diaphragm Seal Order Number has the character "C" in the 14th character space, you must specify the capillary system required using the price sheet. Your purchase order should contain a line item for the Diaphragm Seal and a line item for your Capillary System.

Diaphragm Seal Accessories

Part Number	Description
N1SS/303* S105	Nipple, 0.25-inch NPT at both ends Vacuum Fill Fittings
10-90003	O-Ring, for use with S105 Vacuum Fill Fittings
S238/303	Fill Screw, Long Type
DS170/203	Fill Screw, Short Type
DS495/Steel*	Union Connection for direct mounting on diaphragm seal tops. 0.25-inch male, 0.5-inch female
DS504-1/303*	Dual Manifold for mounting two instruments or gauges, 0.5-inch NPT male x 0.25 x 0.25-inch female
DS491/Steel*	Union Connection for remote mounting of capillary tubing to NPT male, 0.125-inch capillary x 0.25-inch female
DS482/Steel*	Extension, for extending height of gauge or instruments from diaphragm seal top. 0.5-inch NPT male x 0.5-inch female
DS498/Steel*	Union Connection Assembly for mounting directly to diaphragm seal top. 0.25-inch NPT male x 0.125-inch capillary
DS494/Steel*	Union Connection Assembly for mounting directly to diaphragm seal top. 0.25-inch NPT male x 0.25-inch male
DS398-1/Steel*	Fitting, 90° Adapter, 4.0-inch long, for angle mounting of gauges or other instruments to diaphragm seal tops. 0.5-inch male x 0.5-inch female
DS398/Steel*	Fitting, 90° Adapter, 3.0-inch long, for angle mounting of gauges or other instruments to diaphragm seal tops. 0.5-inch male x 0.5-inch female
DS349/Steel*	Fitting, 90° Adapter, 2.0-inch long, for angle mounting of gauges or other instruments to diaphragm seal tops. 0.5-inch male x 0.5-inch female
DS539-2/Steel*	Dual Manifold for mounting two instruments or gauges. 0.25-inch NPT female x 0.25-inch male
N2S/Steel	Reducing Nipple, 0.25-inch NPT male to 0.125-inch NPT male
S-1015	Gauge Locking Device (Use with Type SB, SG, RB, RG)
S-1015-1	Gauge Locking Device (Use with Type SC, SD, RC, RD) (For 1-inch 150#/500#)
S-1015-2	Gauge Locking Device (Use with Type LB, LG)

Note:* Other Sizes and Material Available as "Special Order".



Fill Fluid Properties

FLUID	TEMPERAT °F	URE LIMITS °C	SPECIFIC GRAVITY @ 25°C	VISCOSITY CENTISTOKES
DC Silicone 510	-60° to 400°F	-50° to 204°C	0.99	350.0 @ 25°C
DC Silicone 550	-40° to 450°F	-40° to 232°C	1.07	125.0 @ 25°C
DC Silicone 710	41° to 653°F	5° to 345°C	1.11	500.0 @ 25°C
Fluorolube FS-5	-40° to 302°F	-40° to 150°C	1.88	7.8 @ 25°C
Glycol	-60° to 235°F	-50° to 112°C	1.08	7.0 @ 25°C
Halocarbon Oil 6.3	-40° to 455°F	-40° to 235° C	1.88	10.6 @ 25°C
Instrument Oil	-40° to 315°F	-40° to 157°C	0.92	95.0 @ 25°C
DC Silicone 200-10cs	-49° to 401°F	-45° to 205°C	0.93	10.0 @ 25°C
Mineral Oil	30° to 300°F	-1° to 150°C	0.87	40.2 @ 100°F
DC Silicone 704	32° to 599°F	0° to 315°C	1.07	39.0 @ 25°C
Vegetable Oil (Food Grade)	40° to 360°F	5° to 182°C	0.92	75.0 @ 70°F

Note: Always obtain a complete specification from the Fill Fluid manufacturer before specifying a fill fluild.

Special Care

Fill fluids should be carefully selected by considering their physical properties at the extremes of the ambient and process temperature which they will be subjected. Fill fluids must also be chemical compatible with the process fluid to avoid potentially hazardous reaction in the event of a diaphragm failure. Hydrocarbon-based liquids are NOT typically used with strong oxidizers such as Oxygen, Chlorine, Hydrogen Peroxide or Nitric Acid. Instead, these applications are generally specified with an inert liquid such as Fluorolube or Halocarbon.

Silicone 510

This low temperature product resists salts, dilutes, alkalis and acids.

Silicone 550

This high temperature product resists radiation and oxidation and has excellent shear stability and heat transfer characteristics.

Silicone 704

This product contains a phenyl group that may result in an explosion when exposed to high concentrations of nitric, sulfuric and nitric and sulfuric acid mixtures.

Silicone 710

This product is commonly used for high temperature application. Silicone 710 at 20°F has a viscosity of nearly 50,000 centistokes. Use of this product can result in response problems on low pressure applications and on high pressure applications with long capillaries.

Fluorolube & Halocarbon Oils

These products are chlorofluorocarbon oils and may be used when nonflammability and inertness are required. These oils are frequently used when strong oxidizing agents (Oxygen, Chlorine, Nitric acid, Hydrogen Peroxide) preclude the use of more commonly used glyceride or silicone fill fluids. These oils may react with diamine and aluminum compounds. Aluminum housings with threaded instrument connections should not be used with these products.

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PRODUCT QUOTATION TEMPLATE

PROCESS APPLICATION SPECIFICATIONS

Specify Application Type (Check ONE)	Specify Mounting Type (Check ONE)		
Corrosive		Flange Attached		
Economy		Thread Attached		
Fugitive Emission		In-Line Flow Thru (Thread Attached Connection) In-Line Flow Thru (Welded by User)		
General Purpose Jacketed Pipeline				
·		In-Line Flow Thru (Welded by User, Pipe Supplied, Schedule Dependent) In-Line Flow Thru (For Pipe Sizes 0.75 to 3.0-inch Diameters)		
Low Pressure Low Pressure Transmitter Sanitary		In-Line Flow Thru (For Pipe Sizes 0.75 to 3.0-inch Diameters) In-Line Flow Thru (For Pipe Sizes 3.0 to 8.0-inch Diameters) Sanitary (Please Specify)		
Other (Please Specify)				
Specify Operating Temperature (Desig	nate °F or °C)	Specify Operating Pressure (Designate PSI, Bar)		
(Circle °	F or °C)	(Circle PSI or Bar)		
Specify Process Application (Check C	DNE)	Requires Flushing Connection (Check ONE)		
Low Pressure	Saddle Mount	Yes		
Vacuum	Thread Attached	No		
General Purpose	Butt Welded			
Removable Bottom (without fluid loss)	Small Pipe			
Tantalum Clad Bottom	Large Pipe			
High Pressure	Jacketed Pipeline			
EPC Clean Air Act	Severe Service			
Specify Special Considerations				

Any Diaphragm Seal Models that use an option that is denoted in the specification sheet as (Special Order) may not be returned for credit PRODUCT QUOTATION TEMPLATE SEAL OPTIONS AND MODEL DESIGNATION Base Model and Gasket Type Instrument Connection **Process Connection Size Process Connection Type Exposed Material**

Top, Bolting & Flange Ring Material

Schedule/Extension Length

Fill and Attach to Instrument

Diaphragm Material

Coating Option

Fill Fluids

Options

 ∞

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You must specify the complete Capillary System Order Number as a separate line item with your Diaphragm Seal Order Number. If your Diaphragm Seal Order Number has the character "C" in the 14th character space, you must specify the capillary system required using this price sheet. Your purchase order should contain a line item for the Diaphragm Seal and a line item for your Capillary System. All diaphragm seal assemblies and components must be selected with full consideration of process fluids, pressure and temperature compatability to prevent misapplication. An improper selection may result in a system failure and possible property damage or injury to personnel. Capillary System Pricing CAUTION Capillary System (Complete bottom if "C")

CAPILLARY SYSTEM MODEL DESIGNATION **Tubing Material and Construction** Instrument Connection Type Instrument Connection Size Diaphragm Seal Connection Type ≤ Diaphragm Seal Connection Size 10 Capillary Length

Instrument Connection

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AMETEK is a leading global manufacturer of electrical and electromechanical products for niche markets. Listed on the New York Stock Exchange (AME) since 1930, AMETEK's annual sales are approaching \$1billion. Operations are in North America, Europe and Asia, with about one-third of sales to markets outside the United States.

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> ISO 9001 Manufacturer

Pub Code SS-DS-5400-0600 Issued 06/00

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