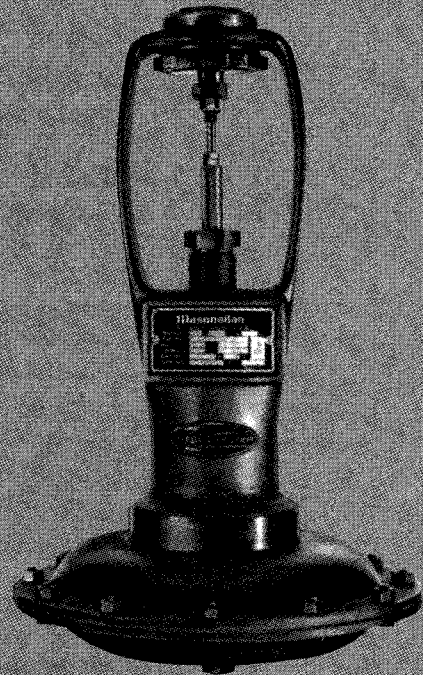


10900 Series Actuators for use with 525, 526 and 535H Regulators



Masoneilan

DRESSER

Table of Contents

Materials	4
Part Numbers.....	5
Pressure Ranges.....	5
Maximum Static Pressure	5
Diaphragm Materials	5
Dimensions	6
Weights	6

Foreword

The 10900 Series actuators are designed for use with the 500 Series regulators for reducing, back pressure and differential pressure applications.

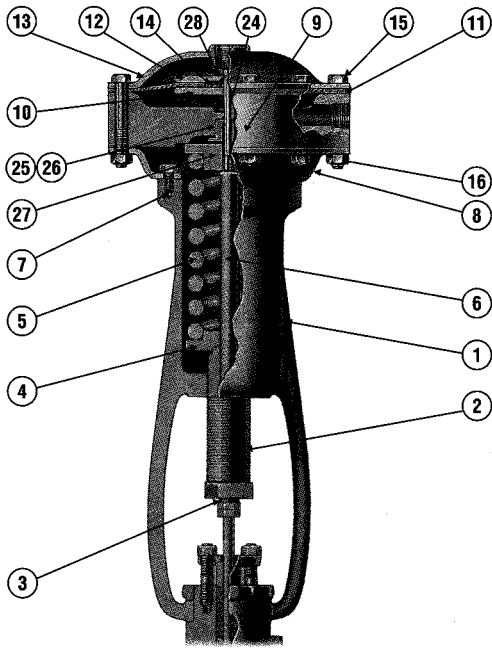
The following chart indicates the combinations available to provide the desired function.

Function	Actuator	Regulator
Reducing	Spring Diaphragm	525, 535H
Back Pressure	Spring Diaphragm	526
Differential, Reducing	Differential	525, 535H
Differential, Back Pressure	Differential	525, 526

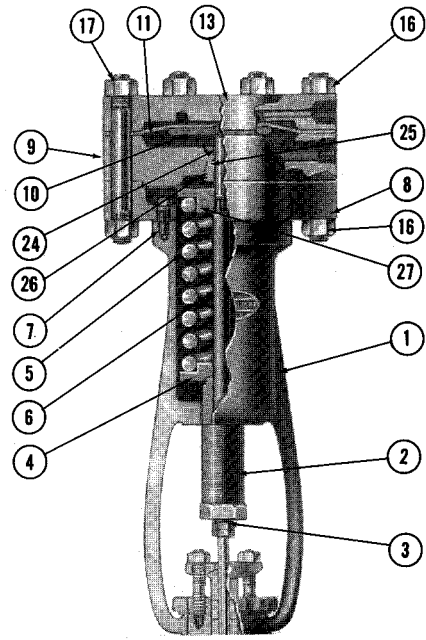
For temperatures over the rating of the diaphragm material, the regulator must be mounted with the actuator below the centerline of the regulator body. The diaphragm will be protected from the high temperature by a condensate barrier in the sensing line and actuator diaphragm case. If installed otherwise, an adequate condensate barrier must be incorporated. Consult factory for more information.

Teflon diaphragm protectors are available for applications where the process fluid and standard diaphragm are not compatible.

**Differential Pressure Actuators for
Regulator Models 525-50, 535H-50, 526-50**

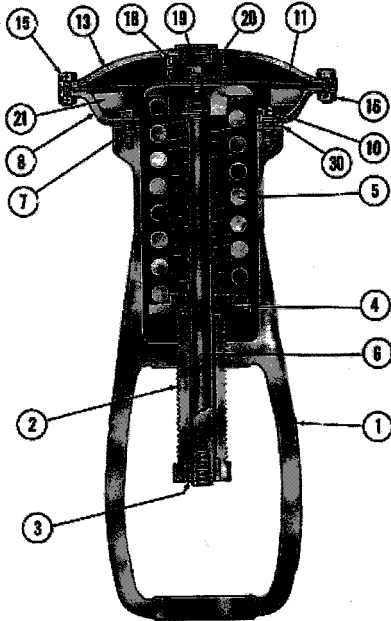


Low Pressure Size 4 and 5

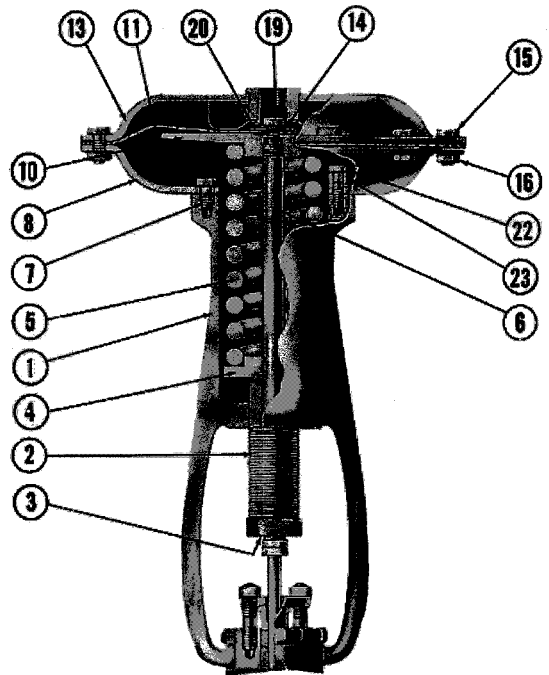


High Pressure Size 3 1/2, 4 and 5

**Spring Diaphragm Actuators for
Regulator Models 525, 535H, 526**



Case Size 3 1/2, 4 and 5



Case Size 9

Ref. No.	Description	Material
1	Yoke	Cast Iron
2	Spring Adjuster	Free Cutting Steel
3	Bushing (Incl. in Ref. 2)	Sintered Copper Alloy
4	Spring Seat (Lower)	Carbon Steel
5	Actuator Spring	Carbon Spring Steel
6	Actuator Stem	Free Cutting Steel
	Spring Diaphragm Cases Differential Pressure Cases	Free Cutting Steel Stem & Plate Welded Stem Cad. Plated
7	Cap Screw	Carbon Steel
8	Diaphragm Case (Lower)	
9	Diaphragm Chamber (Differential Actuators)	
10	Actuator Plate	
11	Diaphragm	Neoprene with Nylon Insert Viton with Dacron Fabric (Optional)
12	Upper Diaphragm Plate (4 and 5 LP Differential)	Carbon Steel
13	Upper Diaphragm Case	
14	Diaphragm Washer	
15	Cap Screw	
16	Nut	
17	Stud (3 $\frac{1}{2}$, 4, 5 High Pressure Differential)	Chrome Molybdenum Steel
18	Stop Cup (3 $\frac{1}{2}$, 4, 5 Spring Diaphragm)	Carbon Steel
19	Cap Screw (Spring Diaphragm)	Carbon Steel
20	Dynaseal Washer	Neoprene Bonded to Metal
21	Reducing Ring (3 $\frac{1}{2}$, 4 Spring Diaphragm)	Carbon Steel
22	Stop Screw (9 Spring Diaphragm)	
23	Stop Spacer (9 Spring Diaphragm)	
24	Plunger Subassembly (Differential Actuators)	316 Stainless Steel Stem welded to Carbon Steel Plate
25	O-ring (Differential Actuators)	Buna-N Rubber
26	O-ring Retainer (Differential Actuator)	Bronze
27	Spring Seat (Upper)	Included in Ref. 6 Differential Pressure Cases
28	Locknut (4, 5 LP Differential)	Carbon Steel
29	Adapter - Not Shown (4, 5 HP Differential)	Free Cutting Steel
30	Spacer Ring 3 $\frac{1}{2}$ Spring Diaphragm)	Carbon Steel

Part Numbers

Spring Diaphragm Actuators for Valve Models 525 and 535H Reducing and Model 526 Back Pressure

Actuator Part Number	Range psi	Case ^① Size	Max. Static Pressure psi
010901-001-999	1/2 - 3	9	60
010901-003-999	2 - 10	9	60
010901-005-999	6 - 20	9	60
010901-007-999	15 - 40	9	60
010900-003-999	30 - 75	5	250
010900-001-999	60 - 125	4	250
010900-005-999	80 - 250	3 1/2	250
④ 010900-061-999	150 - 300	-	900
④ 010900-062-999	150 - 450	-	900
④ 010900-013-999	400 - 750	-	900

Differential Pressure Actuators for Regulator Models 525 and 535H Reducing and Model 526 Back Pressure

Actuator Part Number	Range psi	Case ^② Size	Max. Static Pressure psi
010901-017-999	1/2 - 3	9	60
010900-038-999	3 - 12	5	250
010900-042-999	10 - 35	5	250
010901-015-999	15 - 40	9	60
010900-044-999	30 - 75	5	250
010900-046-999	60 - 125	4	250
010901-063-999	60 - 125	4	350
010901-064-999	80 - 250	3 1/2	350
Actuator Part Number	Range psi	Case ^③ Size	Max. Static Pressure psi
010900-039-999	3 - 15	5	600
010900-040-999	5 - 30	4	1000
010901-041-999	10 - 30	3 1/2	1500
010900-043-999	10 - 60	4	1000
010900-045-999	30 - 85	5	600
010900-047-999	75 - 185	3 1/2	1500
010900-048-999	100 - 330	3 1/2	1500

① Spring Diaphragm

② Low Pressure Differential Case

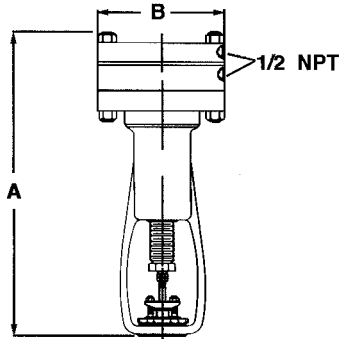
③ High Pressure Differential Case

④ Consult factory for application information. C_v is reduced on regulators size 2 1/2" and above, please consult factory.

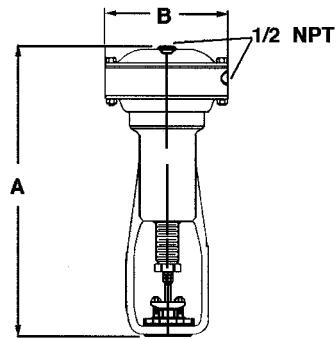
Diaphragms

Material	Temperature Range
Neoprene with Nylon Insert (Standard)	-25°F to +180°F
Viton with Dacron Fabric (Optional)	-20°F to +400°F

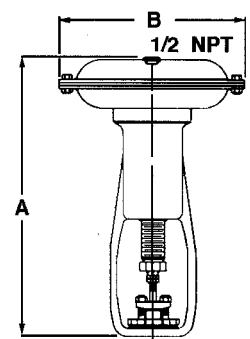
Dimensions (in.)



**High Pressure
Differential**



**Low Pressure
Differential**



Spring Diaphragm

Case	A	B
4, 5 Spring Diaphragm	16 ¹ / ₄	7 ⁵ / ₈
3 Spring Diaphragm	16 ¹ / ₂	7 ⁵ / ₈
9 Spring Diaphragm	16 ¹⁵ / ₁₆	11
Low Pressure Differential	18	7 ⁵ / ₈
High Pressure Differential	18 ³ / ₄	7 ³ / ₄

Weight (lbs)

Spring Diaphragm			Low Pressure Differential			High Pressure Differential		
Range	Case	Weight	Range	Case	Weight	Range	Case	Weight
1/2-3	9	32	1/2-3	9	39	3-15	5	62
2-10	9	34	3-12	5	44	5-30	4	65
6-20	9	34	10-35	5	44	10-30	3 ¹ / ₂	68
15-40	9	35	15-40	9	39	10-60	4	65
30-75	5	26	30-75	5	46	30-85	5	62
60-125	4	27	60-125	4	47	75-185	3 ¹ / ₂	66
80-250	3 ¹ / ₂	28	80-250	3 ¹ / ₂	34	100-330	3 ¹ / ₂	68