

Actuator Assembly

Type PA58 Multi-Spring Pneumatic Actuator

DESCRIPTION

The PA58 actuator is a pneumatic, multi-spring diaphragm actuator designed specifically to fit the RCV product line. The actuator can be used with a wide range of valve solutions from larger process valves to high pressure applications. The actuator is field reversible (without additional parts) allowing flexibility within the field. This actuator is available air-to-open or air-to-close. The yoke and the actuator housings are made of carbon steel and coated with epoxy for corrosion resistance.

FUNCTION

The PA58 actuator normally operates in response to a 24 psi range. The signal range causes the valve to stroke a distance of approximately 1 inch. Depending on the associated RCV valve, a positioner is needed if a shorter stroke is necessary.

STANDARD FEATURES

- Reversible in field (without additional parts)
- Heavy duty construction
- Powder coated for increased corrosion resistance
- Simple design for easy maintenance

MATERIALS

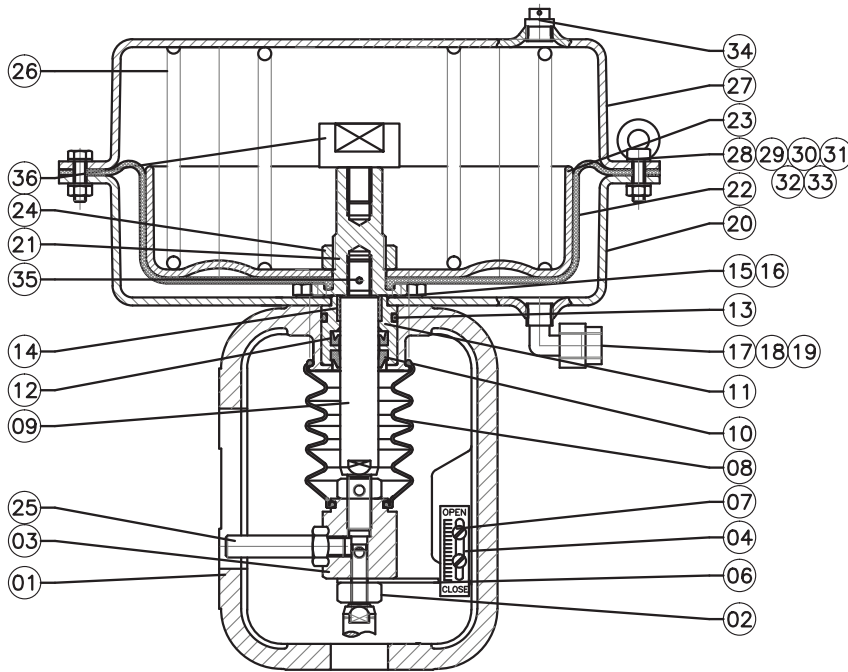
Top Cover	ASTM A620/IS 513
Bottom Cover	ASTM A620/IS 513
Working Diaphragm	Neoprene with backing fabric
Yoke	C.S. ASTM A216 Gr. WCB
Spindle	S.S. AISI 304
Working Diaphragm Holder	IS 2062 MS
Balancing Plate	ASTM A620/IS 513
Main Spring	Chrome Vanadium
Bellow	Nitrile
Rod Wiper Seal	Nitrile
O-Ring	Nitrile



SPECIFICATIONS

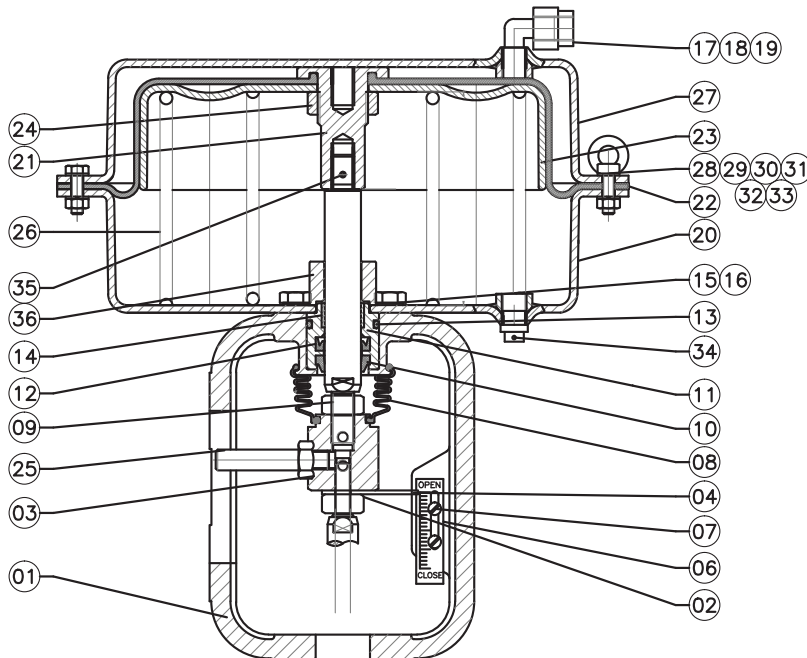
Actuator Type	Multi-spring diaphragm linear pneumatic actuator
Effective Diaphragm Area	58 in. ² (374 sq cm)
Stroke	1.5 in. max. (Smaller stroke available with positioner)
Operating Medium	Filtered dry instrument grade air supply or dry nitrogen
Spring (Bench) Loading	Adjustable (select ranges available)
Action	ATO or ATC (reversible without additional parts)
Operating Pressure Max.	65 psig @ 70° F (4.5 bar @ 21° C)
Diaphragm Pressure Max.	90 psig @ 70° F (6.2 bar @ 21° C)
Upper Ambient Temperature Limit	176° F (80° C) @ 30 psig
Lower Ambient Temperature Limit	-20° F (-29° C) @ 30 psig
Max. Surface Temperature	120° F (49° C) at 116 lb and room temperature or ambient temperature of 86° F (30° C)
Signal Range	Standard 3...27 psig (Others available with positioner)
Max. Noise Level	70 dB maximum measured on pressure level scale for the actuator (intermittent)
Weight	35 lb (16 kg)

AIR-TO-OPEN, NORMALLY CLOSED



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|-----------------------|------------------------------|
| 1. Yoke | 20. Bottom cover |
| 2. Hex locknut | 21. Working diaphragm holder |
| 3. Coupler | 22. Working diaphragm |
| 4. Indicator | 23. Balancing plate |
| 6. Stroke plate | 24. Hex locknut |
| 7. Pan head screw | 25. Anti-rotation rod |
| 8. Bellow | 26. Main spring |
| 9. Spindle | 27. Top cover |
| 10. Rod wiper seal | 28. Hex bolt |
| 11. Bush bottom cover | 29. Hex bolt |
| 12. Rod seal | 30. Plain washer |
| 13. O-Ring | 31. Hex nut |
| 14. Duro brush | 32. Hex locknut |
| 15. Plain washer | 33. Lifting bolt |
| 16. Hex head bolt | 34. Breather |
| 17. Elbow | 35. Split dowel pin |
| 18. Ferrule | 36. Stroke limiter |
| 19. Nipple nut | |

AIR-TO-CLOSE, NORMALLY OPEN



- | | |
|-----------------------|------------------------------|
| 1. Yoke | 20. Bottom cover |
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| 3. Coupler | 22. Working diaphragm |
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