

spirax/sarco®

PN 3000 Series Fail Closed Pneumatic Actuators (for LE Valves)

DESCRIPTION

A range of compact linear actuators having 5 diaphragm sizes for matching the requirements of all LE valve sizes at various differential pressures. Each actuator is fitted with a mechanical stroke indicator and incorporates a semi-rolling diaphragm, which gives good linearity over the operating stroke. The actuators may be converted to fail open operation in the field by changing a very small number of components and without the need of special tools. A manual handwheel is also available in all actuator sizes except PN 3200. These actuators are designed to operate with 2-port LE valves as detailed below.

Available Types:

Spring extend spindle, multi-spring yoke mounted actuators PN 3200, PN 3300, PN 3400, PN 3500, and PN 3600 series.

Actuator Type	Valve Type	
.75 inches (20 mm travel)	LE Series	1/2" to 2"
1.25 inches (30 mm travel)	LE Series	2-1/2" to 4"

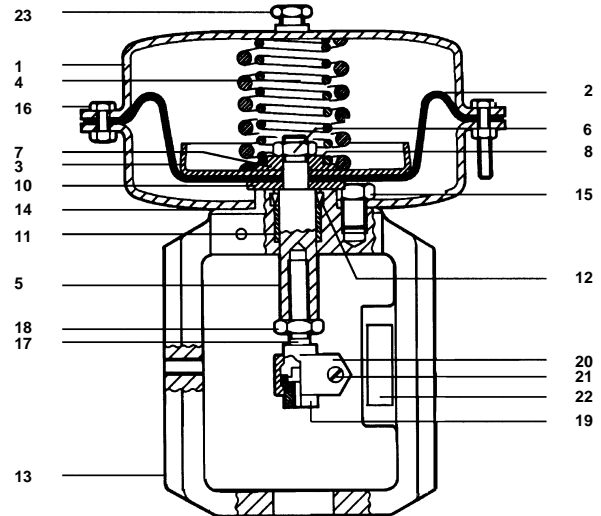
SPRING RANGES

Actuator Type	Spring Range	Travel
PN 3220		
PN 3320		
PN 3420	3 (6) to 15 (18) psi	.75 inches (20 mm)
PN 3520		
PN 3620		
PN 3430		
PN 3530	3 (6) to 15 (18) psi	1.25 inches (30 mm)
PN 3630		
PN 3225		
PN 3325		
PN 3425	6 to 30 psi	.75 inches (20 mm)
PN 3525		
PN 3625		
PN 3435		
PN 3535	6 to 30 psi	1.25 inches (30 mm)
PN 3635		
PN 3326	15 to 45 psi	.75 inches (20 mm)
PN 3426		
PN 3436	15 to 45 psi	1.25 inches (30 mm)
PN 3524	12 to 22 psi	.75 inches (20 mm)
PN 3624		
PN 3534	12 to 22 psi	.75 inches (20 mm)
PN 3634		

Air supply connection PN 3000 series, 1/4" NPT

TECHNICAL DATA

Temperature Range	14°F to 390°F (-20°C to 100°C)
	PN 3200/PN 3300 90 psi
Maximum Operating Pressure	PN 3400 60 psi
	PN 3500/PN 3600 40 psi



CONSTRUCTION MATERIALS

No.	Part	Material
1	Diaphragm Housing	Pressed Steel
2	Diaphragm	Reinforced Nitrile Rubber
3	Diaphragm Plate	Pressed Steel
4	Springs	Spring Steel
5	Spindle	Stainless Steel
6	Locknut	Stainless Steel
7	Spacer	Zinc Plated Steel
8	'O' Ring	Rubber
9	Spring Guide	Zinc Plated Steel
10	Diaphragm Clamp	Zinc Plated Steel
11	Bearing	Bronze
12	'V' Ring	Rubber
13	Yoke	Cast Iron
14	Gasket	Non-asbestos Fiber
15	Fixing Screws	Steel
16	Housing Bolts and Nuts	Steel
17	Top Adaptor	Steel
18	Locknut	Steel
19	Bottom Adaptor	Steel
20	Connectors	Stainless Steel
21	Connectors, Bolts and Nuts	Stainless Steel
22	Travel Indicator	Aluminum
23	Cap (with vent hole)	Plastic

*A spring guide is provided on larger sizes.

Local regulation may restrict the use of this product below the conditions quoted. Limiting conditions refer to standard connections only.
In the interests of development and improvement of the product, we reserve the right to change the specification.

TIS 1.515 US 03.98

PN 3000 Series Fail Closed Pneumatic Actuators (for LE Valves)

DIFFERENTIAL PRESSURES FOR LE VALVES AND PN 3000 SERIES ACTUATORS.

LE VALVES

Valve Size	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	4"
Travel mm	20 mm (.75")						30 mm (1.25")		
Standard Cvs	4.7	7.4	11.7	18.7	29	42	74	117	187

PN 3000 SERIES ACTUATORS (SPRING EXTEND SPINDLE)

Actuator	Spring Range		Minimum Air Pressure	Positioner Required*	Maximum Differential Pressure (psi)								
	Closed	Open			235	165	85	40	-	-	-	-	-
PN 3220	3	15	20	Optional	235	165	85	40	-	-	-	-	-
PN 3225	6	30	35	Optional	235	235	200	100	55	30	-	-	-
PN 3320	3	15	20	Optional	235	235	195	95	50	30	-	-	-
PN 3325	6	30	35	Optional	235	235	235	210	120	70	-	-	-
PN 3326	15	45	50	Yes	235	235	235	235	235	200	-	-	-
PN 3420	3	15	20	Optional	-	-	235	150	85	50	-	-	-
PN 3425	6	30	35	Optional	-	-	235	235	190	115	-	-	-
PN 3426	15	45	50	Yes	-	-	235	235	235	235	-	-	-
PN 3430	3	15	20	Optional	-	-	-	-	-	25	-	-	-
PN 3435	6	30	35	Optional	-	-	-	-	-	60	40	25	-
PN 3436	15	45	50	Yes	-	-	-	-	-	180	115	70	-
PN 3520	3	15	20	Optional	-	-	-	230	135	80	-	-	-
PN 3525	6	30	35	Optional	-	-	-	235	235	175	-	-	-
PN 3524	11	22	30	Yes	-	-	-	235	235	235	-	-	-
PN 3530	3	15	20	Optional	-	-	-	-	-	40	-	-	-
PN 3535	6	30	35	Optional	-	-	-	-	-	100	60	40	-
PN 3534	11	22	30	Yes	-	-	-	-	-	210	135	85	-
PN 3620	3	15	20	Optional	-	-	-	-	190	115	-	-	-
PN 3625	6	30	35	Optional	-	-	-	-	235	235	-	-	-
PN 3624	11	22	30	Yes	-	-	-	-	235	235	-	-	-
PN 3630	3	15	20	Optional	-	-	-	-	-	65	40	-	-
PN 3635	6	30	35	Optional	-	-	-	-	-	145	90	60	-
PN 3634	11	22	30	Yes	-	-	-	-	-	235	195	125	-

* Applies to modulating duty only.

INSTALLATION

Actuators should be mounted on LE valves with the stem in a vertical position. Installation and Maintenance Instructions are supplied with the product.

SPARE PARTS

Information regarding spare parts available is given on TIS 1.517.

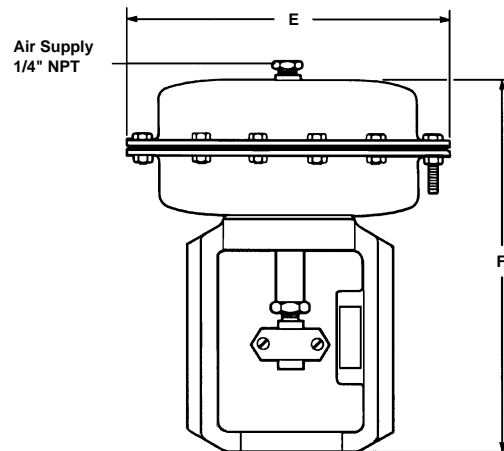
HOW TO ORDER

1 PN 3320 pneumatic actuator

Note: Actuator code should be suffixed 'H' where handwheel is required, i.e. PN 3320 H.

DIMENSIONS (NOMINAL) IN INCHES AND MILLIMETERS

Actuator	E	F	Weight
PN 3200 Series	8.2 (209)	9.5 (240)	15.4 lb (7.2 kg)
PN 3300 Series	11.2 (285)	10.4 (264)	24.2 lb (11.2 kg)
PN 3420 Series	13.2 (336)	10.4 (263)	44 lb (20.0 kg)
PN 3430 Series	13.2 (336)	12.8 (328)	44 lb (20.0 kg)
PN 3520 Series	15.9 (405)	11.6 (294)	48.5 lb (22.6 kg)
PN 3530 Series	15.9 (405)	19.4 (367)	48.5 lb (22.6 kg)
PN 3620 Series	18.3 (465)	15.7 (400)	83.7 lb (38.0 kg)
PN 3630 Series	18.3 (465)	15.7 (400)	83.7 lb (38.0 kg)



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