

PPRA

PNEUMATIC ROTARY ACTUATOR

DESCRIPTION :

Pennant Pneumatic Rotary Actuators are spring loaded Diaphragm Actuators used with high performance Rotary Valves suitable for wide range of industrial applications such as high pressure and low-pressure steam, clean liquids, fine particle slurry media, sandy media and corrosive liquids gasses and erosive and abrasive slurries. These actuators can be used in industrial applications with appropriate surface protection for regulating and on/off control applications.

FEATURES :

- Broad array of travel and spring range
- Rapid response
- Smooth operation, constant linearity
- Negligible hysteresis
- Sturdy design
- Simple on-site fail action change without any additional parts

ACTUATOR DIMENSIONS :

Nominal in inch



DESIGN FLEXIBILITY :

Split coupling for simple attachment to plug stem. Unique design of the actuator enables it to be field reversible.

Compatible with a range of valve sizes and accessories

RANGE AVAILABLE :

R1-40 in²

R2-55 in²

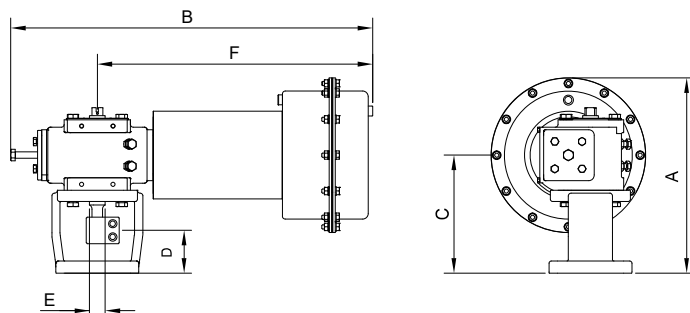
R3-85 in²

AIR CONNECTION :

R1-1/4" NPT

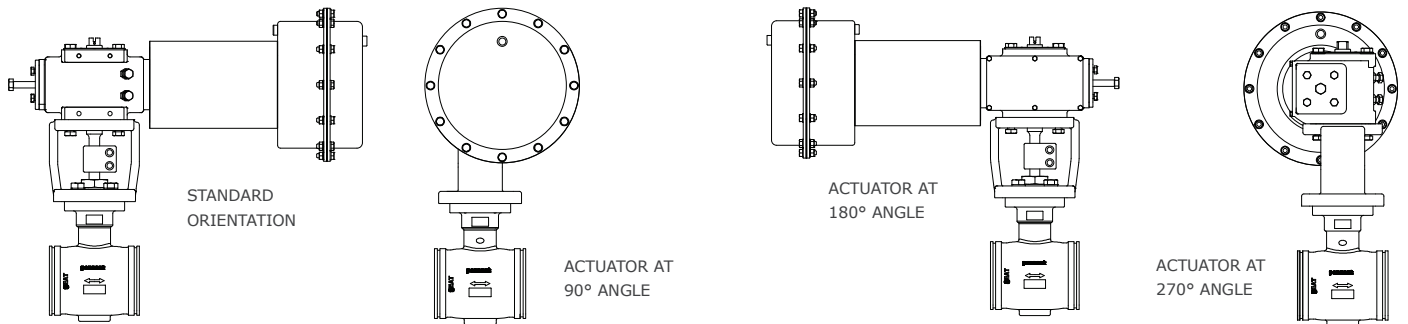
R2-1/4" NPT

R3-1/2" NPT



ACTUATOR SIZE	YOKE	VALVE SIZES	DIAPHRAGM AREA in ²	A	B	C	D	E	F	WEIGHT (LBS)
R1	Y1	1", 1.5" & 2"	40	10.6	16.6	5.5	2.1	0.78	13.9	29.1
R2	Y2	3" & 4"	55	13.9	25.4	8.4	3.0	1.1	19.3	79.6
R3	Y3	3" & 4"	85	16.5	27.2	9.2	3.0	1.41	21.4	109.8
	Y4	6" & 8"		19.0		12.0	5.0			114.8

ACTUATOR MOUNTING POSITIONS :



ACTUATOR SIZING :

MAXIMUM SHUT OFF DIFFERENTIAL PRESSURE (PSIG)

					FULL PORT (FLOW TO OPEN & FLOW TO CLOSE)														
ACTUATOR	DIAPHRAGM AREA in²	STROKE	SPRING USED	CONTROL PRESSURE PSIG	DIRECT (AIR TO OPEN)					REVERSE (AIR TO CLOSE)									
					1"	1.5"	2"	3"	4"	6"	8"	1"	1.5"	2"	3"	4"	6"	8"	
R1	40	60°	S20	20.5	1440	500	100						1200	75	20				
			S35	43.5	1440	1440	800					1440	1440	800					
			S60	58.0	1440	1440	1440					1440	1440	1440					
R2	55	60°	S20	20.5				250	25							150	20		
			S35	43.5				775	100							560	100		
			S60	58.0				1440	540							1440	425		
R3	85	60°	S20	20.5				600	100							600	100		
			S35	43.5				1440	400	25						1440	400	25	
			S60	58.0						200	25							200	25

					60%, 40%, 20% REDUCED PORT (FLOW TO OPEN & FLOW TO CLOSE)														
ACTUATOR	DIAPHRAGM AREA in²	STROKE	SPRING USED	CONTROL PRESSURE PSIG	DIRECT (AIR TO OPEN)					REVERSE (AIR TO CLOSE)									
					1"	1.5"	2"	3"	4"	6"	8"	1"	1.5"	2"	3"	4"	6"	8"	
R1	40	60°	S20	20.5	1440	1440	860					1440	1440	860					
			S35	43.5	1440	1440	1440				1440	1440	1440						
			S60	58.0	1440	1440	1440				1440	1440	1440						
R2	55	60°	S20	20.5				400	40							240	30		
			S35	43.5				1440	200						1440	200			
			S60	58.0				1440	1440					1440	1440				
R3	85	60°	S20	20.5				960	160						960	160			
			S35	43.5					640	120						640	120		
			S60	58.0						690	295							690	295