



PSD SERIES DOUBLE ACTING PNEUMATIC ACTUATORS

FOR BALL VALVES UP TO 6" / DN150
 BUTTERFLY VALVES UP TO 12" / DN300

KEY FEATURES

- Scotch Yoke Quarter-Turn Design - Less Friction, More Efficient than Rack & Pinion
- Ideal for Corrosive Atmosphere and Environments
- Stainless Steel Drive Shaft/Indicator Shaft and Stainless Steel Hardware Standard
- Adjustable 0° Stop
- Smooth Rotation - No Teeth or Gears
- Permanent Lubrication
- Lower Air Consumption than Rack & Pinion
- Smaller Size Compared to Equivalent Rack & Pinion Torque Output
- Position Indicator
- Namur-Standard Top-Works Mounting
- Namur-Standard Solenoid Mounting
- ISO5211 Standard Mounting Base

OPTIONS

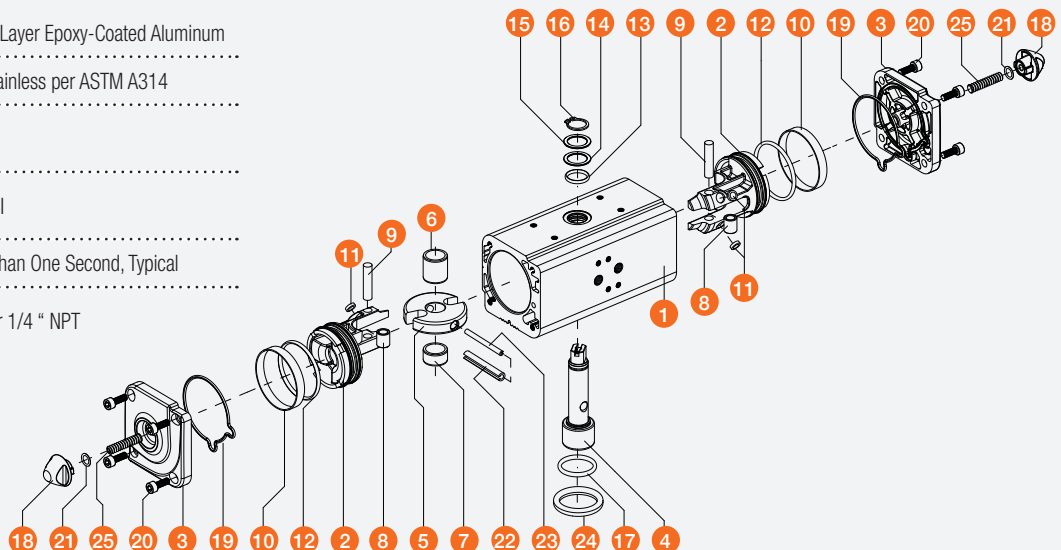
- Solenoid Valves with Optional Voltages
- Positioners, Limit Switches

TECHNICAL INFORMATION

SPECIFICATIONS

HOUSING	Three-Layer Epoxy-Coated Aluminum
OUTPUT SHAFT	303 Stainless per ASTM A314
NOMINAL AIR PRESSURE	80 PSI
MAXIMUM AIR PRESSURE	120 PSI
CYCLE TIME	Less Than One Second, Typical
AIR PORT CONNECTIONS	1/8" or 1/4" NPT

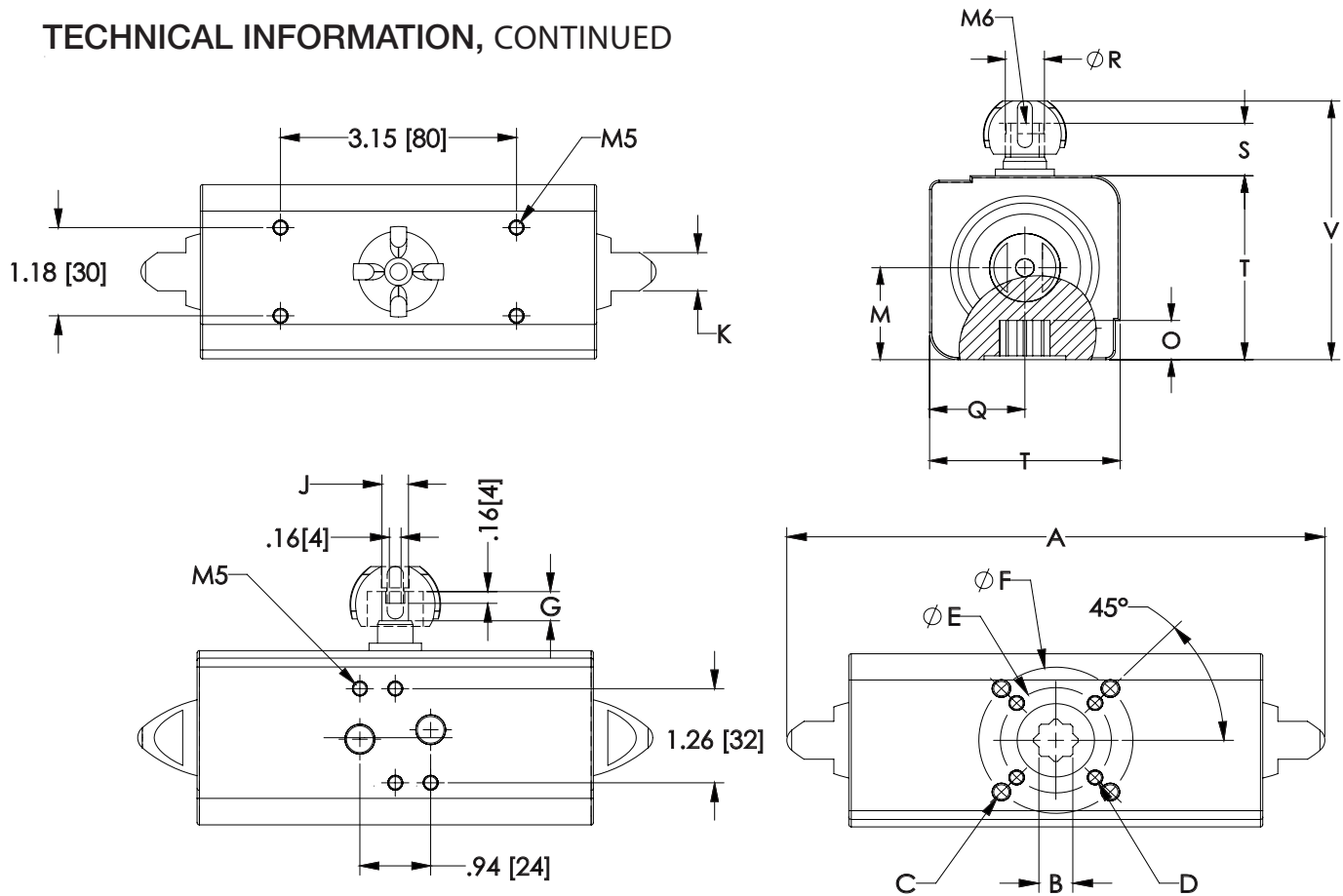
EXPLODED VIEW



PSD Series Double Acting Pneumatic Actuators

FOR BALL VALVES UP TO 6" / DN150
BUTTERFLY VALVES UP TO 12" / DN300

TECHNICAL INFORMATION, CONTINUED



ACTUATION AND CONTROLS

DIMENSIONS

	PSD015	PSD030	PSD045	PSD060	PSD180	PSD240	PSD360	PSD480
	in / mm	in / mm	in / mm	in / mm	in / mm	in / mm	in / mm	in / mm
ISO	F03/F05	F03/F05	F03/F05	F05/F07	F07/F10	F07/F10	F07/F10	F10/F12
A	6.26 / 159.1	6.86 / 174.3	7.42 / 188.5	7.8 / 198.1	11.41 / 289.9	12.35 / 313.6	13.36 / 339.3	15.26 / 387.7
B	0.43 / 11.0	0.43 / 11.0	0.43 / 11.0	0.55 / 14.0	0.87 / 22.0	0.87 / 22.0	0.87 / 22.0	1.06 / 27.0
C x depth	M6 X 9	M6 X 9	M6 X 9	M8 X 12	M10 X 15	M10 X 15	M10 X 15	M12 X 18
D x depth	M5 X 8	M5 X 8	M5 X 8	M6 X 9	M8 X 12	M8 X 12	M8 X 12	M10 X 15
E	1.42 / 36.0	1.42 / 36.0	1.42 / 36.0	1.97 / 50.0	2.76 / 70.0	2.76 / 70.0	2.76 / 70.0	4.02 / 102.0
F	1.97 / 50.0	1.97 / 50.0	1.97 / 50.0	2.76 / 70.0	4.02 / 102.0	4.02 / 102.0	4.02 / 102.0	4.92 / 125.0
G	0.39 / 10.0	0.39 / 10.0	0.51 / 13.0	0.51 / 13.0	0.63 / 16.0	0.67 / 17.0	0.75 / 19.0	0.75 / 19.0
J	0.31 / 8.0	0.35 / 9.0	0.39 / 10.0	0.39 / 10.0	0.59 / 15.0	0.59 / 15.0	0.75 / 19.0	0.75 / 19.0
K	0.51 / 13.0	0.51 / 13.0	0.51 / 13.0	0.51 / 13.0	0.87 / 22.0	0.87 / 22.0	0.87 / 22.0	1.06 / 27.0
M	1.10 / 28.0	1.24 / 31.5	0.67 / 17.0	1.48 / 37.7	2.22 / 56.5	2.37 / 60.1	2.44 / 62.0	2.87 / 72.9
O	0.52 / 13.2	0.52 / 13.2	0.52 / 13.2	0.65 / 16.5	0.98 / 24.8	0.98 / 24.8	0.96 / 24.3	1.16 / 29.5
Q	1.10 / 28.0	1.24 / 31.5	1.36 / 34.5	1.48 / 37.7	2.22 / 56.5	2.37 / 60.1	2.44 / 62.0	2.87 / 72.9
R	0.36 / 9.2	0.43 / 10.9	0.50 / 12.7	0.57 / 14.5	0.8 / 20.2	0.89 / 22.5	1.00 / 25.5	1.14 / 29.0
S	0.79 / 20.0	0.79 / 20.0	0.79 / 20.0	0.79 / 20.0	1.18 / 30.0	1.18 / 30.0	1.18 / 30.0	1.18 / 30.0
T	2.06 / 52.2	2.33 / 59.2	2.54 / 64.5	2.77 / 70.4	4.23 / 107.5	4.37 / 111.1	4.65 / 118.0	5.31 / 135
V	3.24 / 83	3.51 / 90	3.72 / 95	3.95 / 101	6.12 / 156	6.26 / 160	6.54 / 166	7.2 / 183
Weight (lbs/kgs)	1.65 / 0.75	2.20 / 1.00	2.65 / 1.20	3.52 / 1.6	10.12 / 4.6	11.88 / 5.4	14.3 / 6.5	21.12 / 9.6

PSD Series Double Acting Pneumatic Actuators

FOR BALL VALVES UP TO 6" / DN150
BUTTERFLY VALVES UP TO 12" / DN300

TECHNICAL INFORMATION, CONTINUED

ACTUATOR SPECIFICATIONS

	PSD015	PSD030	PSD045	PSD060	PSD180	PSD240	PSD360	PSD480
Torque Output (in-lb) @ 80psi	132	265	398	531	1593	2124	3186	4248
Air Port Connections	1/8" NPT							1/4" NPT
Air Consumption (cu. in.)	5.5	10.4	14.6	18.9	58.6	78.1	114	150
Stroke Time (seconds)	0.04	0.07	0.09	0.10	0.21	0.28	0.38	0.46
Nominal Air Pressure	80psi							
Maximum Air Pressure	120psi							
Operation	Scotch Yoke							

VALVE SELECTION CHART

SERIES / VALVE TYPE	SIZE	PSD015	PSD030	PSD045	PSD060	PSD180	PSD240	PSD360	PSD480
TBH, CVH, TBH-Z Series Ball Valves	1/2"	•							
	3/4"	•							
	1"	•							
	1-1/4"	•	•						
	1-1/2"	•	•						
	2"		•						
	2-1/2"			•					
	3"			•					
TWH, LAH Series Three Way Ball Valves	4"			•					
	6"			•					
	1/2"	•							
	3/4"	•							
	1"	•							
TW, LA Series Three Way Ball Valves	1-1/4"	•	•						
	1-1/2"	•	•						
	2"		•						
	2-1/2"			•					
BYV Series Butterfly Valves	3"		•						
	4"			•					
	2"		•						
	2-1/2"		•						
	4"				•				
	6"					•			
	8"						•		
	10"							•	
12"								•	

* Actuators shown with ideal torque and mounting considerations for Hayward valves. Other sizes may be available upon request.