The Moog Animatics PSC actuator is a belt-driven linear system with integrated guide rails, low backlash and high traverse speeds. These actuators are ideal for moving light loads at speeds beyond the reach of ball screw actuators. These fully integrated actuator products bring SmartMotor™ capabilities, ease of use, and speed to market to your actuator applications. They are designed for precise motion, long life and minimal maintenance, making them an ideal fit for applications in material handling, packaging, biomedical, semiconductor, life sciences and more. These actuators are available with strokes from 150 mm to 3000 mm in 50 mm increments (other lengths are available by special request). The PSC actuator is shipped preassembled with the NEMA 23 Moog Animatics SmartMotor of your choice *. The motor can be mounted on either side of the actuator for maximum design and mounting flexibility. These actuators can also be ordered as a complete T-Bot (vertical) or H-Bot (horizontal) two-axis gantry system.

*Due to inertial mismatch, SmartMotor models SM23165D and SM23165DT are not recommended for direct drive of the PSC actuators. The addition of a gearhead may be required for any application exceeding a 10:1 load to motor mismatch.

Key Features

- Extruded aluminum actuator body with T-slots
- Integrated belt tensioner
- One piece, machined, stress-proof, shafted pulley
- Zero-backlash, belt-to-pulley design
- Corrosion-resistant components

Key Benefits

- Save time on mounting
- Maintain positional accuracy if belt stretches
- Long service life
- No need for linear encoder to increase precision
- Suitable for splash-prone environments

Technical Specifications

PSC Size and Data			
Actuator Specifications		**Motor Sizing Information**	
Motion	Horizontal or Vertical	Weight of Drive Pulley, oz [kg]	4.7 [0.13]
Max. Speed - Horizontal [Vertical], mm/sec	1270 [635]	Weight of Idler Pulley, oz [kg]	4.3 [0.12]
Max. Load - Horizontal [Vertical], N	90 [90]	Weight of Cart, lb [kg]	0.4 [0.18]
Unidirectional Repeatability, µm	± 25	Weight of Belt, kg	((Travel in Meters x 2) + .32)
Bidirectional Repeatability, µm		Based on Travel Selected	x .04
Max. Moment Load, in-lb [Nm]	15 [1.7]	Coupling	Flexible Jaw
Positional Accuracy, mm/mm	0.12 per 300 stroke	Displacement/Rev, mm	105
Acceleration Maximum, g	5	Pulley Pitch Diameter, mm	33.42
Beam Dimensions, mm	28 x 38	Pulley Material/Width, mm	Steel, 12
Ultimate Tensile Strength of Belt, lb [N]	800 [3559]	Breakaway Torque, oz-in	12 – 14
Recommended Belt Running Load, lb [N]	200 [889]	Coefficient of Friction	0.25
Available Stroke, mm	150 – 3000 in 50 mm steps	Rolling Resistance, lb [kg]	0.008 [0.004]
Available Gear Reductions	None, 3:1, 5:1, 7:1, 10:1	**Weight**	
Overall Length	Stroke + 480	Unit Mass	1.6 + 0.0016 x (stroke, mm) + (motor mass, kg)

Part Numbering System Guide

For more details, see **www.animatics.com/psc**
Also, see the Part Number Generator at **www.animatics.com/pngenerator**

PSC - ☐ - ☐ - ☐☐

SERIES

STROKE
150 – 3000 mm

REDUCTION
0 = None
3 = 3:1
5 = 5:1
7 = 7:1
10 = 10:1

INPUT SIZE
A = .25 inches
B = .375 inches

ORIENTATION
R = Right
L = Left

Overview

Software

C5 D-Style

C5 M-Style

C6 M-Style

C6 Low-Cost

Cables, Etc.

Actuators

Gearheads

Power Supplies