Roll-2-Roll Technologies

PRODUCT BROCHURE

BLA Series

Ball screw actuators for low-to-medium load terminal guides.

Key Features

- **Ball screw drive** – converts rotary motion to linear motion with minimal backlash
- **SCU6x only** – BLA-015 and BLA-030 use the SCU6x MD driver. BLA-067 uses the SCU6x MxD for its higher current. BLA is not supported on the SCU5 with MC QD drivers
- **Front and rear spherical bearing mounting** – accommodates misalignment and angular deflection, reducing side loading on the ball screw
- **BLA-015-0600-TG** – 150 lbf thrust, 6 in stroke, 4 A at 24 VDC for light terminal guides and slitter carriages
- **BLA-030-0600-TG** – 300 lbf thrust, 6 in stroke, 4 A at 24 VDC for medium-load coating heads and shifting stands
- **BLA-067-0600-TG** – 650 lbf nominal thrust, rated maximum 3,000 N (675 lbf), 6 in stroke, 6 A at 24 VDC or 48 VDC, for terminal guide applications needing the highest BLA thrust rating
- **Load capacity by bearing type** – nominal thrust ÷ friction coefficient; see the load table under Specifications and the actuator sizing calculator

Benefits

- **Sized for low-to-medium loads** – the BLA Series covers slitter carriages, coating heads, and light shifting stands, with 150, 300, and 650 lbf nominal models. The BLA-067's rated maximum is 3,000 N (675 lbf)
- **Load sized to your bearings** – on rolling bearings at ? 0.1, about 1,500 lb (BLA-015), 3,000 lb (BLA-030) or 6,500 lb (BLA-067); see the load table
- **No custom engineering** – three standard models cover the most common low-to-medium load terminal guide applications
- **Floating-mount replacement** – pivot, rod eye, and clevis mounts fit floating (TG) structures when replacing a pneumatic cylinder or worn actuator. Confirm the structure is floating (TG) first. A fixed (RF) structure needs LHS-RF, and the wrong mount type damages the actuator

Specifications

Specification	BLA-015-0600-TG	BLA-030-0600-TG	BLA-067-0600-TG
Thrust (Nominal)	150 lbf	300 lbf	650 lbf nominal; rated maximum 3,000 N (675 lbf)
Stroke Length	6 in (150 mm)	6 in (150 mm)	6 in (150 mm)
Drive Voltage	24 VDC	24 VDC	24/48 VDC
Motor Current	4 A	4 A	6 A
Power Source	SCU6x MD	SCU6x MD	SCU6x MxD
Motor Type	Brushless Bi-polar Stepper, 1.8° resolution		
Actuator Type	Ball Screw		
Mounting	Pivot / Rod Eye / Clevis		

Load capacity by bearing type

Model	Nominal thrust	? 0.06 rolling bearings (standard)	? 0.1 rolling bearings, with margin	? 0.25 sliding bearings
BLA-015	150 lbf	2,500 lb (1,133 kg)	1,500 lb (680 kg)	600 lb (272 kg)
BLA-030	300 lbf	5,000 lb (2,267 kg)	3,000 lb (1,360 kg)	1,200 lb (544 kg)
BLA-067	650 lbf	10,833 lb (4,913 kg)	6,500 lb (2,948 kg)	2,600 lb (1,179 kg)

Load = nominal thrust ÷ friction coefficient ?. Horizontal travel at constant speed, no web tension; acceleration and breakaway not included. ? 0.06 and 0.1 are conservative design coefficients for rolling bearings (0.1 adds margin for performance and service life); 0.25 is for sliding bearings. Size a real application with the actuator sizing calculator.

Applications

- Slitter carriages – lateral positioning for slitter knife assemblies
- Coating heads – alignment of coating applicators across the web
- Light shifting stands – lateral shifting of light rolls and stands

- Terminal guides – low-to-medium load positioning for winders and rewinders

Supporting Documentation

Manuals (2)

- Servo Center Servo Installation
- Unwind/Rewind Installation Checklist

2D Drawings (10)

- BLA-067-0600-TG
- BLA-0xx-0600-TG 2D Drawing
- LHS-005-0125-LP: 2D Drawing (dxf)
- LHS-005-0400-LP: 2D Drawing (dxf)
- LHS-005-0xxx-LP: 2D Drawing (pdf)
- LHS-015-0150-WG: 2D Drawing (pdf)
- LHS-020-0xxx-RF: 2D Drawing (dxf)
- LHS-020-0xxx-RF: 2D Drawing (pdf)
- LHS-030-xxxx-RF: 2D Drawing (pdf)
- RLA-050-0600-TG: 2D Drawing (pdf)

3D Models (1)

- BLA-015-0600-TG or BLA-030-0600-TG

Wiring Diagrams (5)

- Power Supply Regen Clamp Wiring
- SCU5 MD Wiring with MC QD 1141/1140/1240 + Web Guide Actuator
- SCU5 MD Wiring with MC QD 1180/1181/1211/1230/1231/1260 + Regen Clamp + Unwind/Rewind Actuator
- SCU5 MD Wiring with MC QD 1180/1181/1211/1230/1231/1260 + Web Guide Actuator
- SCU6x MxD Wiring Diagram with Unwind/Rewind (Small Load)

Scan for datasheets, 3D models & full documentation
https://r2r.tech/products/actuators/bla

Ready to Get Started?

Contact our experts to discuss how this product fits your application.

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