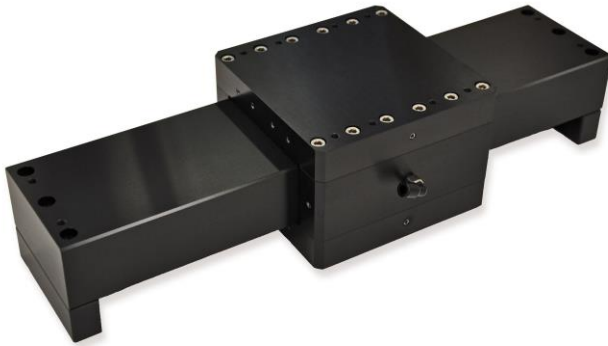


PIglide RB Linear Air Bearing Module

Friction Free, Ideal for Positioning, Scanning, Metrology



A-10x

- Ideal for scanning applications or high-resolution positioning
- Cleanroom compatible
- Size of the motion platform to 300 mm × 300 mm
- Travel ranges to 1 m
- Load capacity to 775 kg
- Straightness / flatness to 0.5 μm per 25 mm
- Pitch / roll / yaw to 1.2 μrad per 25 mm

Linear air bearings of the PIglide RB series are exactly right for applications that need smooth, precise, linear motion. The air bearing modules replace ball or crossed roller guides and are easy to integrate. They offer improved straightness, angular deviation, and repeatability compared to stage units with ball guides, especially for travel ranges longer than 100 mm. Because air bearings are basically friction free, they work without stiction on approach or during operation, even under maximum load. Air bearings work without making contact and with purified air, and are virtually maintenance and wear free.

Accessories and options

- Air preparation kit
- Mounting Feet
- Custom configurations on request
- Several motion platforms on one guide
- Constructions with moving guide

Specifications

	Size of the motion platform / mm × mm	Travel range / mm	Vertical load capacity* / N	Lateral load capacity* / N
A-101	50 × 50	50 to 200	130	75
A-102	50 × 100	50 to 300	260	260
A-103	75 × 75	50 to 300	350	195
A-104	75 × 115	50 to 300	540	540
A-105	100 × 100	50 to 300	630	370
A-106	100 × 150	50 to 600	950	950
A-107	150 × 150	50 to 750	1580	790
A-108	200 × 200	50 to 1000	2950	1475
A-109	300 × 300	50 to 1000	7600	2210

	Travel ranges to 300 mm	Travel ranges to 600 mm	Travel ranges to 1000 mm
Straightness / flatness**	±1.25 µm	±2.5 µm	±5 µm
Straightness / flatness, per 25 mm travel range**	±0.25 µm	±0.25 µm	±0.25 µm
Position stability**	±0.05 µm	±0.05 µm	±0.05 µm
Pitch / yaw, per 25 mm travel range**	1.2 µrad	1.2 µrad	1.2 µrad
Pitch / yaw, overall**	10 µrad	20 µrad	30 µrad

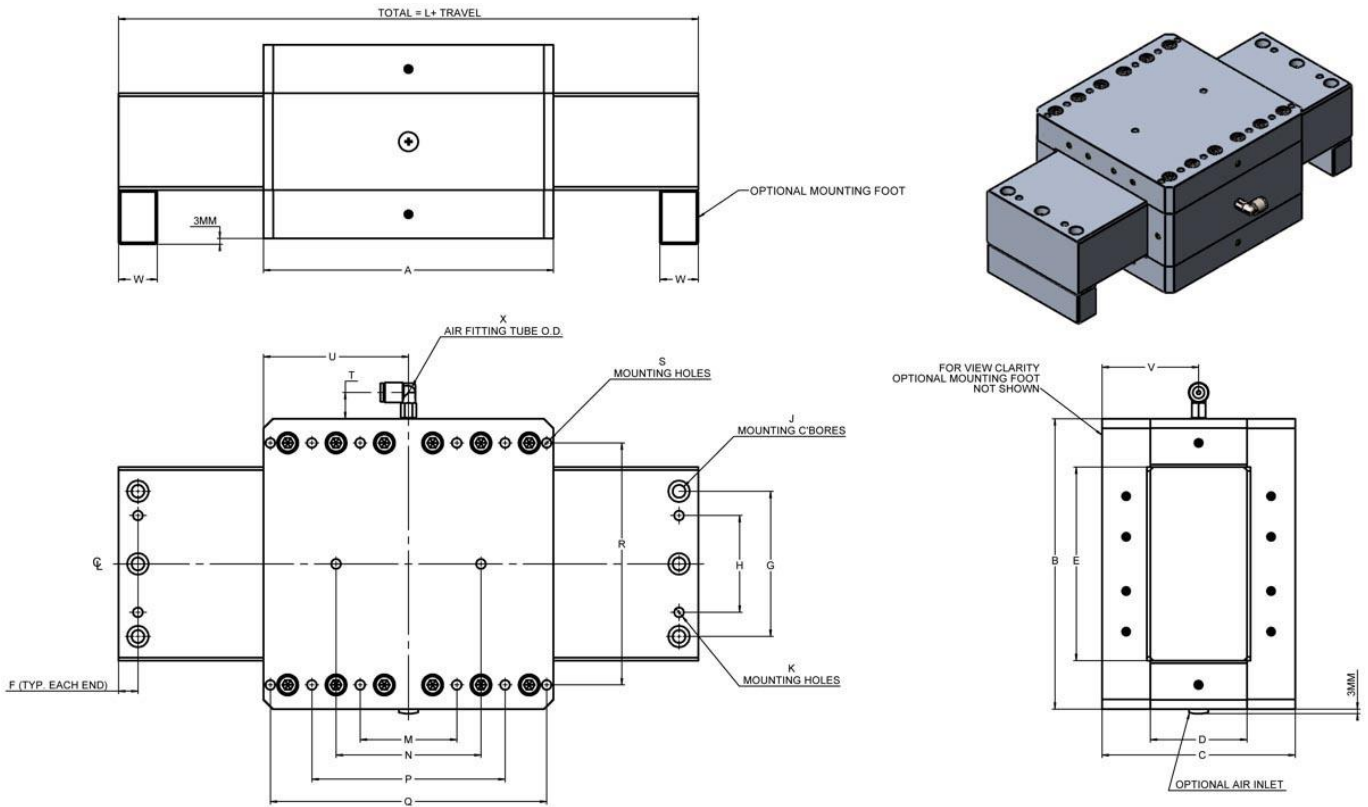
	A-10x.xxx
Operating pressure	80 psi (550 kPa) nominal
Air consumption	<1.0 SCFM (28 SLPM)
Air quality	Clean (filtered to 1.0 µm or better) - ISO 8573-1 Class 1 Oil free - ISO 8573-1 Class 1 Dry (-15 °C dew point) - ISO 8573-1 Class 3
Materials	Hardcoat aluminum, stainless steel fasteners

* The specified load capacities assume an operating pressure of 80 psi (550 kPa). For an alternative operating pressure, contact PI for determining other load capacities.

** Precision specifications depending on load, orientation, and external forces on the bearing. Contact PI for application-specific parameters.

Ask about custom designs!

Drawings and Images



Model	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	U	V	W	X
A-101	50	50	35	15	25	5	15	CL	4x M3 C'BORE	2x M3	80	15	40	N/A	N/A	40	6x M3	12	21	30	10	4 (5/32")
A-102	100	50	45	25	25	5	15	CL	4x M3 C'BORE	2x M3	130	15	40	60	N/A	40	10x M3	12	46	40	10	6 (1/4")
A-103	75	75	55	25	45	7.5	30	12.5	4x M5 C'BORE	2x M5	115	35	N/A	N/A	N/A	60	4x M5	14	37.5	47.5	15	6 (1/4")
A-104	115	75	75	45	45	7.5	30	12.5	4x M5 C'BORE	2x M5	155	50	N/A	N/A	N/A	60	4x M5	14	57.5	67.5	15	6 (1/4")
A-105	100	100	75	35	60	10	40	20	4x M6 C'BORE	2x M6	150	50	N/A	N/A	N/A	80	4x M6	14	50	37.5	20	6 (1/4")
A-106	150	100	100	60	60	10	40	20	4x M6 C'BORE	2x M6	200	50	N/A	110	N/A	80	8x M6	14	75	50	20	6 (1/4")
A-107	150	150	100	50	100	10	75	50	6x M6 C'BORE	4x M6	200	50	N/A	110	N/A	125	8x M6	14	75	50	20	6 (1/4")
A-108	200	200	130	70	140	10	100	50	6x M6 C'BORE	4x M6	250	50	N/A	150	N/A	170	8x M6	14	100	65	20	6 (1/4")
A-109	300	300	140	70	240	10	200	100	6x M6 C'BORE	4x M6	350	50	N/A	150	250	270	12x M6	14	150	65	20	6 (1/4")

A-10x.xxx, dimensions in mm

Ordering Information

Size of the Motion Platform 50 mm × 50 mm

A-101.050

Plglide RB linear air bearing module, 50 mm × 50 mm motion platform, travel range 50 mm

A-101.100

Plglide RB linear air bearing module, 50 mm × 50 mm motion platform, travel range 100 mm

A-101.150

PIglide RB linear air bearing module, 50 mm × 50 mm motion platform, travel range 150 mm

A-101.200

PIglide RB linear air bearing module, 50 mm × 50 mm motion platform, travel range 200 mm

Size of the Motion Platform 50 mm × 100 mm**A-102.050**

PIglide RB linear air bearing module, 50 mm × 100 mm motion platform, travel range 50 mm

A-102.100

PIglide RB linear air bearing module, 50 mm × 100 mm motion platform, travel range 100 mm

A-102.150

PIglide RB linear air bearing module, 50 mm × 100 mm motion platform, travel range 150 mm

A-102.200

PIglide RB linear air bearing module, 50 mm × 100 mm motion platform, travel range 200 mm

A-102.300

PIglide RB linear air bearing module, 50 mm × 100 mm motion platform, travel range 300 mm

Size of the Motion Platform 75 mm × 75 mm**A-103.050**

PIglide RB linear air bearing module, 75 mm × 75 mm motion platform, travel range 50 mm

A-103.100

PIglide RB linear air bearing module, 75 mm × 75 mm motion platform, travel range 100 mm

A-103.150

PIglide RB linear air bearing module, 75 mm × 75 mm motion platform, travel range 150 mm

A-103.200

PIglide RB linear air bearing module, 75 mm × 75 mm motion platform, travel range 200 mm

A-103.300

PIglide RB linear air bearing module, 75 mm × 75 mm motion platform, travel range 300 mm

Size of the Motion Platform 75 mm × 115 mm**A-104.050**

PIglide RB linear air bearing module, 75 mm × 115 mm motion platform, travel range 50 mm

A-104.100

PIglide RB linear air bearing module, 75 mm × 115 mm motion platform, travel range 100 mm

A-104.150

PIglide RB linear air bearing module, 75 mm × 115 mm motion platform, travel range 150 mm

A-104.200

PIglide RB linear air bearing module, 75 mm × 115 mm motion platform, travel range 200 mm

A-104.300

PIglide RB linear air bearing module, 75 mm × 115 mm motion platform, travel range 300 mm

Size of the Motion Platform 100 mm × 100 mm**A-105.050**

PIglide RB linear air bearing module, 100 mm × 100 mm motion platform, travel range 50 mm

A-105.100

PIglide RB linear air bearing module, 100 mm × 100 mm motion platform, travel range 100 mm

A-105.150

PIglide RB linear air bearing module, 100 mm × 100 mm motion platform, travel range 150 mm

A-105.200

PIglide RB linear air bearing module, 100 mm × 100 mm motion platform, travel range 200 mm

A-105.300

PIglide RB linear air bearing module, 100 mm × 100 mm motion platform, travel range 300 mm

Size of the Motion Platform 100 mm × 150 mm**A-106.050**

PIglide RB linear air bearing module, 100 mm × 150 mm motion platform, travel range 50 mm

A-106.100

PIglide RB linear air bearing module, 100 mm × 150 mm motion platform, travel range 100 mm

A-106.150

PIglide RB linear air bearing module, 100 mm × 150 mm motion platform, travel range 150 mm

A-106.200

PIglide RB linear air bearing module, 100 mm × 150 mm motion platform, travel range 200 mm

A-106.300

PIglide RB linear air bearing module, 100 mm × 150 mm motion platform, travel range 300 mm

A-106.450

PIglide RB linear air bearing module, 100 mm × 150 mm motion platform, travel range 450 mm

A-106.600

PIglide RB linear air bearing module, 100 mm × 150 mm motion platform, travel range 600 mm

Size of the Motion Platform 150 mm × 150 mm**A-107.050**

PIglide RB linear air bearing module, 150 mm × 150 mm motion platform, travel range 50 mm

A-107.100

PIglide RB linear air bearing module, 150 mm × 150 mm motion platform, travel range 100 mm

A-107.150

PIglide RB linear air bearing module, 150 mm × 150 mm motion platform, travel range 150 mm

A-107.200

PIglide RB linear air bearing module, 150 mm × 150 mm motion platform, travel range 200 mm

A-107.300

PIglide RB linear air bearing module, 150 mm × 150 mm motion platform, travel range 300 mm

A-107.450

PIglide RB linear air bearing module, 150 mm × 150 mm motion platform, travel range 450 mm

A-107.600

PIglide RB linear air bearing module, 150 mm × 150 mm motion platform, travel range 600 mm

A-107.750

PIglide RB linear air bearing module, 150 mm × 150 mm motion platform, travel range 750 mm

Size of the Motion Platform 200 mm × 200 mm**A-108.050**

PIglide RB linear air bearing module, 200 mm × 200 mm motion platform, travel range 50 mm

A-108.100

PIglide RB linear air bearing module, 200 mm × 200 mm motion platform, travel range 100 mm

A-108.150

PIglide RB linear air bearing module, 200 mm × 200 mm motion platform, travel range 150 mm

A-108.200

PIglide RB linear air bearing module, 200 mm × 200 mm motion platform, travel range 200 mm

A-108.300

PIglide RB linear air bearing module, 200 mm × 200 mm motion platform, travel range 300 mm

A-108.450

PIglide RB linear air bearing module, 200 mm × 200 mm motion platform, travel range 450 mm

A-108.600

PIglide RB linear air bearing module, 200 mm × 200 mm motion platform, travel range 600 mm

A-108.750

PIglide RB linear air bearing module, 200 mm × 200 mm motion platform, travel range 750 mm

A-108.A00

PIglide RB linear air bearing module, 200 mm × 200 mm motion platform, travel range 1000 mm

Size of the Motion Platform 300 mm × 300 mm**A-109.050**

PIglide RB linear air bearing module, 300 mm × 300 mm motion platform, travel range 50 mm

A-109.100

PIglide RB linear air bearing module, 300 mm × 300 mm motion platform, travel range 100 mm

A-109.150

PIglide RB linear air bearing module, 300 mm × 300 mm motion platform, travel range 150 mm

A-109.200

PIglide RB linear air bearing module, 300 mm × 300 mm motion platform, travel range 200 mm

A-109.300

PIglide RB linear air bearing module, 300 mm × 300 mm motion platform, travel range 300 mm

A-109.450

PIglide RB linear air bearing module, 300 mm × 300 mm motion platform, travel range 450 mm

A-109.600

PIglide RB linear air bearing module, 300 mm × 300 mm motion platform, travel range 600 mm

A-109.750

PIglide RB linear air bearing module, 300 mm × 300 mm motion platform, travel range 750 mm

A-109.A00

PIglide RB linear air bearing module, 300 mm × 300 mm motion platform, travel range 1000 mm

Ask about custom designs!