4.082 Ultra Precision Linear Stage UPM-160

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FACTS								
Load characteristics	Fx(N)	Fy _(N)	Fz _(N)	Mx _(Nm)	My _{(Nm})	Mz _(Nm)	k÷x(µrad/Nm)	^{k÷y} (µrad/Nm)
DC-B-039	150	100	350	100	200	100	5	3
2Phase-051	150	100	350	100	200	100	5	3



The UPM-160 ultra-precision linear stage was specifically designed for wafer inspection, fiber alignment or for any other tasks where the highest positioning

TECHNICAL DATA

mandatory. All UPM-160 stages are
equipped with an integrated linear scale
that is center mounted between the
guides. High-quality cross-roller bearings
mounted on a stress-relieved tempered
aluminum-alloy body guarantee maximum
load capacity and smooth motion. The
UPM-160 stage is offered with a 2-phase
stepper motor or with a DC-motor and is
equipped with two mechanical limit
switches. All ultra precision linear stages
are supplied with a certificate of
performance (flatness, straightness &
accuracy).

accuracy and reliability are absolutely



KEY FEATURES

- Travel range up to 205 mm (8")
- Uni-directional repeatability down to 0.035 μm
- Maximum speed 100 mm/sec
- Load capacity up to 35 kg
- Integrated mechanical limit switches
- Integrated linear scale (center mounted)

PImı(os

Travel range (mm)	55	55 105		155	205	
Straightness / Flatness (µm)	Flatness (μm) ± 0.5		75	± 1	± 1.25	
Pitch (µrad)	±15	± 2	20	± 25	± 30	
Yaw (µm)	± 20	± 20		± 20	± 20	
Weight (kg)	5	6	i	7	8	
Motor (Pitch 2.5 5 mm)	DC-B-039	2P	hase-051			
Linear scale				LS-010	LS-020	
Speed max. (mm/sec)	50 100) 18	30			
Resolution calculated (µm)		5	10(FS) 0.05	0.001	
Resolution typical (µm)				0.04	0.02	
Bi-directional Repeatability (µm)			± 0.05	± 0.035	
Uni-directional Repeatability (µ	m)			0.05	0.035	
Nominal Current (A)	3.8	3.8 2.5				
Voltage Range (V)	24					
Accuracy		on request				
Velocity range (mm/sec)		0.001 100				
Material		Aluminum, black anodized				

Note: FS = full step, RE = rotary encoder More info: Detailed information concerning motors and encoders, see appendix.

Ultra Precision Linear Stage UPM-160 4.083

120
2Phase-051



DC-B-039

А



Travel (mm)	55	105	155	205
А	110	135	160	185
В	210	260	310	360
С	6	8	10	12
D	-	4	4	6
E	3	3	5	5

Order No.	6270-9-			
DC-B-039		1		
2Phase-051		2		
55 mm (2")		1 —		
105 mm (4")		2		
155 mm (6")		3		
205 mm (8")		4		
LS-010, Linear steel scale		1 —		
LS-020, Linear glass scale		2		
Pitch 2.5 mm		1 -		
Pitch 5.0 mm		2		

4x Ø6.6

75

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