



# TDS-XY SERIES

- ▶ Three rail guides support longer upper axis in the bottom
- ▶ Compact size with customized flat cables with built-in tubes

## TDS-XY

	Unit	L	U
Effective Stroke	mm	500	500
Rated Payload	kg	20	
No-load Moving Mass	kg	40	7
Max Acceleration	m/s <sup>2</sup>	10	10
Max Velocity	m/s	1	1
Motor Model	-	AUM5-S3	AUM4-S3
Continuous Force	N	295	166
Peak Force	N	2122	936
Encoder Resolution	μm	0.05/0.5/SINCOS	0.05/0.5/SINCOS
Minimal Step Size	μm	0.5	0.5
Bidirectional Repeatability	μm	±1.0	±1.0
Accuracy	μm	±10.0	±10.0
Straightness	μm	±10.0	±10.0
Flatness	μm	±10.0	±10.0
Yaw	arc-sec	±10.0	±10.0
Pitch	arc-sec	±10.0	±10.0
Orthogonality	arc-sec	10.0	
No-load Stage Weight	kg	350	

**Note:**

- The table above presents the highest capability of this stage layout.
- Contact us for more options and details.

## Ordering Part Number (OPN)

**TDS0505U76U46E731A1**

**Model:**

TD: TDS-XY

**Cover Type:**

S: Standard (Clear Anodized)  
T: Standard (Black Anodized)  
N: No Cover

**Lower Axis Stroke:**

05: 500mm

**Upper Axis Stroke:**

05: 500mm

**Lower Axis Motor:**

U76: AUM5-S-S3-J (Peak Force: 2122.0N)  
U77: AUM5-S-S3-K (Peak Force: 2122.0N)  
U78: AUM5-P-S3-J (Peak Force: 2122.0N)  
U79: AUM5-P-S3-K (Peak Force: 2122.0N)

**Termination:**

1: Flying Leads  
2: DSUB

**Cable Length:**

A: 0.5m  
B: 3.0m

**Scale Type:**

1: Steel tape, 11ppm/K

**Encoder Type:**

E73: ABA50E EnDat2.2 (0.05μm)

**Upper Axis Motor:**

U46: AUM4-S-S3-J (Peak Force: 936.0N)  
U47: AUM4-S-S3-K (Peak Force: 936.0N)  
U48: AUM4-P-S3-J (Peak Force: 936.0N)  
U49: AUM4-P-S3-K (Peak Force: 936.0N)

**Note:**

- ❗ Standard stroke in intervals of 100mm only, for more options, please contact Akribis sales engineers.

## Dimension Drawing

Introduction

Sizing Guide

Frequently Asked Questions

Motion Control of Gantry Stages

Linear Module

Voice Coil Module

Miniature Stages

Stacked Stages

Gantry Stages

Akribis Systems

