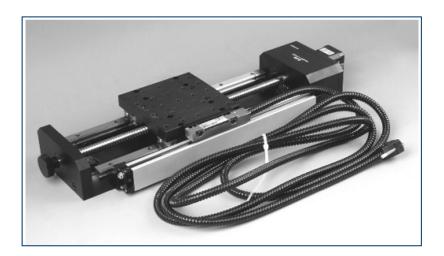
# KSA Motorized Stages (Version 1.1 2009-12-9)

## **Operation Manual**





## Thanks for using Zolix products!

Please read this introduction carefully before using. And kindly please contact Zolix office in Beijing or local office if you have any questions and suggestions.

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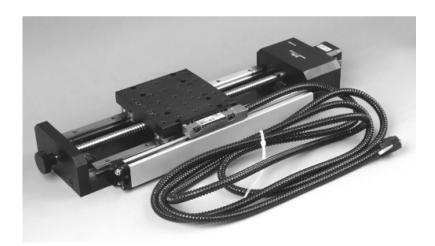
#### 1. KSA Series Motorized Stages

#### 1.1. Introduction

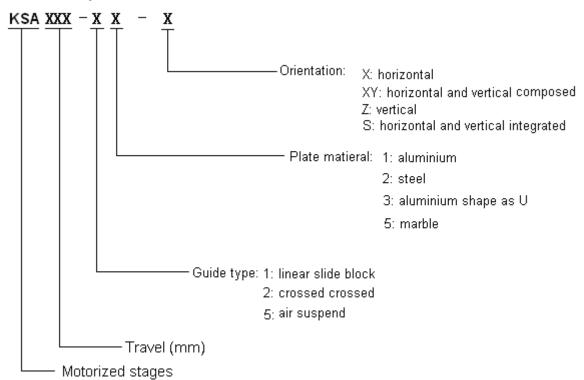
KSA series stages use the high precision ball screw and the linear slide block to ensure calibrations: repeatability, absolute determination. Moving linearity and parallel are enhanced because of the abrasive critical component and advanced assemblage.

The handwheel fixed on the back of the motor is for manual operation. The left and right limiting switch and zero switch are all for safety use. Different stages can be mounted together along the different axis. Step motor can be replaced by the servo motor to get high speed.

KSA series stages are suitable to high speed, load and repeating moving and also suitable to the high precision orientation, such as femtosecond laser test, exact laser machining and three-dimensional measuring system.



### 1.2. Model Explain





## 1.3. Specifications

	KSA050-11-X	KSA100-11-X	KSA150-11-X	KSA200-11-X	KSA300-11-X	KSA400-11-X
linearity	<10 µ m		<12 µ m	<15 µ m	<20 µ m	
parallel		<10 µ m		<12 µ m	<15 µ m	<20 μ m
Swing(")		<15		<20	<25	<30
pitching (")		<15		<25	<30	<40
Table dimension			125mm 2	X 125mm		
Travel			4mm			5mm
Closed-loop Resolution						
Open-loop Resolution	2.5 μm				3.125 µ m	
Maxim speed 40mn			40mm/Sec			50 mm/Sec
Repeatability	Repeatability <3 µ m					
Interstice		<5 μ m				
Step motor	r 42M-1.8S 57M-				-1.8S	
Operating current	· • I /A				2.4	1A
Load capacity 30 Kg				50 Kg		

	KSA050-12-X	KSA100-12-X	KSA150-12-X	KSA200-12-X	KSA300-12-X	KSA400-12-X	
linearity	linearity <10 µ m			<12 µ m	<15 µ m	<20 µ m	
parallel		<10 µ m		<12 µ m	<15 µ m	<20 µ m	
Swing(")	<15		<20	<25	<30		
pitching (")	<15			<25	<30	<40	
Table dimension			125mm	X125mm			
Travel	4mm					5mm	
Closed-loop Resolution	1 μ m						
Open-loop Resolution	2.5 µ m					3.125 µ m	
Maxim speed	40mm/Sec					50 mm/Sec	
Repeatability	<3 μ m						
Interstice			<5	5 μ m			
Step motor	42M-1.8S 57M-					-1.8S	
Operating current	1.7A 2.4A			4A			

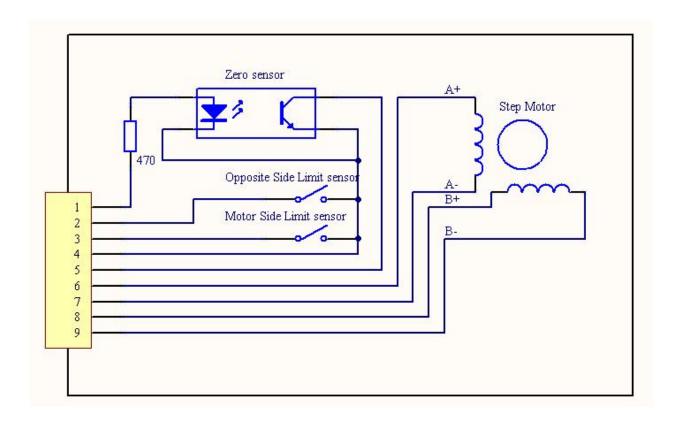


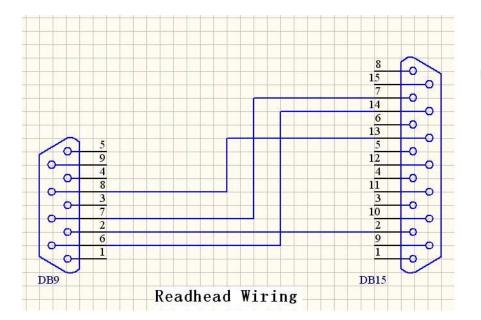
Load capacity	30 Kg	50 Kg
Loud oupdons	6	

	KSA050-13-X	KSA100-13-X	KSA150-13-X	KSA200-13-X	KSA300-13-X	KSA400-13-X
linearity	<10 μ m			<12 µ m	<15 µ m	<20 µ m
parallel		<10 µ m		<12 µ m	<15 μ m	<20 μ m
Swing(")	<15			<20	<25	<30
pitching (")	<15			<25	<30	<40
Table dimension			125mm	X125mm		
Travel	4mm					5mm
Closed-loop Resolution	1 μ m					
Open-loop Resolution	2.5 μ m					3.125 µ m
Maxim speed	40mm/Sec					50mm/Sec
Repeatability	<3 μ m					
Interstice	<5 μ m					
Step motor 42 M-1.8S				57M-	-1.8S	
Operating current	1.7A			2.4	lA	
Load capacity	30 Kg			50Kg		

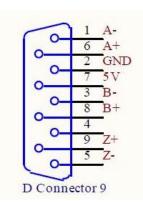


## 1.4. Wiring Diagram





Encoder interface definition:



## 2. Unpacking Procedures

#### (1) Visual examination

Please do the following inspection for all packing box

Check whether the packaging is intact outside the equipment, there are situations, such as damage, soaks, out of shape, etc..

Have above-mentioned situation please report immediately to Zolix. Or Representatives

#### (2) Unpacking procedures

Please open the packing box and make sure Do-Not uses the heavy-duty tool or opens rudely. With the proper tool according to the direction shown on the packing box so as not to cause inside equipment to be damaged.

#### (3) After unpacks

Please check equipment have appearance damage or corrosion, etc...

Based on contract and packing list, check specification, mode, and quantity.

Have above-mentioned situation please report immediately to Zolix or representatives

Please keep the packing box at least half year in order to return and transport needing.

## 3. Warning

## Warning!!!

Never touch the stage when it is in operation expect under manual!



#### 4. Certifications and Warranty

Zolix Instruments Corporation (Zolix) certifies that this instrument was thoroughly tested and inspected and found to meet the specifications furnished by Zolix when it was shipped from the factory.

Zolix Instruments Corporation (Zolix) instruments and accessories are warranted for a period of one full year from date of delivery to be free from defects in material and to conform to the specifications furnished by Zolix. The corporation's obligation under this warranty is limited to servicing or adjusting an instrument returned to the factory, prepaid, and to repairing at the factory any part or parts thereof All purchased items carry the original manufacturers' warranty.

Zolix Corporation shall not be liable for consequential damages resulting from accident, alteration, and improper installation, operation on low or excessive voltages or use in violation of the operating instructions furnished by Zolix.

If any defect appears within the warranty period, the purchaser shall promptly notify Zolix No material will be accepted for repair or replacement without prior authorization from Zolix Upon such authorization and in accordance with instructions of Zolix, parts, materials or equipment for which repair or replacement is requested shall be returned to Zolix for examination, with shipping charges prepaid by the purchaser. Final determination as to whether a product or part is actually defective rests with Zolix Instruments Corporation,

In such cases where necessary repairs are not covered by this warranty, an estimate of repair charges will be submitted to the purchaser before servicing the equipment.

Zolix Instrument Corporation reserves the right to make changes or improvement upon its products without imposing any obligations upon it to install the same upon its products previously manufactured.

This warranty is expressly in lieu of all other obligations or liabilities on the part of Zolix, and Zolix neither assumes, nor authorizes any other person to assume for then other obligations or liability in connection with the sale of equipment manufactured by Zolix Instruments Corporation.



## 5. CE Declaration of Conformity

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Manufactured by: Zolix Instrument Co., Ltd

Applicable Standards: Generic Immunity EN 50082-1:1992

> Generic Emission EN 50081-1: 1992

> **Electrical Safety Standards** EN 61010-1:1993

Zolix Instrument Co., Ltd certifies that this equipment conforms to the protection requirements of the above Directives.



<b>6</b> .	Packag	e List
	Model:	□KSA
	Name:	Motorized Stage
	Serial N	umber:

## **Products List**

No.	Product Name	Amount
1	☐KSA Motorized stage	1
No.	Accessories	Amount
No.	Tools and Facilities	Amount
No.	Documents	Amount
1	KSA Motor Stages Operation Manual	1
2	Conformity certificate	1

Checker Name and Checking Date:

## Zolix Instruments Co., Ltd.

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