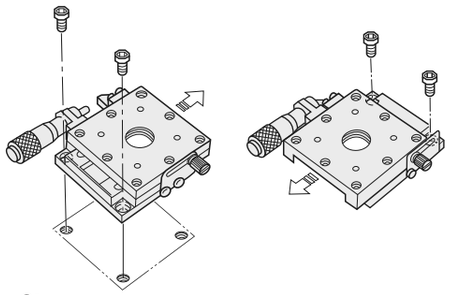
■Stage Operating Environment

Operating Environment :10 ~ 50°C, 20 ~ 70%RH (No Condensation)
Recommended Operating Environment: 22±5°C, 20 ~ 70%RH (No Condensation)

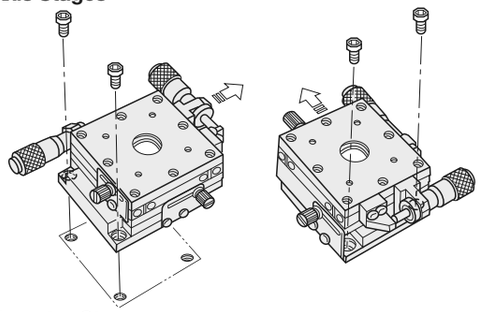
■Stage Installation Method

To mount a stage on the base surface, move the top plate to access mounting holes as shown below.

X-Axis Stages

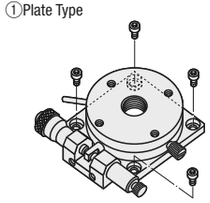


XY-Axis Stages

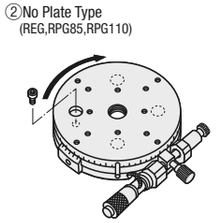


Rotary Stages

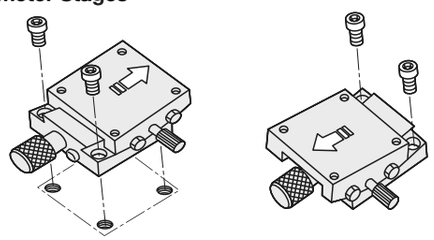
①Plate Type



②No Plate Type
(REG,RPG85,RPG110)



Goniometer Stages

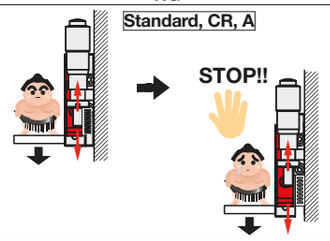
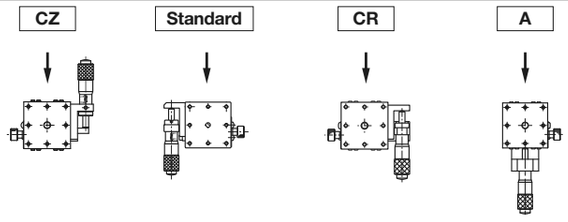


Notes on Mounting Surface Accuracies

Intended product performances may not be achieved if the stage mounting surface or the carried object's mounting surface do not have sufficient flatness.
(General Flatness Guideline: 10μm or better)

■Vertical Use of X-Axis Stages

When mounting a stage in vertical orientation, note the directions of the feed mechanisms and springs.

NG	OK
	
A load exceeding the spring pull force will cause the carriage to drop.	CZ: The carriage does not drop since the micrometer head tip pushes the bracket on the bottom plate. Standard, CR, A: The stage does not move down when the micrometer head is mounted pointing up.

However, do not apply a load exceeding the specified vertical load capacity.

Standard Stages

■Holding Force

Holding Force (Reference) is the (reference) value to hold the stage top surface rest when clamped.

■Measured Holding Force

<Test Conditions>Clamp screws are tightened with the tightening torque below and pressed with the test instrument (F in the diagram). The max. holding force is the load measured where the stage top surface starts to move.

- Tightening Torque (Standard)
  - ⓐ XDTS (Standard, Dovetail Slide, Rack & Pinion) Size 50 and 60: 0.1N·m; Size 90: 0.15N·m
  - ⓑ XDTSC (Standard, Dovetail Slide, Low Profile, Rack & Pinion) Size 50 and 60: 0.1N·m; Size 90: 0.15N·m
  - ⓒ XCRS (Standard, Cross Roller): 0.15N·m

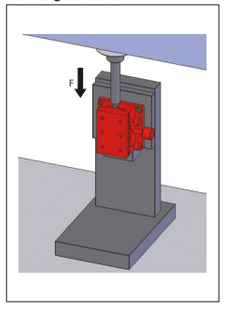
<Max. Holding Force (Ref.)>

Type		Max. Holding Force (Ref.)
ⓐ XDTS	50	30N
	60	60N
	90	70N
ⓑ XDTSC	50	10N
	60	20N
	90	40N
ⓒ XCRS	40	60N
	60	60N
	80	70N

<Max. Holding Force (Ref.) depending on Tightening Torque>

Type	Tightening Torque (Standard at 100%)		
	50%	100%	150%
XDTS60	50N	60N	90N
XCRS60	40N	60N	100N

<Testing Method>



Max. Holding Force (Ref.) will vary depending on the tightening torque variations. Ensure adequate safety margins for design.

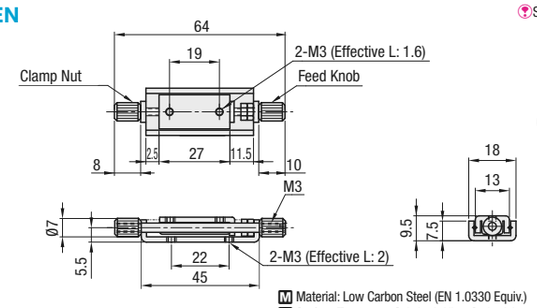
[Simplified Adjustments] X-Axis, Feed Screw, Compact / Stroke Selectable

■Features: Eliminates frustrations when positions are lost at the final one turn of screws in slotted holes. The low profile of 9.5mm is effective in narrow spaces.

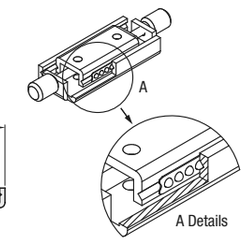
■X-Axis Compact Type

Travel per Rotation: 0.5mm RoHS

XSEN



Slides smoothly with ball guides on each side.



M Material: Low Carbon Steel (EN 1.0330 Equiv.)
S Surface Treatment: Salt-bath Nitro Carburizing

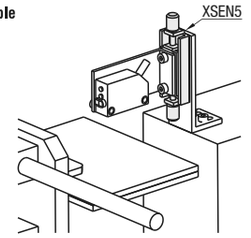
Part Number Type	No.	Stage Surface (mm)	Travel Distance (mm)	Load Capacity (N)	Weight (kg)	Unit Price
XSEN	5	13x27	±2.5	19.6	0.03	

Travel per Rotation: 0.5mm

For orders larger than indicated quantity, please request a quotation.

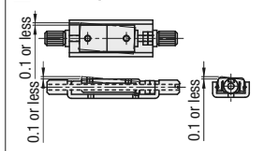
Ordering Example: Part Number → XSEN5

Example



Fine Adjustments of Product Counter Sensors.

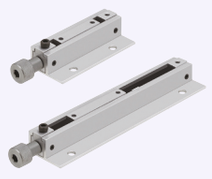
■Accuracy Standards



There are some mechanical clearances as shown above, and not recommended for positioning applications requiring accuracies.

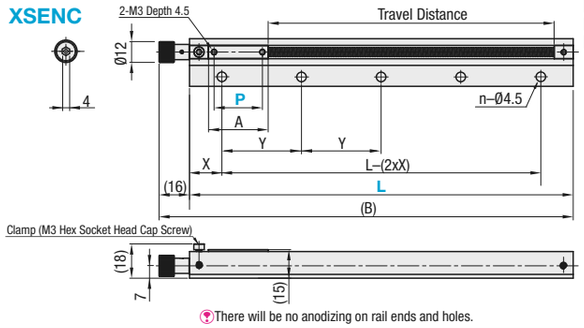
■Features: Five stroke lengths from 60mm to 200mm are offered, mainly for sensor adjustments during setup changes.

■X-Axis Stroke Selectable Type



Travel per Rotation: 0.8mm RoHS

XSENC



M Material: Aluminum Alloy
S Surface Treatment: Clear Anodize
A AccessoryHex Socket Head Cap Screw (P.Z-174 SCB4-6) 2 pcs.

Stage Surface (mm)	
P	A
10	16
12	18
19	25
25.4	31.4

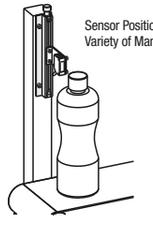
There will be no anodizing on rail ends and holes.

Part Number Type	L	P (Selection)	X	Y (When 150Y and 200Y)	Number of Holes (n)	(B)	Distance between End Taps L-(2xX)	Travel Distance	Load Capacity (N)	Unit Price
XSENC	60	10 12 19 25.4	10	-	2	76	40	L-A-23	9.8	
	70		14	-	2	86	42	L-A-25		
	80		18	-	2	96	44			
	150		20	-	2	166	110	L-A-30		
	150Y (*)		15	40	4		120			
	200		22	-	2	216	156			
	200Y (*)		20	40	5		160			

Models denoted by (*) will have added holes on the mounting surface.
Travel per Rotation: 0.8mm

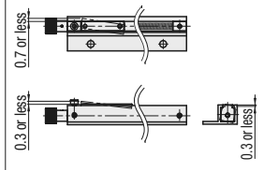
Ordering Example: Part Number - P → XSENC150 - 25.4

Example



Sensor Position Adjustments for Large Variety of Manufacturing Schemes

■Accuracy Standards



There are some mechanical clearances as shown above, and not recommended for positioning applications requiring accuracies.

One Point

Long stroke moves can be made easily with use of a ball-point hex wrench.