

## Precision XY Motion Platform

### FEATURES

- Compact Low Profile Design
- 150mm XY Travel
- Optical limit switches with home
- Stepper motor
- Crossed Roller Bearing
- Lead Screw



The CXY-HS series stages are designed for a variety of applications. This compact low profile stage offers cost effective motion for laboratory and automation needs. The CXY-HS offers the same levels of orthogonality and parallelism as the BS series XY tables resulting in high accuracy for combined axis motion. The hybrid stepper drive and crossed roller bearings provide smooth motion. The drive has an inherent braking action allowing it to maintain position when the motors are not powered. The XY stage can operate in any orientation.



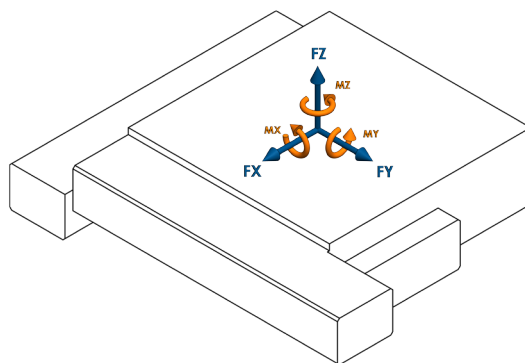
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CXY-C-150-HS-C-N-S-0-00

## Motion Specifications

## Product Specifications

Force X (N)	75
Force Y (N)	75
Force Z (N)	250
Flatness ( $\mu\text{m}$ )	10
Height (mm)	66
Length (mm)	351
Limit Switches	Yes
Linear Accuracy ( $\mu\text{m}$ )	40
Linear Repeatability ( $\mu\text{m}$ )	5
Linear Velocity (mm/s)	25
Moment X (N-m)	110
Moment Y (N-m)	110
Moment Z (N-m)	75
Moving Mass X (kg)	9.08
Moving Mass Y (kg)	3.59
Orthogonality (arc-sec)	20
Pitch +/- (arc-sec)	20
Screw Lead (mm)	3.175
Stage Mass (kg)	13.57
Stepper Motor Resolution (Whole Steps/rev)	200
Straightness ( $\mu\text{m}$ )	10
Width (mm)	309
Yaw +/- (arc-sec)	10



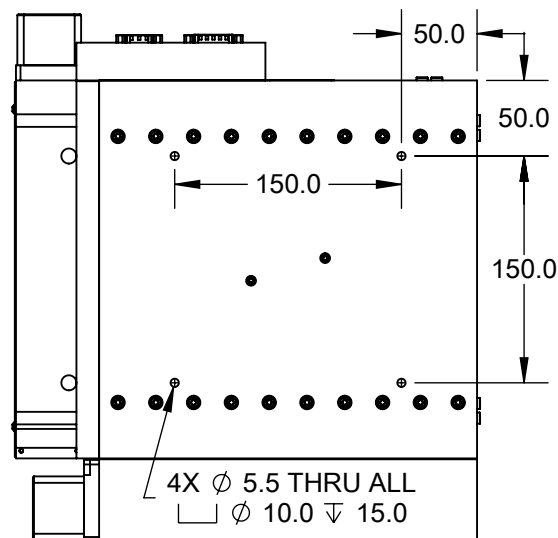
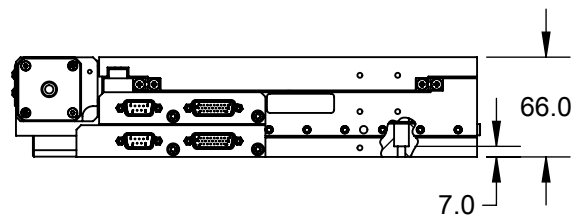
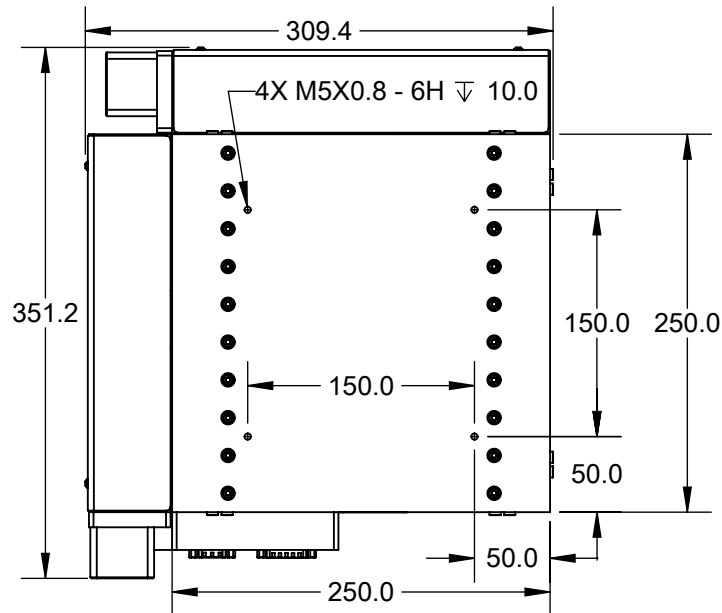
LOAD DIRECTIONS

## Part Number Description

CXY	CXY Series
C	No Aperture
150	150mm Travel
HS	Hybrid Stepper Leadscrew
C	Hybrid Stepper Leadscrew
N	Limit and Home Switch Only
S	Standard Precision
0	No Additional Options
00	Standard Product (Call for custom)

CXY-C-150-HS-C-N-S-0-00

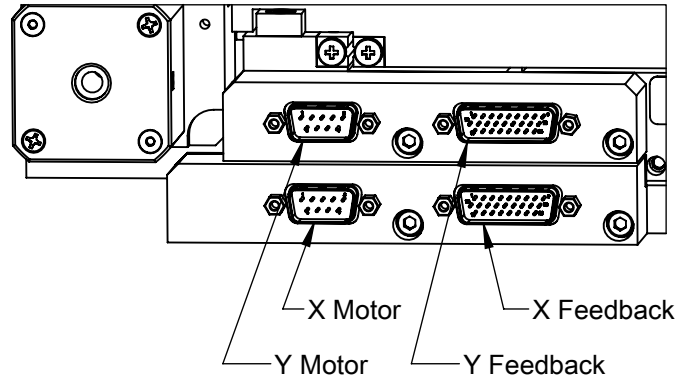
## Mechanical Specifications



CXY-C-150-HS-C-N-S-0-00

Rev 10

Feedback Connector (DSUB26HD MALE)	
PIN	NAME
1	+5V
2	*
3	*
4	*
5	LIM+
6	*
7	*
8	*
9	*
10	*
11	*
12	*
13	*
14	LIM-
15	*
16	*
17	*
18	*
19	GND
20	*
21	*
22	*
23	HOME
24	*
25	*
26	*
* Reserved	



Motor Connector (DSUB9 MALE)	
PIN	NAME
1	*
2	*
3	*
4	*
5	*
6	PHASE A+
7	PHASE A-
8	PHASE B+
9	PHASE B-
* Reserved	



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## Electrical Specifications

Motor Specifications	
Motor Type	Bipolar Stepper
Winding Voltage (VDC)	2.33
Current/phase (A)	1.5
Resistance/phase ( $\Omega$ )	1.56
Induction/phase(mH)	1.9
Power Consumption (W)	7.0

Feedback Specifications	
Supply Voltage (V)	5.0 $\pm$ 10%
Supply Current (mA)	250
Encoder Feedback	No
Limit Switches	Yes
Limit Switch Output Type	CMOS
Limit Switch Output current (mA)	$\pm$ 20.0
Home Switch	Yes
Home Switch Output Type	CMOS
Home Switch Output current (mA)	$\pm$ 20.0

A home switch is provided near center mechanical travel and a limit switch at each end of travel. The limit switches will be pulled low throughout the travel range of the stage. The output will swing high at the end of travel and remain high until the mechanical limit is reached.