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## CXY-C-150-BS-A-F-P-0-00

Precision XY Motion Platform

### Overview

#### Features

- Compact Low-Profile Design
- 150mm XY Travel
- Zero backlash, precision ground ball screws
- Optical limit switches with home
- High resolution linear encoder
- Brushless servo motor drive
- Crossed Roller Bearings

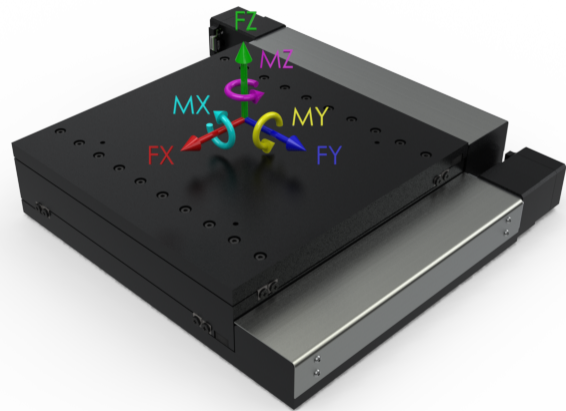


#### Description

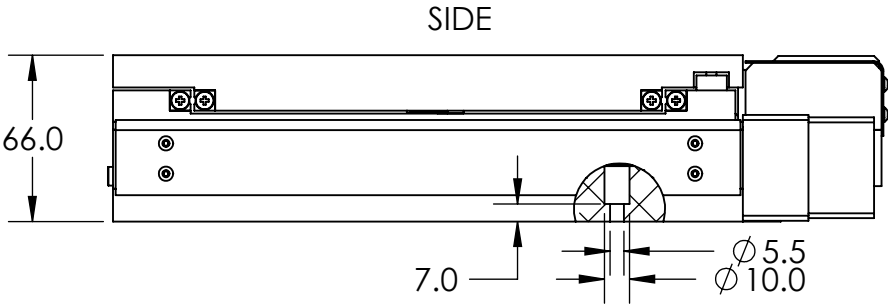
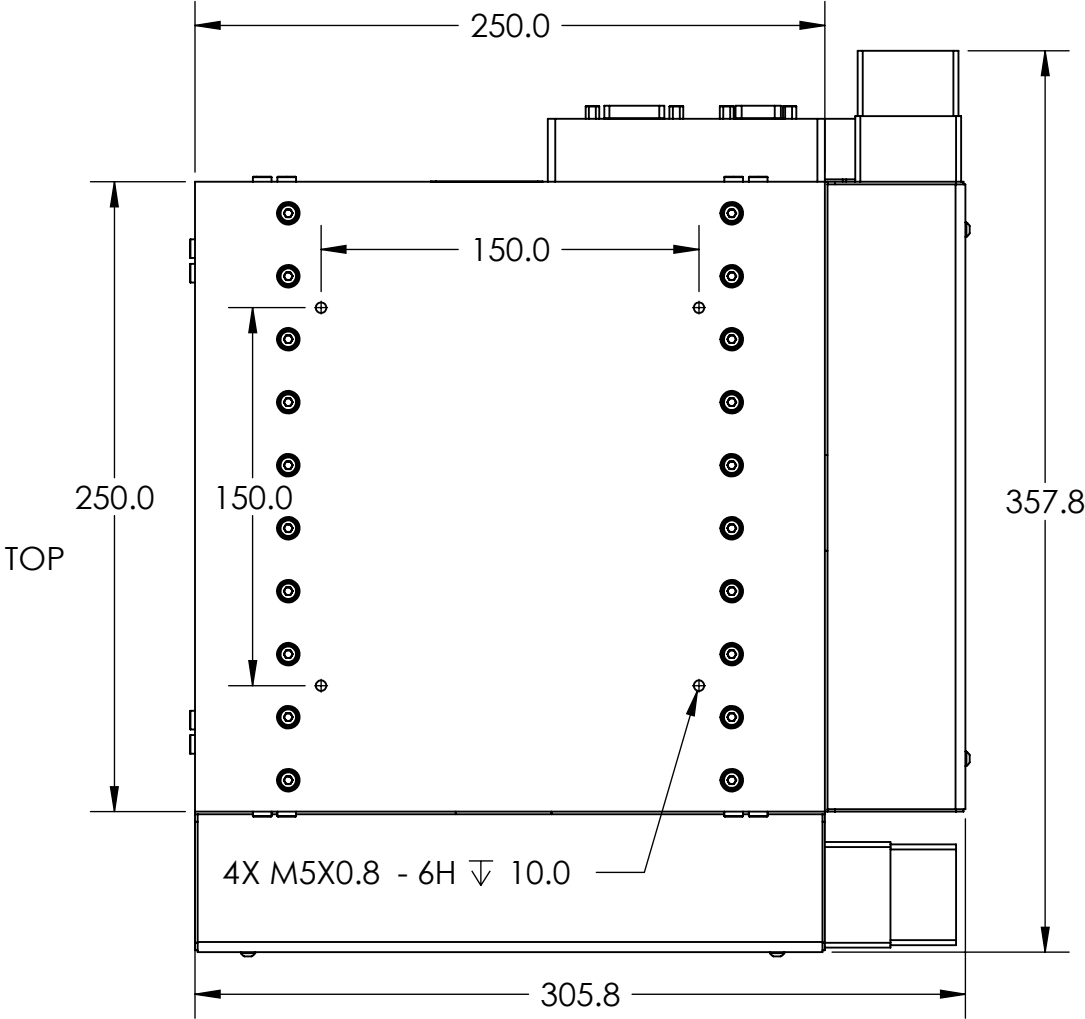
The CXY-BS series stages are designed for a variety of applications. This compact low profile ball screw stage is built for high duty cycles and long life and can attain high velocities for factory automation and semiconductor processing equipment. The CXY series offers extraordinary levels of orthogonality and parallelism resulting in high accuracy for combined axis motion. Crossed roller bearings and precision ground ball screws offer extremely smooth operation and velocity control. The XY stage can operate in any orientation and has optional brakes for added safety.

## Specifications

Aperture	No Apertur
Travel(mm)	150
Drive	Ground Ball Screw
Motor	Brushless Servo
Encoder	0.1um Linear Steel
Precision	High Precision
Environmental	No Options
Encoder Output	A quad B, index
Force X (N)	200
Force Y (N)	200
Force Z (N)	250
Flatness ( $\mu\text{m}$ )	4
Height (mm)	66
Length (mm)	306
Limit Switches	Yes
Linear Accuracy ( $\mu\text{m}$ )	6
Linear Repeatability ( $\mu\text{m}$ )	0.5
Linear Velocity (mm/s)	150
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)	5
Pitch (arc-sec)	10
Screw Lead (mm)	2
Stage Mass (kg)	13.57
Straightness ( $\mu\text{m}$ )	4
Width (mm)	358
Yaw (arc-sec)	4

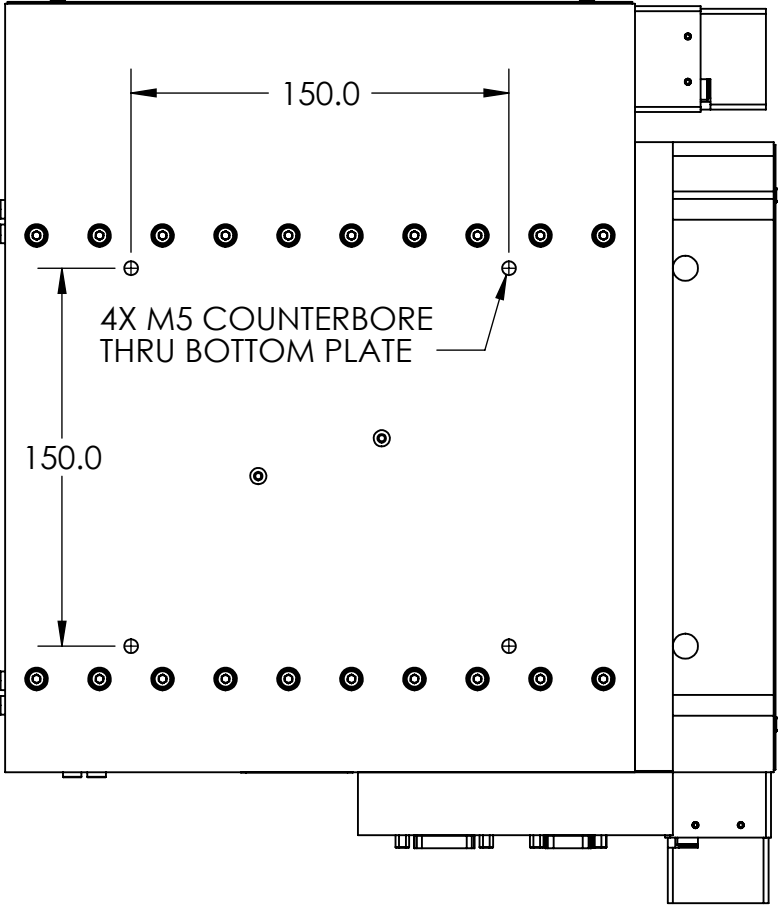


ALL DIMENSIONS IN MM  
UNLESS OTHERWISE NOTED

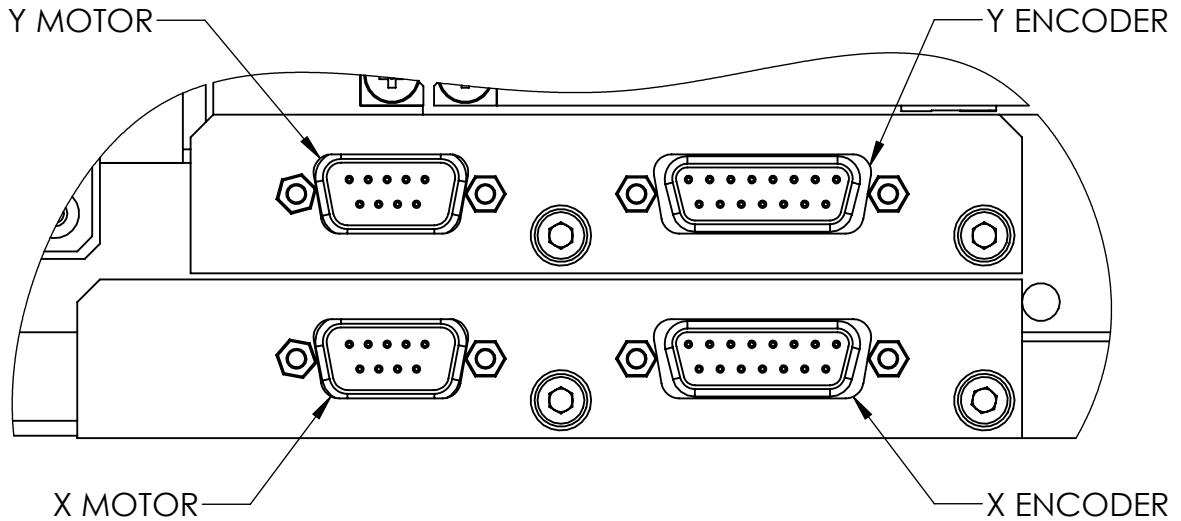


ALL DIMENTIONS IN MM  
UNLESS OTHERWISE NOTED

BOTTOM



ALL DIMENTIONS IN MM  
UNLESS OTHERWISE NOTED



MOTOR PINOUT	
PIN	NAME
1	HALL SUPPLY +5V
2	HALL "C"
3	HALL "B"
4	HALL "A"
5	HALL GROUND
6	MOTOR PHASE "A"
7	MOTOR PHASE "B"
8	MOTOR PHASE "C"
9	N/C

### MOTOR SPECIFICATIONS

- 3 Phase Brushless
- Number of Poles: 6
- Terminal Resistance (+/- 12%) 1.51Ω
- Terminal Inductance (+/-30%) 0.55 mH
- Peak Current 10.0A (5 sec duration)
- Max Continuous Current 3.0A (25°C ambient temperature, decrease for higher ambient temperature)

ENCODER PINOUT	
PIN	NAME
1	N/C
2	N/C
3	N/C
4	RI-
5	B-
6	A-
7	N/C
8	+5V
9	GND
10	LIMIT-
11	LIMIT+
12	RI+
13	B+
14	A+
15	N/C

### ENCODER SPECIFICATIONS

- Supply Voltage 5V +/- 5%
- Supply Current <180mA
- Square wave output RS-422

### LIMIT SWITCH OUTPUT

- Open collector output
- Recommended 5kohm pull-up resistor to +5V
- Absolute maximum current sink per switch: 20mA
- Voltage output low is < 0.8V
- Output is high impedance when switch is triggered