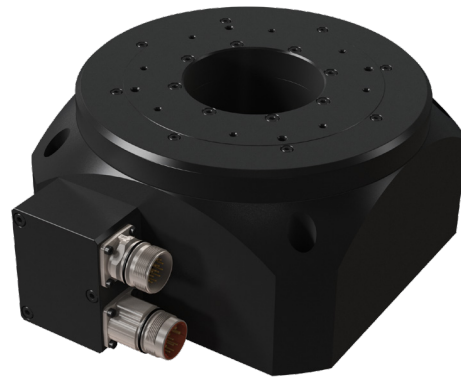


## Precision Rotary Table

### FEATURES

- Continuous 360° rotation
- 75mm through bore
- High resolution, absolute encoder
- High torque, direct drive brushless servo motor



The HTR-DD Series Rotary tables are direct drive, precision positioning tables designed for laboratory, factory automation and semiconductor processing equipment. The high torque brushless direct drive technology eliminates backlash and improves reliability by minimizing sliding friction throughout the stage. The large bore allows convenient routing of tubing and cabling for application requirements. Positioning resolution can be selected, with most controls, to meet the needs of the final application.

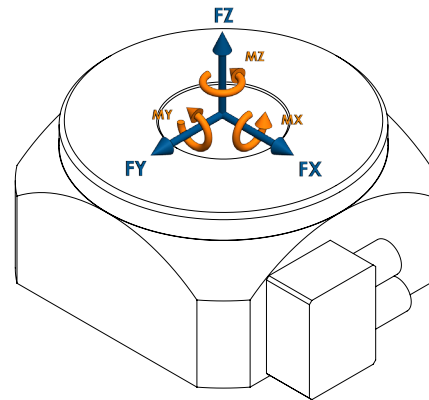


HTR-DD-200-AA-M-A-S-0-00

## Motion Specifications

## Product Specifications

Angular Accuracy (arc-sec)	30
Angular Repeatability (arc-sec)	3
Angular Resolution (arc-sec)	0.019
Angular Velocity (deg/s)	2190
Axial Runout ( $\mu\text{m}$ )	10
Continuous Torque (N-m)	12
Encoder Output	BiSS C (uni-directional) 26 bit
Force X (N)	250
Force Y (N)	250
Force Z (N)	500
Height (mm)	104
Length (mm)	225
Limit Switches	No
Moment X (N-m)	25
Moment Y (N-m)	25
Moment Z (N-m)	12
Encoder Resolution (arc-sec)	0.019 (67108864cts/rev)
Peak Torque (N-m)	19
Radial Runout ( $\mu\text{m}$ )	10
Rotational Inertia ( $\text{kg}\cdot\text{m}^2$ )	0.008314
Stage Mass (kg)	8.98
Travel Range (deg)	360 continuous
Width (mm)	190
Wobble (arc-sec)	10



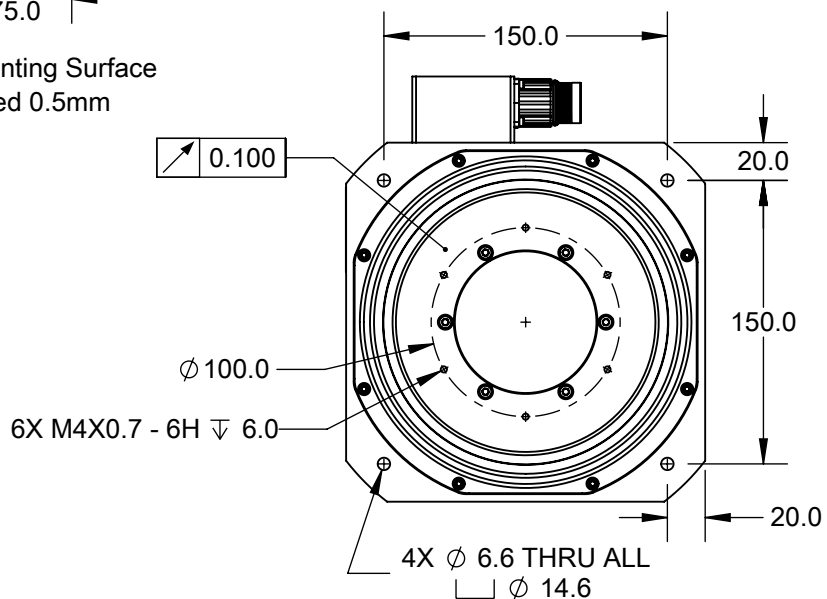
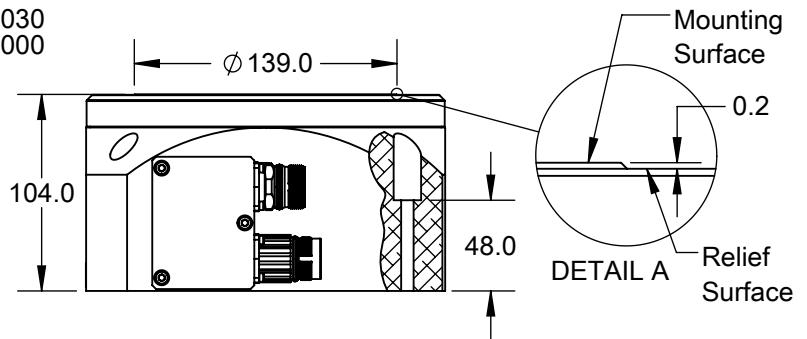
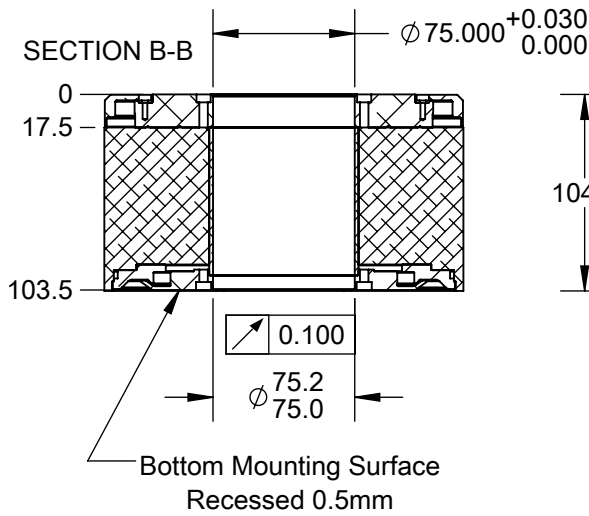
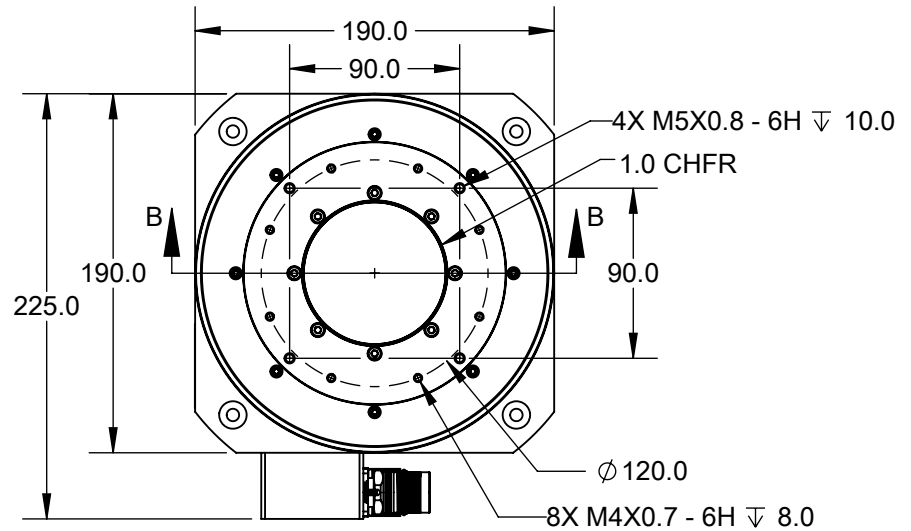
**LOAD DIRECTIONS**

## Part Number Description

HTR	HTR Series
DD	Direct Drive
200	200mm Diameter
AA	Absolute Metal Ring
M	No Interpolation
A	Aluminum Hub
S	Standard Precision
0	No Additional Options
00	Standard Product (Call for custom)

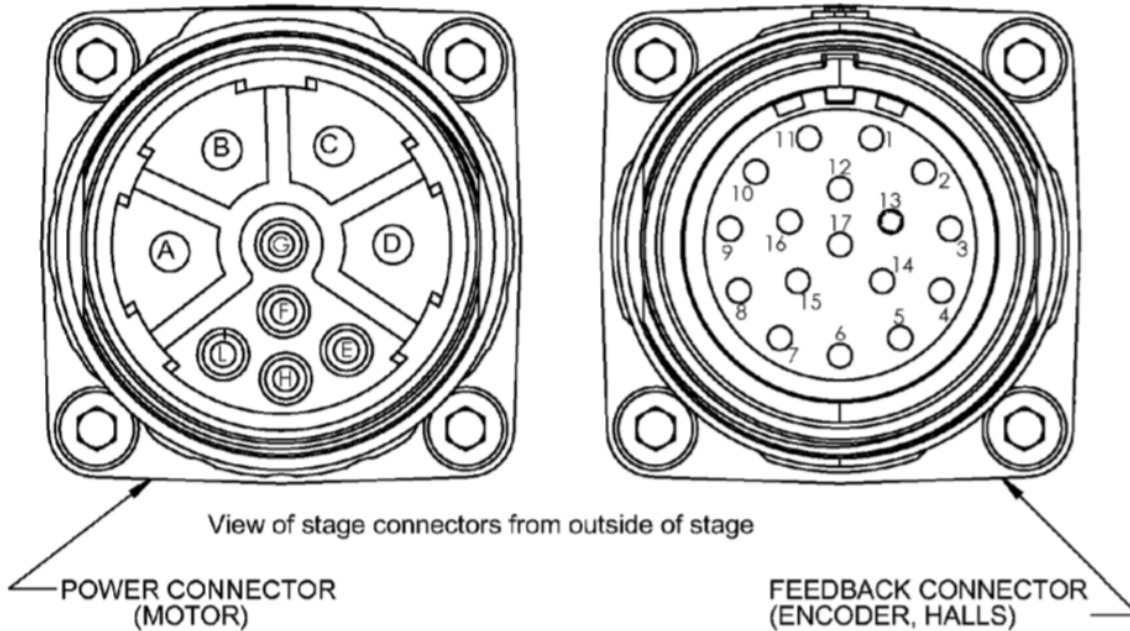
HTR-DD-200-AA-M-A-S-0-00

### Mechanical Specifications

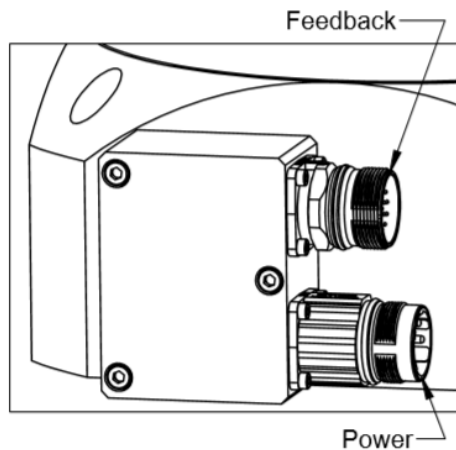


HTR-DD-200-AA-M-A-S-0-00

Rev 1



POWER CONNECTOR	
PIN	NAME
A	PHASE A (U)
B	PHASE B (V)
C	PHASE C (W)
D	PE GROUND
E	*
F	*
G	*
H	*
L	*
*	Reserved



FEEDBACK CONNECTOR	
PIN	NAME
1	SLO +
2	SLO -
3	*
4	*
5	*
6	*
7	*
8	*
9	+5VDC
10	GND
11	*
12	MA+
13	TEMP
14	MA-
15	*
16	*
17	*
*	Reserved

Connectors on Stage		
Manufacturer	Part No.	Description
Amphenol	MA1LAE1700	Connector, REC, 17POS
Amphenol	MB1LLN0900	Connector, REC, 9POS
Amphenol	SC000035	Connector Pin, Male, 1mm
Amphenol	SC000036	Connector Pin, Male, 2mm



HTR-DD-200-AA-M-A-S-0-00

## Electrical Specifications

Motor Specifications	
Motor Type	3 $\Phi$ Brushless DC
BEMF Constant (V/KRPM)	209
Electrical Time Constant (ms)	2.75
Max Bus Voltage (VDC)	300
Max Continuous Current (Arms)	4.56
Motor Torque Constant (N·m/Arms)	3.45
Peak Current (Arms)	13.3
Pin to Pin Inductance (mH)	30
Pin to Pin Resistance (ohm)	10.9
Poles per Revolution	36

Feedback Specifications	
Supply Voltage (V)	5.0 $\pm$ 10%
Supply Current (mA)	250
Encoder Feedback	Yes
Encoder Type	Absolute
Encoder Output	BiSS C (uni-directional) 26 bit
Encoder Resolution	26 bit (67 108 864 counts per revolution, $\approx$ 0.019 arc second)
Encoder Error and Warning bits	Active low
Hall Switch Output	None
Limit Switches	No