

Precision Rotary Collet Stage

FEATURES

- Continuous 360° rotation
- High resolution encoder
- Brushless DC motor
- Ø 5.00mm through bore
- Spring close, pneumatic open collet
- Accepts ER8 type collets



The RCS series rotary stages are designed for precise positioning and workholding to suit a variety of applications. The brushless direct drive technology eliminates backlash and improves reliability by eliminating sliding friction throughout the stage. The pneumatic open, spring close system allows for a range of collet sizes with exceptional runout capability.

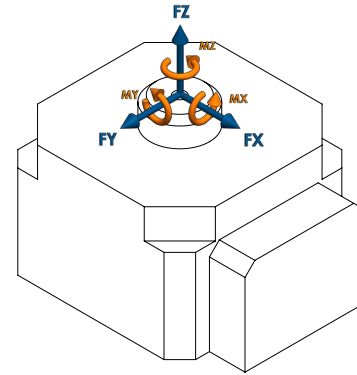


RCS-090-AC-M-E-ER8-00

Motion Specifications

Product Specifications

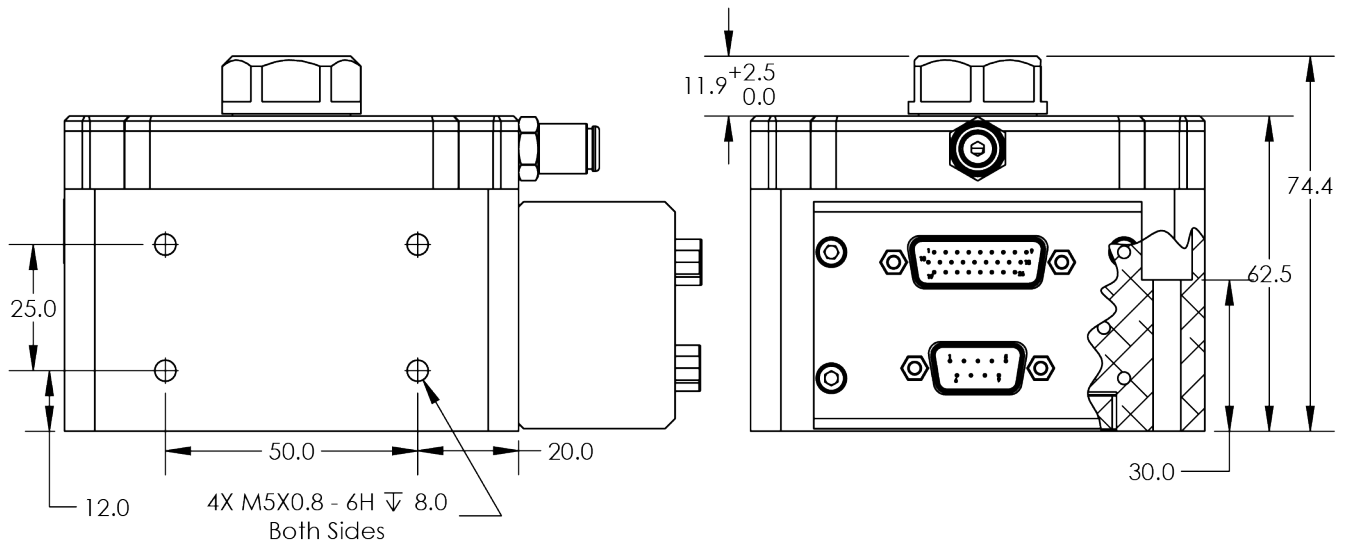
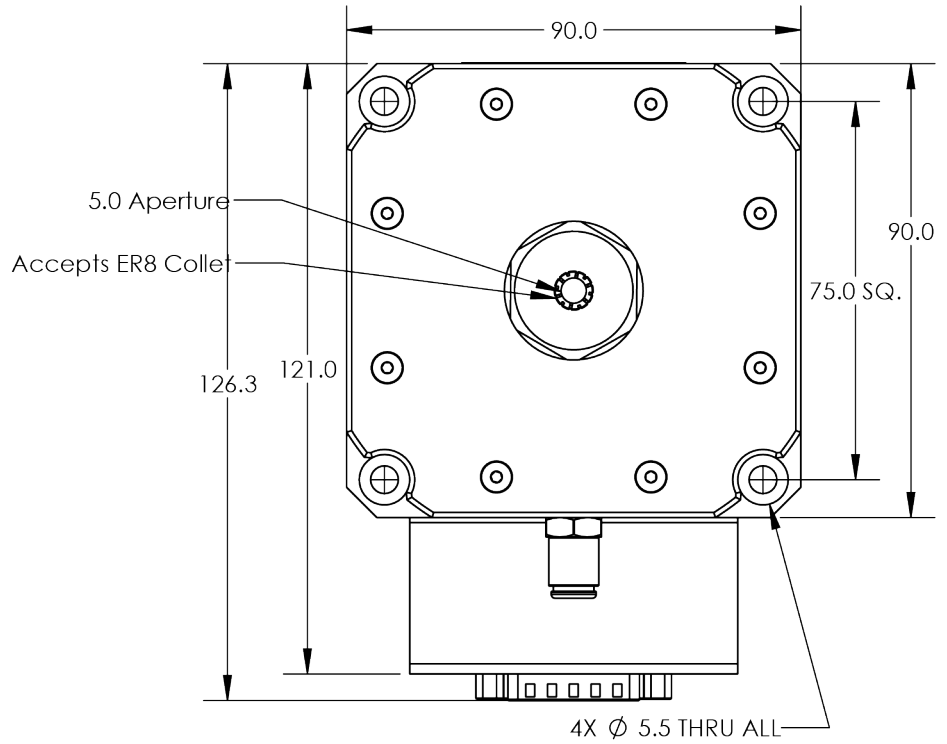
Air Pressure Range (PSI)	60-90
Air Quality Required	Dry Air, 1µm Maximum Particulate Size
Angular Accuracy +/- (arc-sec)	30
Angular Repeatability +/- (arc-sec)	4
Angular Velocity (deg/s)	3600
Collet Type	ER8
Encoder Output	1Vp-p Sine and Cosine, Index
Height (mm)	76.5
Length (mm)	126
Maximum Aperture (mm)	5
Peak Torque (Nm)	2.9
Radial Runout of gage pin in collet (µm)	<30
Rotational Inertia (kg-m ²)	0.00034
Stage Mass (kg)	1.5
Travel Range (deg)	360
Through Bore (mm)	5
Width (mm)	90



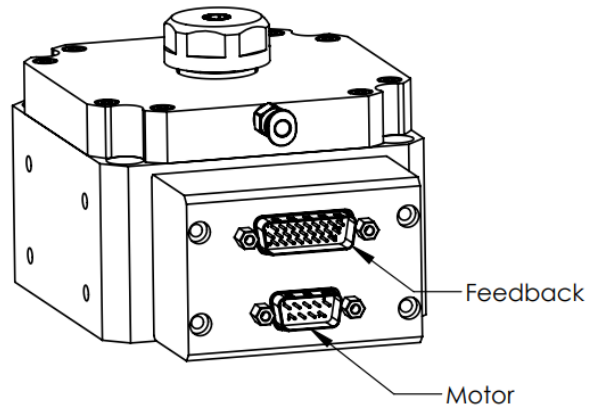
LOAD DIRECTIONS

Part Number Description

RCS	RCS Series
090	90mm Diameter
AC	Brushless Motor
M	Glass Disk, 10,000 Line Pairs
E	1Vpp Output
ER8	Accepts ER8 Collet
00	Standard Product (Call for custom)



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



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



Motor Specifications	
Motor Type	3 Φ Brushless DC
BEMF Constant (V/KRPM)	44
Electrical Time Constant (ms)	0.37
Max Bus Voltage (VDC)	340
Max Continuous Current (A_p)	1.48
Motor Torque Constant (N·m/A)	0.36
Peak Current (A_p)	2.9
Pin to Pin Inductance (mH)	5.32
Pin to Pin Resistance (ohm)	14.23
Poles per Revolution	16

Feedback Specifications	
Supply Voltage (V)	5.0 \pm 10%
Supply Current (mA)	250
Encoder Feedback	Yes
Encoder Type	Incremental
Encoder Output	1Vpp Sinusoidal; Sin, Cos, Index; Differential Pairs
Hall Switch Output	Open-Collector, No Pullup Resistor
Hall Switch max current (mA)	-20
Limit Switches	No