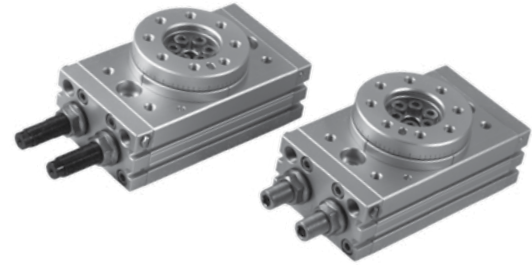


MHRQ Rotary Actuators

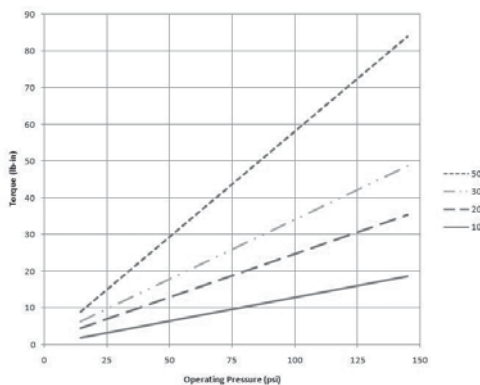
Engineering Specifications

Model		10	20	30	50
Fluid		Air (Clean/Dry)			
Action		Double Rack and Pinion (Double Acting)			
Pressure Range	Bolt Adjustment	14 to 145 PSI (0.1 to 1.0 MPa)			
	Shock Absorber	14 to 87 PSI (0.1 to 0.6 MPa)			
Proof Pressure		215 PSI (1.5 MPa)			
Temperature Range		32 °F to 140 °F (0 °C to 60 °C)			
Adjustment Angle Range		0° to 190° Rotation			
Repeatable Precision	Bolt Adjustment	0.2°			
	Shock Absorber	0.05°			
Rotation Times (s/90°)	Bolt Adjustment	0.2~1.0			
	Shock Absorber	0.2~0.7			
Cushion Type	Bolt Adjustment	Rubber Bumper			
	Shock Absorber	Shock Absorber			
Port Size		M5 X 0.8	Rear Ports 1/8 NPT Side Ports M5 X 0.8		
Sensor Switch Compatibility¹	Reed Switch	MCS1-H			
	Solid State Switch	MDS1-H			
Includes		Magnet			

¹ See Switch chapter for switch specifications



Torque Output



Maximum Energy Absorption (J)

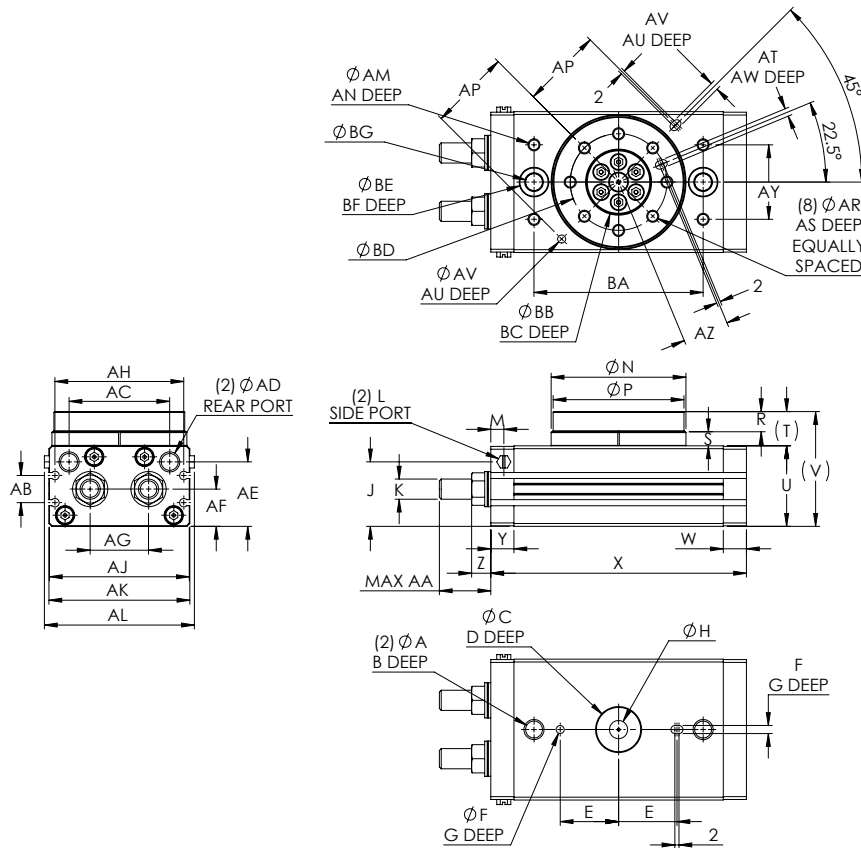
Model	With Bolt Adjustment	With Shock Absorber
MHRQ10	0.01	0.04
MHRQ20	0.025	0.12
MHRQ30	0.05	0.12
MHRQ50	0.08	0.30

Maximum Loads

	Loading Type	MHRQ10	MHRQ20	MHRQ30	MHRQ50
	Maximum allowed radial loading	80N (18lbs)	150N (33.7lbs)	200N (45lbs)	300N (67.4lbs)
	Maximum allowed axial loading	80N (18lbs)	150N (33.7lbs)	200N (45lbs)	300N (67.4lbs)
	Maximum allowed bending moment	2.5Nm (22.1in-lbs)	4.0Nm (35.4in-lbs)	5.5Nm (48.7in-lbs)	10.0Nm (88.5in-lbs)

How to Specify

Dimensions (mm)



Model	A	B	C	D	E	F	G	H	J	K	L	M	N	P
MHRQ10	M8 X 1.25	12	15 +.043/-0	3	20	3 +.03/-0	3.5	5	29	M10 X 1.0	M5 X 0.8	4.5	46 +0/-0.062	45 +0/-0.062
MHRQ20	M10 X 1.5	15	17 +.043/-0	2.5	25	4 +.03/-0	4.5	9	30	M12 X 1.0	M5 X 0.8	6	61 +0/-0.074	60 +0/-0.074
MHRQ30	M10 X 1.5	15	22 +.052/-0	3	29	4 +.03/-0	4.5	9	34	M12 X 1.0	M5 X 0.8	6.5	67 +0/-0.074	65 +0/-0.074
MHRQ50	M12 X 1.75	18	26 +.052/-0	3	34	5 +.03/-0	5.5	10	38	M14 X 1.5	M5 X 0.8	10	77 +0/-0.074	75 +0/-0.074

Model	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AK	AL	AM
MHRQ10	8	4.5	13	34	47	9.5	92	9.5	9.5	17.5* / 28.5**	13.5	34.5	M5 X 0.8	28	15.5	20.5	45	49.5	50	54.5	M5 X 0.8
MHRQ20	10	6.5	17	37	54	11	117	11	9.8	26* / 39**	12	47	M5 X 0.8	30	16	27.5	59	64.5	65	69.5	M6 X 1.0
MHRQ30	10	6.5	17	40	57	11.5	127	11.5	9.5	25.5* / 39**	13.5	50	1/8 NPT	32	18.5	29	64	69.5	70	74.5	M6 X 1.0
MHRQ50	12	7.5	20	46	66	15	152	15	14	31.5* / 51**	15	63	1/8 NPT	38	22	38	74.5	79.5	80	84.5	M8 X 1.25

Model	AN	AP	AR	AS	AT	AU	AV	AW	AY	AZ	BA	BB	BC	BD	BE	BF	BG
MHRQ10	8	28	M5 X 0.8	8	3 +.03/-0	3.5	3 +.03/-0	3.5	27	15	60	20 +.052/-0	4.5	32	11	6.5	6.5
MHRQ20	8	37	M6 X 1.0	10	4 +.03/-0	4.5	4 +.03/-0	4.5	34	20.5	76	28 +.052/-0	6.5	43	14	8.5	8.5
MHRQ30	8	40	M6 X 1.0	10	4 +.03/-0	4.5	4 +.03/-0	5	37	23	84	32 +.062/-0	5	48	14	8.5	8.5
MHRQ50	8	46	M8 X 1.25	12	5 +.03/-0	5.5	5 +.03/-0	6	50	26.5	100	35 +.062/-0	5.5	55	18	10.5	10.5

* Bolt Adjustment
** Shock Absorber

The model number of MHRQ rotary actuators consists of an alphanumeric cluster designating product line, model, and end stop that together make up the complete part number to use in ordering. Use the ordering information below to build a valid part number.

An example of a basic model 20 MHRQ unit with shock absorbers is shown here.

