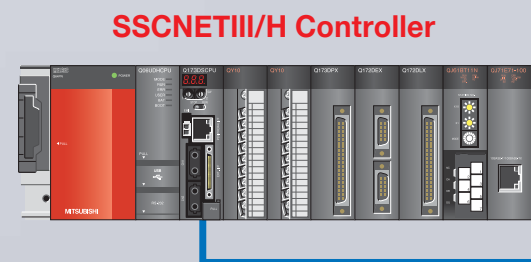


SSCNETIII/H System Overview



SSCNETIII/H Communication
Simple Selection and Connection!

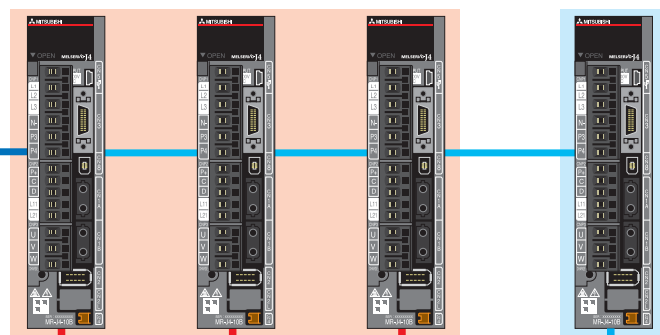
Mitsubishi Electric
HG Series



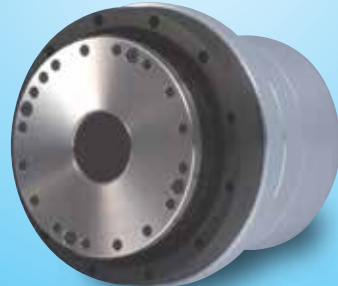
AC Servo Amplifier

MR-J4-B

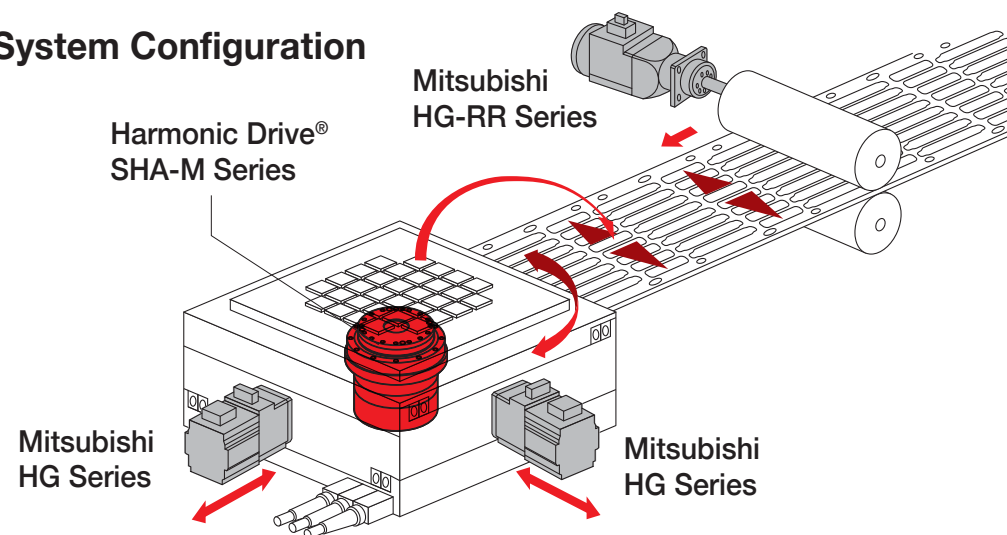
MR-J4-B-S033



Harmonic Drive®
SHA-M Series



Simple System Configuration



Harmonic Drive LLC
Boston US Headquarters
42 Dunham Ridge
Beverly, MA 01915

New York Sales Office
100 Motor Parkway
Suite 116
Hauppauge, NY 11788



San Jose Sales Office
333 W. San Carlos Street
Suite 1070
San Jose, CA 95110

Chicago Sales Office
137 N. Oak Park Avenue
Suite 410
Oak Park, IL 6030

T: 800.921.3332
T: 978.532.1800
F: 978.532.9406
www.HarmonicDrive.net

Please contact us with any questions.
Harmonic Drive is a registered trademark of Harmonic Drive LLC.

Group Companies
Harmonic Drive Systems, Inc.
6-25-3 Minami-Ohi, Shinagawa-ku
Tokyo 141-0013, Japan

Harmonic Drive AG
Hoenbergstrasse, 14, D-6555
Limburg/Lahn Germany



Rev_03_15

HarmonicDrive®

AC Servo Actuator

SHA Series

+

Mitsubishi AC Servo
MITSUBISHI SERVO AMPLIFIERS & MOTORS
MELSERVO

J4



Collaborative Success

HarmonicDrive® SHA Series AC Servo Actuator now connects directly with
Mitsubishi Electric's MELSERVO-J4 SSCNETIII/H
Further expanding the options for network connectivity!

HarmonicDrive®



- The SHA Servo Actuator combines precision Harmonic Drive® gearing with a flat AC servo motor.
- The Hollow Shaft actuator design allows piping or cabling to pass directly through the axis of rotation.
- Flat configuration enables compact machine designs.
- Precise one-way positioning accuracy: Gear ratio 51:1 50 arc-sec (0.014 degree)
Gear ratio 81:1 and higher 40 arc-sec (0.011 degree)
- Torque to Volume ratio is more than 5 times greater than Direct Drive Motors.
- SHA-M Series is easy to use with MELSERVO-J4 SSCNETIII/H Communication.

Contact:

AC Servo Actuators SHA-M Series (Harmonic Drive LLC)
AC Servo Amplifier MELSERVO-J4 (Mitsubishi Electric Corp.)

Ordering Code

SHA	32	M	101	SG	-	B	12	A	200	-	16	Sl7b	A	-	C	□	-	SP
①	②	③	④	⑤		⑥	⑦	⑧	⑨		⑩	⑪	⑫		⑬	⑭		⑮

Size / Ratio			SHA40M										SHA58M				SHA65M					
			51	81	101	121	161	51	81	101	121	161	81	101	121	161	81	101	121	161		
Specification			MR-J4-100B-S033					MR-J4-200B-S033					MR-J4-350B-S033				MR-J4-500B-S033					
Recommended Driver			MR-J4-100B-S033					MR-J4-200B-S033					MR-J4-350B-S033				MR-J4-500B-S033					
Maximum Torque ^{*1}		Nm	340	560	686	802	841	523	675	738	802	841	1924	2067	2236	2392	2743	2990	3263	3419		
Continuous Torque ^{*1*2}		Nm	94	158	198	237	317	160	263	330	382	382	680	850	969	969	921	1149	1236	1236		
Maximum Speed ^{*1}		r/min	78.4	49.4	39.6	33.1	24.8	78.4	49.4	39.6	33.1	24.8	37.0	29.7	24.8	18.6	34.6	27.7	23.1	17.4		
Maximum Current ^{*1}		A	18	18	18	17.9	14.6	26.7	21.8	19.4	17.9	14.6	45	39	36	30	62	55	51	41		
Continuous Current ^{*1*2}		A	6.0	6.0	6.0	6.0	6.0	9.0	9.0	9.0	8.8	7.2	17.0	17.0	16.4	13.4	22.0	21.9	20.1	16.3		
Moment of Inertia (without Brake)		GD ² /4	kg·m ²	5.0	13	20	28	50	5.0	13	20	28	50	96	149	214	379	110	171	245	433	
Moment of Inertia (with Brake)		GD ² /4	kg·m ²	6.1	15	24	34	61	6.1	15	24	34	61	106	165	237	420	120	187	268	475	
Reduction Ratio			51:1	81:1	101:1	121:1	161:1	51:1	81:1	101:1	121:1	161:1	81:1	101:1	121:1	161:1	81:1	101:1	121:1	161:1		
Max. Moment Load		Nm	849										2180				2740					
Moment Stiffness		Nm/rad	179×10 ⁴										531×10 ⁴				741×10 ⁴					
Positioning Accuracy		arc-sec	50	40	40	40	40	50	40	40	40	40	40	40	40	40	40	40	40	40		
Encoder Type			Magnetic Absolute Encoder (with battery backup)										Magnetic Absolute Encoder (with battery backup)									
Output Encoder Resolution		counts/rev	6,684,672	10,616,832	13,238,272	15,859,712	21,102,592	6,684,672	10,616,832	13,238,272	15,859,712	21,102,592	10,616,832	13,238,272	15,859,712	21,102,592	10,616,832	13,238,272	15,859,712	21,102,592		
Mass (with Brake)		kg	9.9										29.5				37.5					
Mass (without Brake)		kg	10.7										32				40					
Mounting Direction			Can be installed in any direction										Can be installed in any direction									