

MYOSTAT MOTION CONTROL INC

Spherical Rolling Joints



Precision and rigidity
for prismatic joints &
parallel manipulators

Manufactured by Hephaist Seiko in Japan under ISO 9001: 2008 certification, the Spherical Rolling Joint provides a highly precise and rigid ball joint for demanding parallel robotics and photonics applications. The centre globe is assembled under preload conditions to achieve backlash as low as 1 micron while providing motion with extremely low frictional resistance. The SR Joint reduces the number of joints by $\frac{1}{2}$ to $\frac{2}{3}$, reducing the number of failure points and the accumulation of flexibility.

**A COMPACT 2 OR 3 DEGREE OF FREEDOM SOLUTION
WITH AN ON-AXIS MOUNTING CONFIGURATION**

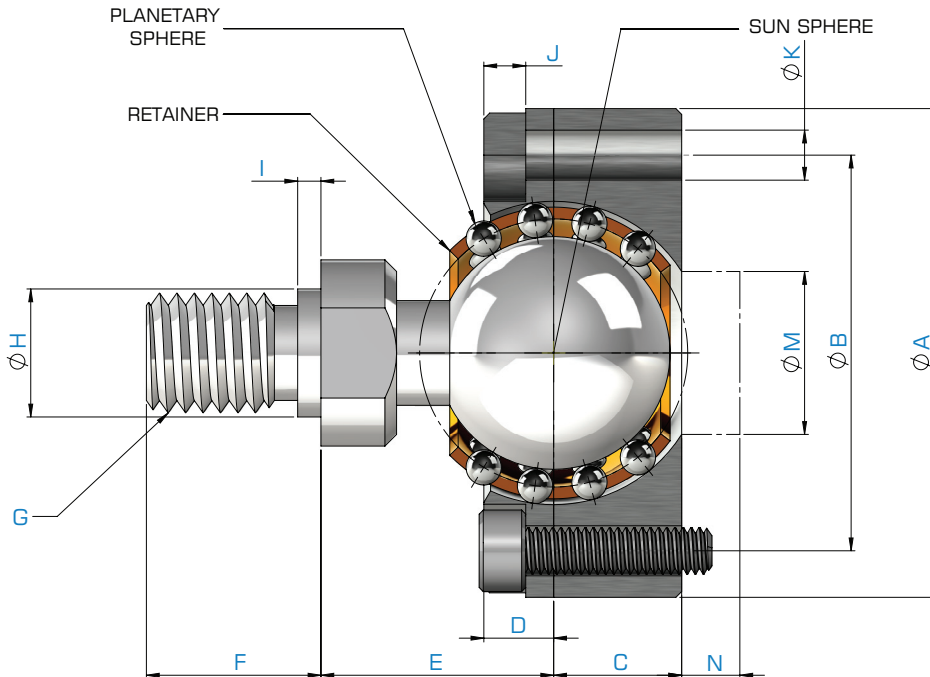
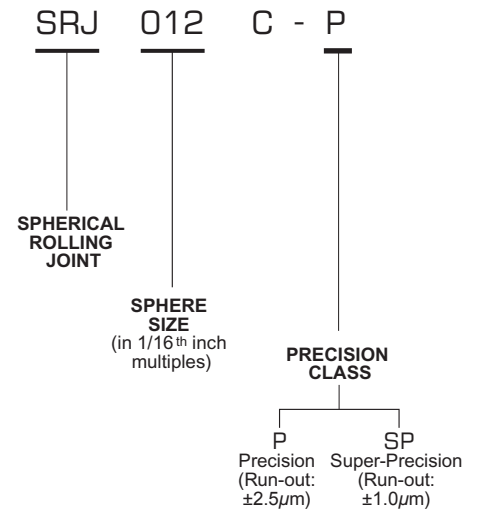
TECHNICAL SPECIFICATIONS

MODEL	SHAFT THREAD RECOMMENDED TORQUE (N-m)	COMPRESSIVE LOADS		TENSILE LOADS		WEIGHT (kg)	MAXIMUM SWING ANGLE
		C (Nm)	Co (Nm)	T (Nm)	To (Nm)		
SRJ004C	0.6	128	100	38.4	30	0.015	±15°
SRJ006C	1.57	320	280	96	84	0.036	±30°
SRJ008C	3.22	490	540	147	162	0.06	±30°
SRJ012C	23.19	720	770	216	231	0.18	±30°
SRJ016C	40.45	1170	1300	351	390	0.37	±30°
SRJ024C	64.37	2840	3920	852	1176	0.93	±30°
SRJ032C	100.44	5800	8820	1740	2646	2.30	±30°
SRJ048C	600.08	10600	16000	3180	4800	6.73	±30°

C and T denote working dynamic loads. Co and To denote working static loads

- Standard product material is SUJ2 (high carbon, high chromium bearing steel)
- Precision classification "SP" available for sizes SRJ008-SRJ048
- Customization options include stainless steel product material, Raydent coating, and modifications to accommodate high vacuum and clean room environments
- Additional customizations available upon request
- The SR Joint is a patented product manufactured using Hephaist Seiko's unique spherical surface processing technology.

PART NUMBER BREAKDOWN



USAGE GUIDELINES

Designed for axial loading; do not apply load in any other direction with the shaft inclined for extended periods

Do not exceed 80% of the load rating for extended periods

Avoid rotating the shaft

Retainer may become misaligned gradually during use. If misaligned, release the load and set the retainer such that it is concentric with the shaft when oriented normal to the base. Continuous use of the joint while the retainer is misaligned could damage the retainer.

Please reference the **SRJ USAGE GUIDELINES** document for additional information available for free download at srjoint.com

DIMENSIONS

MODEL (units: mm)	A	B	C	D	E	F	G	H	I	J	K	M	N	WIDTH ACROSS FLATS
SRJ004C	19	15	3.8	2.5	10	6	M3x0.5	3.6	2	1.5	2	6	1.5	4
SRJ006C	25	20	5.5	3.8	11.5	8	M4x0.5	4.5	2	2.3	3	10	2	5
SRJ008C	30	24	7	4	16	12	M5x0.5	5.5	4	2	3.4	11	2	7
SRJ012C	42	34	11	6	20	15	M10x1.5	11	2	3.6	4.3	14	2	14
SRJ016C	56	45	12	7	32	18	M12x1.75	12.6	3	4.6	5.5	25	5	14
SRJ024C	74	62	17	11	42	23	M14x2	15	5	5.5	6.6	35	7	17
SRJ032C	100	84	22	16	60	30	M16x2	16.6	6	8.6	9	48	10	22
SRJ048C	136	114	38	22	78	38	M28x2	30	6	10.8	11	60	10	30

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Automation Components and Modern Mechatronic Solutions

HEPHAIST