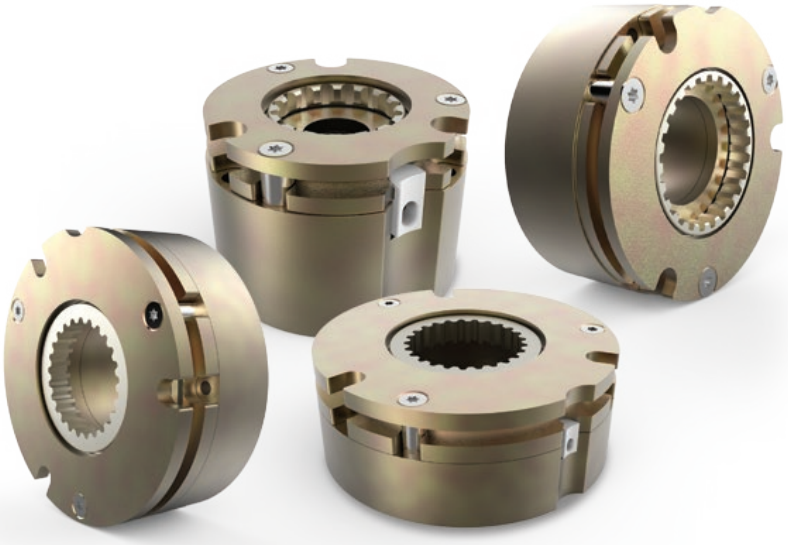
RegalRexnord™

Servo Motor Brakes (SMB)



WARNER ELECTRIC™

Warner Electric Spring-Applied Brakes: Specifically Designed For Servo Motor Applications

Warner Electric, a leader in advanced servo motor braking solutions, has designed a range of standard spring-applied brakes, specific to servo motor applications. Warner Electric SMB brakes are available in a range of sizes compatible with most common servo motor frame sizes.

Previously available only as custom-engineered solutions, customers can now integrate industry-leading Warner Electric servo motor braking technologies into their applications faster and more cost-effectively than ever before.

The SMB range and proprietary friction material have been developed specifically for the demanding and variable conditions of servo motor applications ensuring effective static holding capabilities and dependable dynamic performance can be delivered and maintained at elevated temperatures and across a range of working conditions.

Unique Friction Material

Capitalising on in-house expertise, Warner Electric worked together with engineers at Svendborg Brakes, both world industry leaders, to design a proprietary friction material engineered specifically to meet the torque, temperature and energy requirements of today's servo motor brakes.

Utilising simulation software, Warner Electric™ SMB brakes are designed to optimise the control of magnetic flux to deliver an optimal performance-to-size ratio.

Reduced Lead Time

All components are produced in-house utilising lean manufacturing principles, facilitating the ability to supply customised SMB brakes within market-leading lead times. Some of the many options available include flange or rear mounting interfaces, a variety of hub designs, and lead connections.

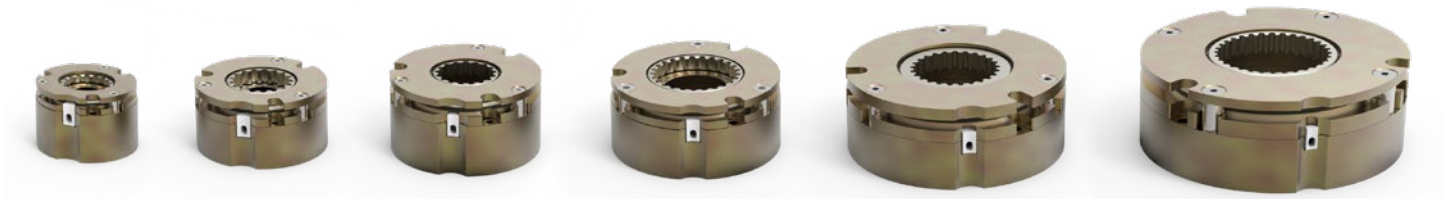
Quality

Warner Electric's quality system is accredited to ISO 9001 ensuring that product design and development, manufacturing and service are of the highest standard. Our refined in-house manufacturing processes and first-rate supply chain partners help us produce product quality to meet or exceed customer expectations. Component traceability from supplier to assembly and 100% end-of-line inspection record-keeping across the SMB range eliminates defective product before reaching the customer.

nqa. ISO 9001 Registered Quality Management

nqa. ISO 14001 Registered Environmental Management

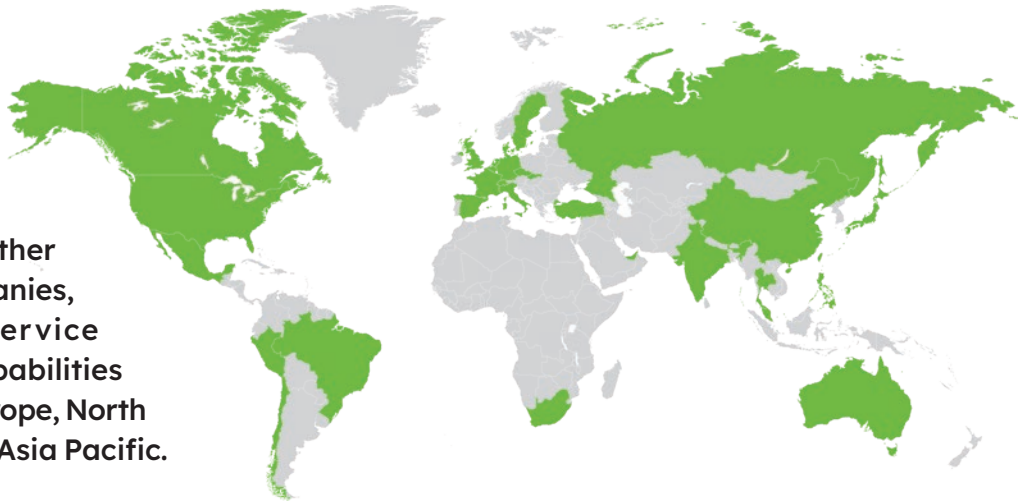
OEMs worldwide rely on Warner Electric's extensive servo motor braking expertise



Warner Electric is a world leader in the design and manufacture of more than 2,000 variants of spring-applied, electromagnetically released brakes for the leading servo motor manufacturers in Europe, the USA and Asia.

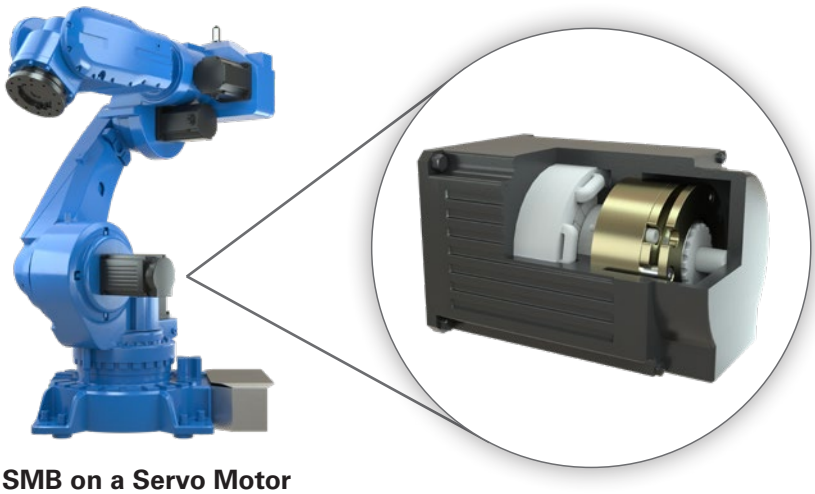
OEMs around the world have come to rely on Warner Electric's vast servo motor braking application knowledge to meet the faster speeds and precision accuracy requirements in a wide range of industrial applications including:

- Robotics & Industrial Automation
- Machine Tool
- Medical
- Automotive
- Printing & Paper Converting
- Assembly & Semiconductors
- Renewable Energy



Warner Electric, along with other leading Regal Rexnord companies, provide local sales and service support with global R&D capabilities and production facilities in Europe, North America, South America and Asia Pacific.

Technical Specifications



SMB on a Servo Motor

- **Mounting:** flange, magnet or rear options
- **Voltage:** 24 VDC (+- 10%)
- **Holding Torque:** 1.6 to 32 Nm
- **Operating Temperature:** -20°C to 120°C
- **Corrosion Resistance:** suitable for long storage

NEW

NEW Range of Spring-Applied Brakes Specifically Designed for Servo Motor Applications

- Standard brake sizes compatible with most common servo motor frame sizes
- Unique proprietary friction material
- Reduced lead time
- Optimal performance-to-size ratio

AVAILABLE ON REQUEST*:

- Hub options
- Alternative mounting configurations
- Bearing and encoder recess
- Connector options
- Lead wire options
- Application representative testing
- Application specific dynamic torque ratings

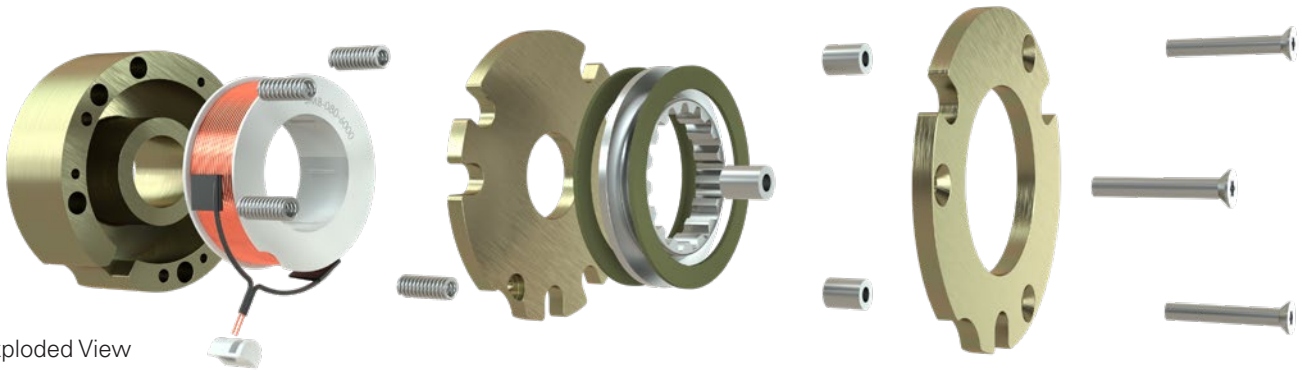
SMB PERFORMANCE*

Unit	Rated Torque At 250°F (120°C) in-lb (Nm)	Nominal Static Torque [1] in-lb (Nm)	Max. No. Dynamic Stop	Max. Stop Speed (rpm)	Max. Backlash (Degrees)	Response Time		Power (W)
						Release (ms)	Engage [2] (ms)	
SMB060	14 (1.6)	18 (2.0)	2500	7000	1.0	<40	<70	10
SMB080	28.5 (3.25)	35 (4.0)	2500	7000	0.6	<50	<75	12.5
SMB090	44 (5.0)	57.5 (6.5)	2500	6000	0.6	<55	<100	17.5
SMB105	62 (7.0)	80 (9.0)	2500	6000	0.6	<65	<150	21.5
SMB130	142 (16.0)	177 (20.0)	2500	5500	0.6	<75	<200	25
SMB155	283 (32.0)	354 (40.0)	2500	5500	0.6	<100	<350	32

[1] – Typical static torque from conditioned brake.

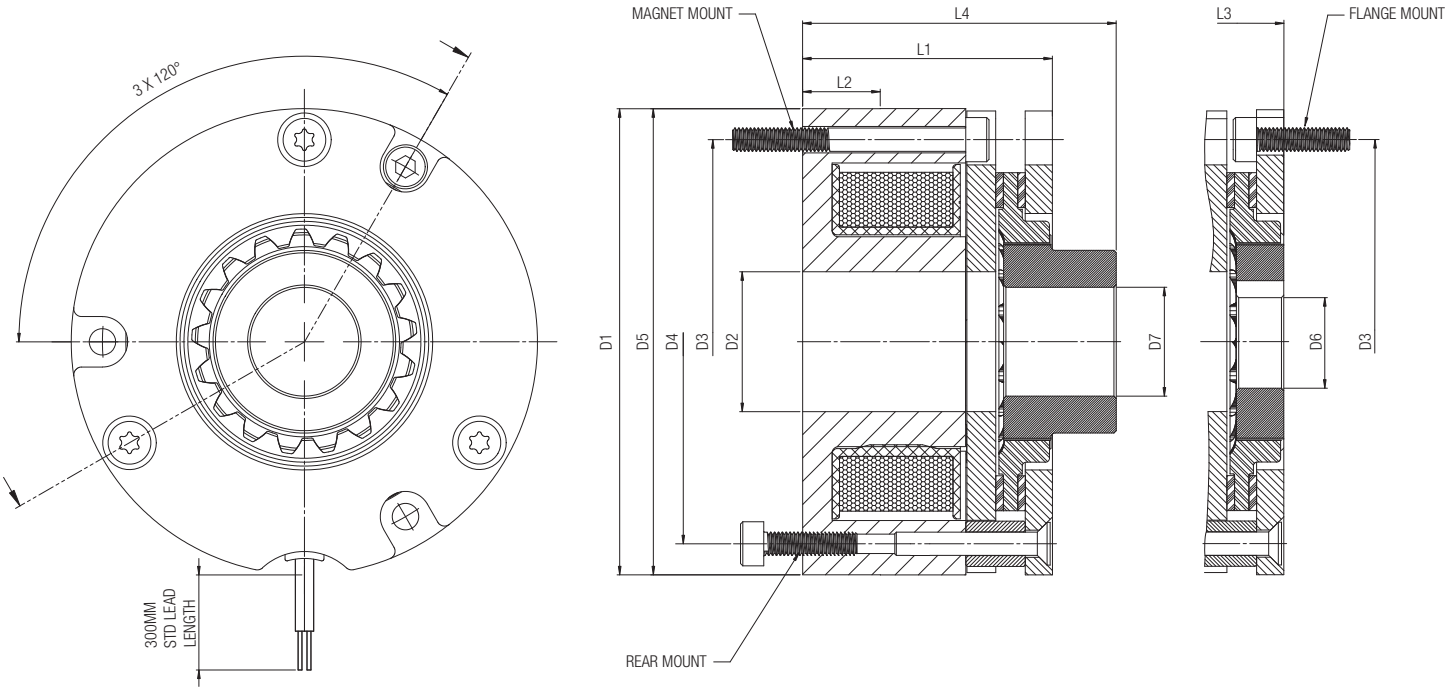
[2] – Engage time with typical flyback diode suppression circuit.

*Additional performance characteristics available, please contact Warner Electric for details.



Exploded View

Dimensions



Unit	Outside Diameter D1 Inch (mm)	Length L1 Inch (mm)	Through Bore D2 Inch (mm)	Mounting PCD & Fastener Type [1]			Location Diameter D5 x L2 Inch (mm)	Hub Bore (Keyway) [2] [3]		Overall Length with Keyway Hub [2] L3 Inch (mm)	Hub Bore (Interference) [2]		Overall Length with Interference Hub[2] L4 Inch (mm)
				D3 Inch (mm)	D4 Inch (mm)	Type (US) [Metric]		D6 Std. Inch (mm)	D6 Max. Inch (mm)		D7 Std. Inch (mm)	D7 Max. Inch (mm)	
SMB060	1.77 (45)	1.26 (31.9)	0.45 (11.5)	1.56 (39.5)	1.52 (38.5)	(3x#4) [3xM3]	1.772(h8) x 0.4 (45(h8) x 10)	0.31 (8)	≤ 5/16" (≤8)	1.39 (35.2)	0.394 (10)	≤ 3/8" (≤10.5)	1.52 (38.6)
SMB080	2.36 (60)	1.27 (32.2)	0.71 (18)	2.05 (52)	2.05 (52)	(3x#4) [3xM3]	2.362(h8) x 0.4 (60(h8) x 10)	0.47 (12)	≤ 1/2" (≤12)	1.27 (32.2)	0.551 (14)	≤5/8" (≤15.5)	1.58 (40.2)
SMB090	2.76 (70)	1.47 (37.3)	1.18 (30)	2.48 (63)	2.48 (63)	(3x#6) [3xM4]	2.756(h8) x 0.4 (70(h8) x 10)	0.59 (15)	≤ 5/8" (≤17)	1.47 (37.3)	0.591 (15)	≤ 3/4" (≤20)	1.47 (37.3)
SMB105	3.15 (80)	1.41 (35.9)	1.18 (30)	2.83 (72)	2.81 (71.5)	(3x#6) [3xM4]	3.145(h8) x 0.4 (80(h8) x 10)	0.79 (20)	≤ 3/4" (≤21)	1.42 (36.1)	0.787 (20)	≤ 1" (≤25)	1.83 (46.6)
SMB130	4.02 (102)	1.54 (39.1)	1.69 (43)	3.54 (90)	3.54 (90)	(3x#6) [3xM4]	4.016(h8) x 0.4 (102(h8) x 10)	0.87 (22)	≤ 1" (≤25)	1.54 (39.1)	0.866 (22)	≤ 1 1/4" (≤32)	1.54 (39.1)
SMB155	4.72 (120)	1.73 (44.1)	2.17 (55)	4.41 (112)	4.25 (108)	(3x#12) [3xM5 / 4xM5]	4.724(h8) x 0.4 (120(h8) x 10)	0.98 (25)	≤ 1 1/4" (≤32.5)	1.74 (44.1)	0.984 (25)	≤ 1 1/2" (≤40)	1.74 (44.1)

[1] – Imperial screw types allowed for magnet and flange mount; Alternative PCDs & screw types available

[2] – Bespoke hub designs available to achieve increased/decreased bore and overall lengths.

[3] – Keyway to ANSI B17.1 and to DIN: 6885; Alternative & non-standard sizes available

Application Data Form

Email or Fax to: Warner Electric | Customer Service and Engineering

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Email: info@warnerelectric.com
Phone: +1-860-238-4783
Fax: +1-815-389-2582

Europe:
Email: info@warnerelectric.eu
Phone: +44 (0) 1356 602000
Fax: +44 (0) 1356 602060

CONTACT INFORMATION

Name: _____ Date: _____

Email: _____ Phone: _____

Company: _____ Location: _____

ENQUIRY INFORMATION

Size Selection: ☐ 060 ☐ 080 ☐ 090 ☐ 105 ☐ 130 ☐ 155

Electrical System: ___ Operating Voltage ___ Max VDC ___ Min VDC

Mounting Type: ☐ Rear Mount ☐ Magnet Mount ☐ Flange Mount

Hub Type & Size: ☐ Standard Hub ☐ Custom Hub ☐ No Hub

☐ Keyway ☐ Interference Fit

___ Bore (Please specify inch or mm)

Application: ☐ Static ☐ Dynamic ☐ Both

☐ Servo motor ☐ Other: _____

___ Motor Power (kW) ___ Speed (rpm) ___ Inertia (Please specify lb.in2 or kg.m2)

___ Min Temperature ___ Max Temperature (Please specify °F or °C)

ADDITIONAL APPLICATION NOTES:

Inform us of any details of brake requirements; dynamic braking, backlash, lifetime, response time, etc.

Notes:

WARNER ELECTRIC™

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