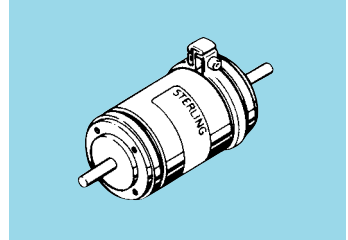
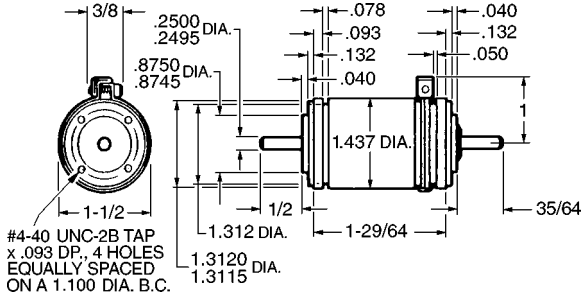


■ 1-7/16 INCH OUTSIDE DIAMETER

■ PAT. NO. 2,892,357



**S** Precision  
Component

**CATALOG NUMBER DESIGNATION:**

**S 9 1 1 5 A - T 6 0 2 3 -**

Insert Dash No. from table below.

Example: S9115A-T6023-16 has a 45.75: 1 ratio.

**SPECIFICATIONS:**

**Maximum Backlash** – 0°30'

**Maximum Starting Torque** – .01 oz. in.

**Rated Output Torque** – 40 oz. in.

- NOTES:** (1) "S" indicates output rotates in the same direction as input; "R" denotes opposite rotation.  
(2) Ball bearings used throughout.

Dash No.	Ratio To 1	Rotation
-01	7.91	S
-02	9.17	S
-03	10.15	S
-04	13.29	S
-05	14.08	S
-06	15.39	S
-07	18.00	S
-08	20.62	S
-09	25.71	R
-10	29.45	R
-11	29.81	R
-12	33.00	R
-13	34.14	R
-14	37.80	R
-15	43.20	R
-16	45.75	R
-17	49.48	R
-18	50.00	R
-19	52.40	R
-20	57.27	R
-21	58.50	R
-22	67.00	R
-23	76.74	R
-24	83.57	S
-25	95.71	S
-26	96.89	S
-27	107.25	S
-28	109.62	S
-29	110.97	S
-30	122.83	S

Dash No.	Ratio To 1	Rotation
-31	127.09	S
-32	140.40	S
-33	140.68	S
-34	148.69	S
-35	160.80	S
-36	162.50	S
-37	170.29	S
-38	184.16	S
-39	186.11	S
-40	190.13	S
-41	195.04	S
-42	213.15	S
-43	217.75	S
-44	249.39	S
-45	285.63	S
-46	311.07	R
-47	356.27	R
-48	360.65	R
-49	399.21	R
-50	408.04	R
-51	413.05	R
-52	457.21	R
-53	473.07	R
-54	522.60	R
-55	523.65	R
-56	553.45	R
-57	598.53	R
-58	604.86	R
-59	633.86	R

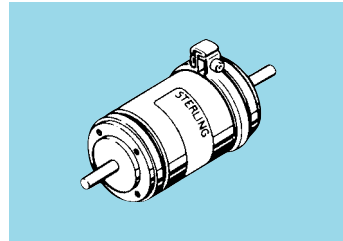
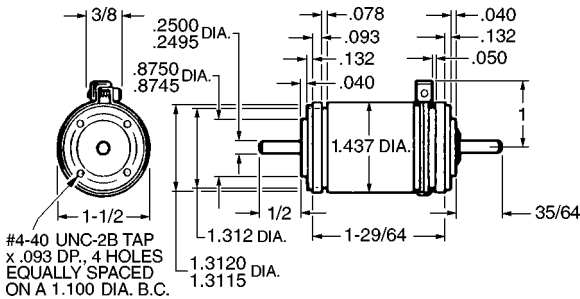
Dash No.	Ratio To 1	Rotation
-60	685.50	R
-61	692.75	R
-62	707.69	R
-63	725.96	R
-64	793.40	R
-65	810.51	R
-66	928.28	R
-67	1063.16	R
-68	1010.98	S
-69	1172.11	S
-70	1297.43	S
-71	1698.45	S
-72	1798.71	S
-73	1965.80	S
-74	2299.98	S
-75	3285.69	R
-76	3763.10	R
-77	3809.35	R
-78	4216.64	R
-79	4362.84	R
-80	4829.31	R
-81	5519.96	R
-82	5845.79	R
-83	6322.01	R
-84	6388.85	R
-85	6695.18	R
-86	7317.14	R
-87	7474.95	R
-88	8561.05	R

Zero backlash, lower backlash, exact ratios, etc., are available on special order.

For additional information, see preceding technical data and special speed reducer pages.

■ 1-7/16 INCH OUTSIDE DIAMETER

■ PAT. NO. 2,892,357



### SPECIFICATIONS:

Maximum Backlash – 0°30'

Maximum Starting Torque – .01 oz. in.

Rated Output Torque – 40 oz. in.

### CATALOG NUMBER DESIGNATION:

S 9 1 1 5 A - T 6 0 2 3 A -

Insert Dash No. from table below.

Example: S9115A-T6023A-16 has a 43.19: 1 ratio.

- NOTES:** (1) "S" indicates output rotates in the same direction as input; "R" denotes opposite rotation.  
(2) Ball bearings used throughout.

Dash No.	Ratio To 1	Rotation
-01	5.05	S
-02	6.48	S
-03	8.48	S
-04	9.82	S
-05	12.11	R
-06	14.02	R
-07	15.55	R
-08	17.99	R
-09	20.35	R
-10	23.56	R
-11	27.26	R
-12	29.07	S
-13	33.65	S
-14	37.31	S
-15	38.95	S
-16	43.19	S
-17	48.85	S
-18	49.98	S
-19	56.53	S
-20	65.43	S

Dash No.	Ratio To 1	Rotation
-21	75.73	S
-22	69.78	R
-23	80.76	R
-24	89.55	R
-25	93.47	R
-26	103.64	R
-27	108.19	R
-28	117.23	R
-29	119.96	R
-30	135.68	R
-31	138.84	R
-32	157.04	R
-33	181.76	R
-34	210.37	R
-35	193.83	S
-36	224.34	S
-37	248.75	S
-38	259.65	S
-39	287.90	S
-40	300.52	S

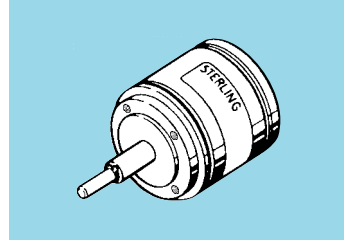
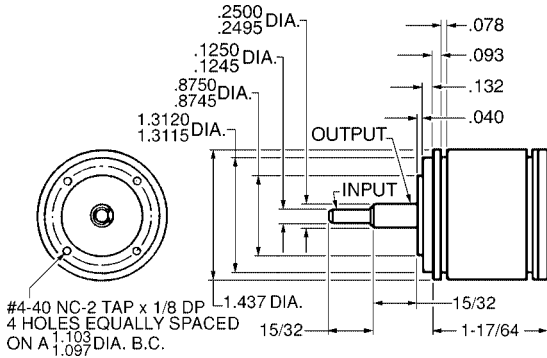
Dash No.	Ratio To 1	Rotation
-41	325.63	S
-42	333.22	S
-43	376.89	S
-44	385.67	S
-45	436.21	S
-46	504.88	S
-47	584.35	S
-48	538.41	R
-49	623.16	R
-50	690.96	R
-51	721.25	R
-52	799.73	R
-53	834.78	R
-54	904.53	R
-55	925.61	R
-56	1046.91	R
-57	1071.31	R
-58	1211.71	R
-59	1402.44	R
-60	1623.19	R

Zero backlash, lower backlash, exact ratios, etc., are available on special order.

For additional information, see preceding technical data and special speed reducer pages.

■ 1-7/16 INCH OUTSIDE DIAMETER

■ PAT. NO. 2,943,507



CATALOG NUMBER DESIGNATION:

S 9 1 1 5 A - T 6 1 2 3 -

Insert Dash No. from table below.

Example: S9115A-T6123-16 has a 45.75: 1 ratio.

**SPECIFICATIONS:**

Maximum Backlash – 0°30'

Maximum Starting Torque – .01 oz. in.

Rated Output Torque – 40 oz. in.

- NOTES:** (1) "S" indicates output rotates in the same direction as input; "R" denotes opposite rotation.  
 (2) Ball bearings used throughout.

Dash No.	Ratio To 1	Rotation
-01	7.91	S
-02	9.17	S
-03	10.15	S
-04	13.29	S
-05	14.08	S
-06	15.39	S
-07	18.00	S
-08	20.62	S
-09	25.71	R
-10	29.45	R
-11	29.81	R
-12	33.00	R
-13	34.14	R
-14	37.80	R
-15	43.20	R
-16	45.75	R
-17	49.48	R
-18	50.00	R
-19	52.40	R
-20	57.27	R
-21	58.50	R
-22	67.00	R
-23	76.74	R
-24	83.57	S
-25	95.71	S
-26	96.89	S
-27	107.25	S
-28	109.62	S
-29	110.97	S
-30	122.83	S

Dash No.	Ratio To 1	Rotation
-31	127.09	S
-32	140.40	S
-33	140.68	S
-34	148.69	S
-35	160.80	S
-36	162.50	S
-37	170.29	S
-38	184.16	S
-39	186.11	S
-40	190.13	S
-41	195.04	S
-42	213.15	S
-43	217.75	S
-44	249.39	S
-45	285.63	S
-46	311.07	R
-47	356.27	R
-48	360.65	R
-49	399.21	R
-50	408.04	R
-51	413.05	R
-52	457.21	R
-53	473.07	R
-54	522.60	R
-55	523.65	R
-56	553.45	R
-57	598.53	R
-58	604.86	R
-59	633.86	R

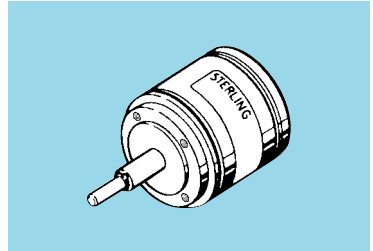
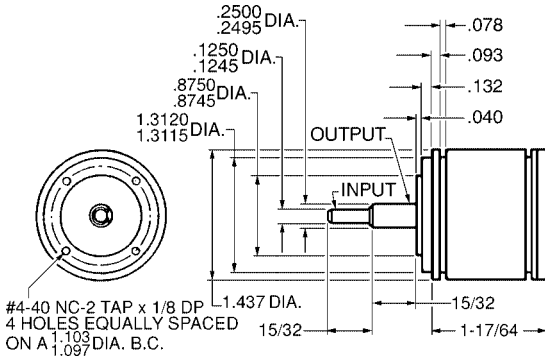
Dash No.	Ratio To 1	Rotation
-60	685.50	R
-61	692.75	R
-62	707.69	R
-63	725.96	R
-64	793.40	R
-65	810.51	R
-66	928.28	R
-67	1063.16	R
-68	1010.98	S
-69	1172.11	S
-70	1297.43	S
-71	1698.45	S
-72	1798.71	S
-73	1965.80	S
-74	2299.98	S
-75	3285.69	R
-76	3763.10	R
-77	3809.35	R
-78	4216.64	R
-79	4362.84	R
-80	4829.31	R
-81	5519.96	R
-82	5845.79	R
-83	6322.01	R
-84	6388.85	R
-85	6695.18	R
-86	7317.14	R
-87	7474.95	R
-88	8561.05	R

Zero backlash, lower backlash, exact ratios, etc., are available on special order.

For additional information, see preceding technical data and special speed reducer pages.

■ 1-7/16 INCH OUTSIDE DIAMETER

■ PAT. NO. 2,943,507



**SPECIFICATIONS:**

- Maximum Backlash – 0°30'
- Maximum Starting Torque – .01 oz. in.
- Rated Output Torque – 40 oz. in.

**CATALOG NUMBER DESIGNATION:**

**S 9 1 1 5 A - T 6 1 2 3 A -**

Insert Dash No. from table below.

Example: S9115A-T6123A-16 has a 43.19: 1 ratio.

- NOTES:** (1) "S" indicates output rotates in the same direction as input; "R" denotes opposite rotation.  
(2) Ball bearings used throughout.

Dash No.	Ratio To 1	Rotation
-01	5.05	S
-02	6.48	S
-03	8.48	S
-04	9.82	S
-05	12.11	R
-06	14.02	R
-07	15.55	R
-08	17.99	R
-09	20.35	R
-10	23.56	R
-11	27.26	R
-12	29.07	S
-13	33.65	S
-14	37.31	S
-15	38.95	S
-16	43.19	S
-17	48.85	S
-18	49.98	S
-19	56.53	S
-20	65.43	S

Dash No.	Ratio To 1	Rotation
-21	75.73	S
-22	69.78	R
-23	80.76	R
-24	89.55	R
-25	93.47	R
-26	103.64	R
-27	108.19	R
-28	117.23	R
-29	119.96	R
-30	135.68	R
-31	138.84	R
-32	157.04	R
-33	181.76	R
-34	210.37	R
-35	193.83	S
-36	224.34	S
-37	248.75	S
-38	259.65	S
-39	287.90	S
-40	300.52	S

Dash No.	Ratio To 1	Rotation
-41	325.63	S
-42	333.22	S
-43	376.89	S
-44	385.67	S
-45	436.21	S
-46	504.88	S
-47	584.35	S
-48	538.41	R
-49	623.16	R
-50	690.96	R
-51	721.25	R
-52	799.73	R
-53	834.78	R
-54	904.53	R
-55	925.61	R
-56	1046.91	R
-57	1071.31	R
-58	1211.71	R
-59	1402.44	R
-60	1623.19	R

Zero backlash, lower backlash, exact ratios, etc., are available on special order.

For additional information, see preceding technical data and special speed reducer pages.