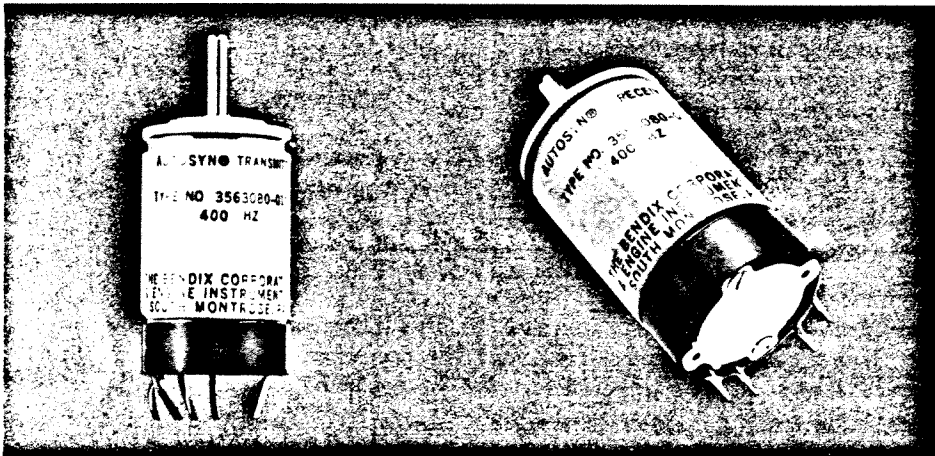


Size 08

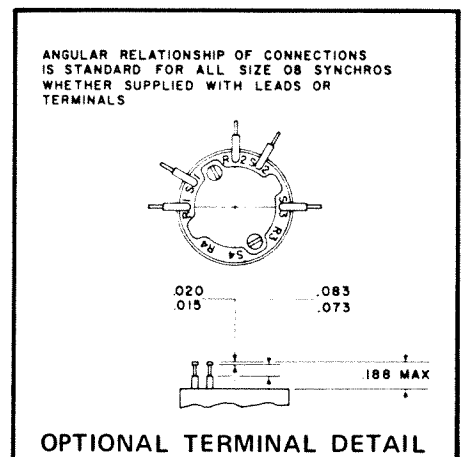
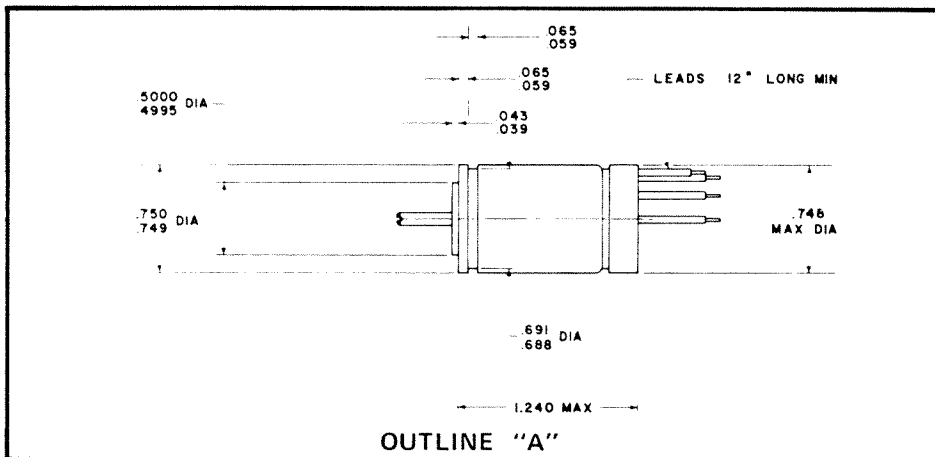
12



GENERAL

The Size 08 Autosyn synchros which are tabulated are considered standard production units. The military designated units have 18" flexible leads and all others have 12" flexible leads. Straight shafts, stainless steel housings and corrosion resistant laminations are considered standard.

Type numbers and additional information concerning Size 08 synchros which incorporate solder type terminals, closer accuracies, various shaft configurations



BENDIX TYPE NUMBER	MILITARY TYPE NUMBER	SYNCHRO FUNCTION	MILS-20708/	PRI/SEC VOLTS (400 HZ)	PRIMARY WINDING	INPUT		ACCURACY	
						CURRENT (AMPERES)	POWER (WATTS)	MAX. ERROR	ERROR SPREAD
3563080-0039	26V08CX4c	Torque Transmitter	78D	115/11.8	Rotor	0.029	0.74	7	—
3563080-0069		Torque Transmitter		115/11.8	Rotor	0.037	0.95	7	—
3563080-0070		Torque Transmitter		26/11.8	Rotor	0.170	0.92	7	—
3563080-0071		Torque Transmitter		26/11.8	Rotor	0.100	0.47	7	—
3563080-0077		Torque Transmitter		115/18.2	Rotor	0.029	0.74	7	—
3563080-0085		Torque Transmitter		26/11.8	Rotor	0.156	0.94	7	—
3563080-0079		Control Transmitter		26/11.8	Rotor	0.0458	0.26	7	—
3563080-0401		Control Transmitter		26/11.8	Rotor	0.135	0.66	7	—
3563080-0073		Torque Receiver		26/11.8	Rotor	0.100	0.47	—	Note 4
3563080-0075		Torque Receiver		115/18.2	Rotor	0.029	0.74	—	Note 4
3563080-0076	Torque Receiver	115/11.8	Rotor	0.029	0.74	—	Note 4		
3563080-0072	26V08CT4c	Control Transformer	79D	11.8/22.5	Stator	0.0222	0.043	7	—
3563080-0074		Control Transformer		11.8/23.5	Stator	0.087	0.18	7	—
3563080-0195		Control Transformer		11.8/22.5	Stator	0.038	0.087	5	—
3563080-0201		Control Transformer		11.8/22.5	Stator	0.030	0.060	7	—
3563080-0080		Control Transformer		11.8/22.5	Stator	0.0114	0.028	7	—
3563080-0402		Control Transformer		11.8/22.5	Stator	0.0199	0.038	7	—

Size 08

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and other features will be furnished upon request.

Nominal values are listed for all winding characteristics.

HIGH TEMPERATURE UNITS

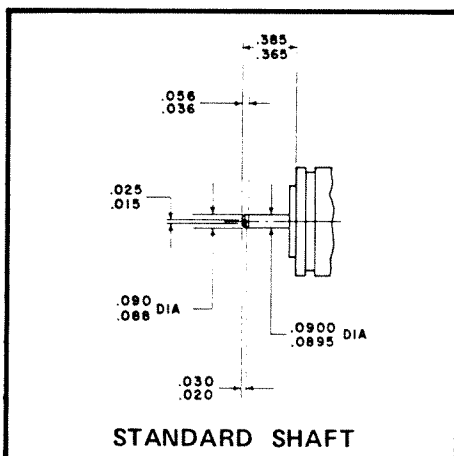
In addition to the standard temperature range, Size 08 synchros are available which will operate up to 180°C.

BRUSHLESS SYNCHROS

HAIRSPRING UNITS

There are times when it is desired to eliminate brushes in synchros in order to provide a solid connection from the external circuit to the rotor. This can be accomplished by the use of hairsprings between the rotor and the external circuit. This type of brushless synchro will have the same electrical characteristics as the conventional unit with brushes.

Tests on these units show millions of oscillations without failure. The normal angular displacement provided on these synchros is $\pm 170^\circ$. On most units, stops can be provided to prevent overstressing the hairsprings.



OTHER SHAFT TOLERANCES:

END PLAY (with reversal of 8 oz. load)
Receiver units 0.002 - 0.004 inches (T.I.R.)

All other units 0.0003 - 0.0008 (T.I.R.)

RADIAL PLAY

(with reversal of 4 oz. load)

Receiver units 0.001 inches max.

All other units 0.0005 inches max.

RUNOUT (measure 1/8 inches from end of shaft) 0.001 inches (T.I.R.)

NOTES:

1. Friction Torque 3/9 (GM-CM) at 25°/-55°C
2. Friction Torque 0.27/0.54 (GM-CM) at 25°/-55°C
3. Friction Torque 0.04 (OZ-IN.) max. at 23°C
4. Receiver Electrical Error 30 minutes spread
5. Unit Weight 1.25 oz.
6. Unit Weight 1.6 oz.
7. Outline "A"
8. Outline "B"

Characteristics – All Units Listed

Temperature Range -55°C to +125°C

Accuracy given in minutes

MAXIMUM NULL VOLTAGE		TYPICAL TORQUE GRADIENT (MG-MM/DEG)	PHASE SHIFT (DEGREES)	IMPEDANCE				DC RESISTANCE		ROTOR INERTIA (GM-CM ²)	NOTES
TOTAL (MILLIVOLTS)	FUNDAMENTAL (MILLIVOLTS)			Z _{RO} (OHMS)	Z _{SO} (OHMS)	Z _{RS} (OHMS)	Z _{SS} (OHMS)	ROTOR (OHMS)	STATOR (OHMS)		
30	—	2400	9.2	874+j3860	9.5+j34	1480+j325	—	687	10.3	0.82	1,6,7
30	—	3000	11.2	693+j3027	6.8+j26	1151+j303	—	456	7.3	0.82	1,6,7
30	—	2800	9.9	32+j150	6.8+j26	57+j14	—	24	7.3	0.82	1,6,7
30	—	2200	7.6	47+j256	11.2+j44	83+j19	—	35	11.8	0.82	1,6,7
50	—	2200	9.2	874+j3860	25+j78	1480+j325	—	687	25.8	0.82	1,6,7
75	—	2200	13.0	38.3+j162	11.3+j29.0	74.7+j22.1	—	30	11.6	0.55	1,5,8
30	—	—	10.1	124+j554	29.9+j95.4	230+j69.5	—	99	33.9	0.55	1,5,8
30	20	—	8.6	36+j189	9.3+j33	70+j20	12.7+j2.5	26	10.1	0.82	3,6,7
—	—	2200	7.6	47+j256	11.2+j44	83+j19	—	35	11.8	0.82	2,6,7
—	—	2200	9.2	874+j3860	25+j78	1480+j325	—	687	25.8	0.82	2,6,7
—	—	2400	9.2	874+j3860	9.5+j34	1480+j325	—	687	10.3	0.82	2,6,7
30	—	—	8.4	623+j2440	87.9+j451	848+j245	—	501	88.9	0.82	1,6,7
30	—	—	9.0	181+j700	23.9+j115	250+j71	—	135	22.9	0.82	1,6,7
30	—	—	10.8	393+j1430	59.3+j259	546+j166	—	334	68.2	0.82	1,6,7
30	—	—	8.2	450+j1850	66+j330	576+j174	—	334	68.2	0.82	1,6,7
30	—	—	9.9	1230+j5200	221+j870	1650+j817	—	898	227	0.55	1,5,8
30	25	—	7.7	623+j2740	97+j504	819+j257	—	470	94.3	0.82	3,6,7

Size 08

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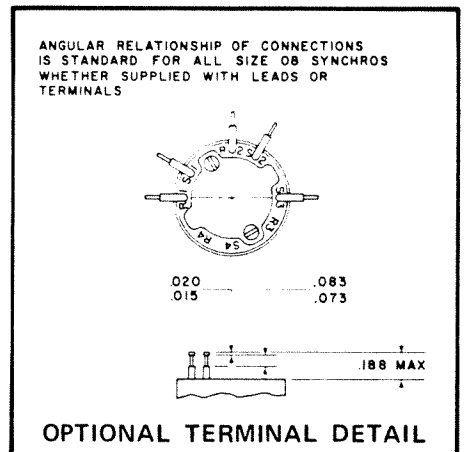
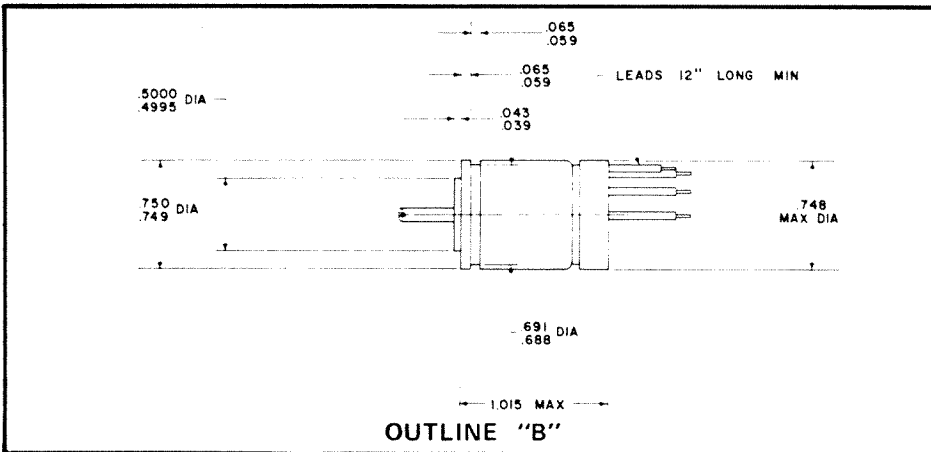
GENERAL

The Size 08 Autosyn synchros which are tabulated are considered standard production units. The military designated units have 18" flexible leads and all others have 12" flexible leads. Straight shafts, stainless steel housings and corrosion resistant laminations are considered standard.

Type numbers and additional information concerning Size 08 synchros which incorporate solder type terminals, closer accuracies, various shaft configurations

and other features will be furnished upon request.

Nominal values are listed for all winding characteristics.



BENDIX TYPE NUMBER	MILITARY TYPE NUMBER	SYNCHRO FUNCTION	MILS- 20708/	PRI/SEC VOLTS (400 HZ)	PRIMARY WINDING	INPUT		ACCURACY	
						CURRENT (AMPERES)	POWER (WATTS)	MAX. ERROR	ERROR SPREAD
3563083-0010	26 V08 CDX4c	Control Differential Transmitter	80D	11.8/11.5	Stator	0.087	0.18	7	—
3563083-0011		Control Differential Transmitter		11.8/11.8	Stator	0.030	0.060	7	—
3563083-0012		Control Differential Transmitter		11.8/11.8	Stator	0.087	0.18	7	—
3563083-0013		Control Differential Transmitter		11.8/11.8	Stator	0.144	0.31	7	—
3563083-0014		Control Differential Transmitter		11.8/11.8	Stator	0.039	0.092	7	—
3563083-0026		Control Differential Transmitter		11.8/11.5	Stator	0.108	0.245	5	—
3563083-0101		Control Differential Transmitter		11.8/11.8	Stator	0.092	0.20	7	—
3563082-0023		Resolver		26/11	Rotor	0.037	0.34	7	—
3563082-0024		Resolver		26/13	Rotor	0.0099	0.079	7	—
3563082-0025		Resolver		26/26	Rotor	0.037	0.34	7	—
3563082-0022	Compensated Resolver	8/8.08	Stator	0.008	0.021	5	—		
3563086-0003	—	Transolver	—	11.8/10.7	Stator	0.030	0.060	7	—
3563086-0004		Transolver		11.8/22.5	Stator	0.0222	0.043	7	—
3563089-0008	—	Transolver	—	11.8/22.5	Rotor	0.027	0.064	7	—
3563089-0009		Transolver		11.8/20.5	Rotor	0.080	0.20	7	—

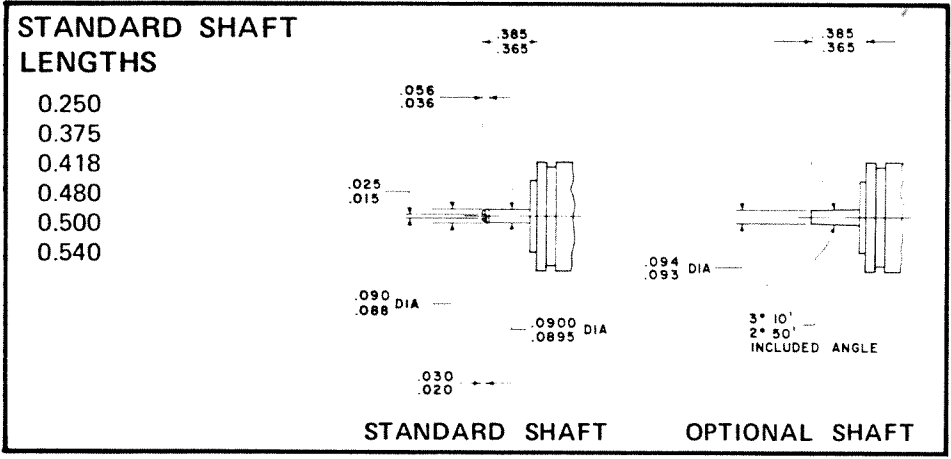
Size 08

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NOTES:

1. Friction Torque 3/9 (GM-CM) at 25°/-55°C
2. Friction Torque 0.04 (OZ-IN.) max. at 23°C
3. 3 Phase Rotor Winding, 2 Phase Stator Winding
4. 3 Phase Stator Winding, 2 Phase Rotor Winding
5. Compensated Winding $Z_{CO} 440+j1020$, Secondary Voltage 8.0 volts
6. Unit Weight 1.25 oz.
7. Unit Weight 1.6 oz.
8. Unit Weight 1.7 oz.
9. Outline "A"
10. Outline "B"
11. Outline "A" except unit length 1.301 max.
Accuracy given in minutes



OTHER SHAFT TOLERANCES:

- END PLAY** (with reversal of 8 oz. load)
Receiver units 0.002 - 0.004 inches (T.I.R.)
All other units 0.0003 - 0.0008 inches (T.I.R.)
- RADIAL PLAY**
(with reversal of 4 oz. load)
Receiver units 0.001 inches max.
All other units 0.0005 inches max.
- RUNOUT** (measured 1/8 inches from end of shaft) 0.001 inches (T.I.R.)

MAXIMUM NULL VOLTAGE		TYPICAL TORQUE GRADIENT (MG-MM/DEG)	PHASE SHIFT (DEGREES)	IMPEDANCE				DC RESISTANCE		ROTOR INERTIA (GM-CM ²)	NOTES
TOTAL (MILLIVOLTS)	FUNDAMENTAL (MILLIVOLTS)			Z _{RO} (OHMS)	Z _{SO} (OHMS)	Z _{RS} (OHMS)	Z _{SS} (OHMS)	ROTOR (OHMS)	STATOR (OHMS)		
30	—		9.1	31.7+j123	23.9+j115	44.4+j13		33.9	22.9	0.82	1,7,9
30	—		8.3	87.7+j367	66+j330	120+j30		95.1	68.2	0.82	1,7,9
30	—		9.1	32.4+j129	23.9+j115	45.2+j13		34.9	22.9	0.82	1,7,9
30	—		8.8	21.2+j81	14.9+j69	28.3+j6.0		22.1	12.8	0.82	1,7,9
30	—		10.3	85.8+j296	61.9+j256	113+j35.3		88	60.8	0.55	1,6,10
30	—		10.9	29.3+j104	20.2+j92	42.7+j12.7		34.9	22.9	0.82	1,7,9
30	20		9.5	26.4+j123	23.9+j108	39+j12.7		26.6	24.5	0.82	2,7,9
30	—		17.0	245+j655	33.4+j144	320+j62		214	25.4	0.82	1,7,9
30	—		15.0	815+j2500	213+j770	1187+j275		678	168	0.82	1,7,9
30	—		17.0	245+j655	217+j807	320+j62		214	177	0.82	1,7,9
8	—		16.2	422+j1189	337+j936	649+j179		340	280	0.82	1,5,8,11
30	—		8.2	143+j395	66+j330	181+j36.6		119	68.2	0.82	1,4,7,9
30	—		8.4	870+j2440	87.9+j451	1095+j245		748	88.9	0.82	1,4,7,9
30	—		11.0	87.7+j367	539+j2035	142+j44		95.1	410	0.82	1,3,7,9
30	—		11.9	31.7+j123	173+j594	53+j14.4		33.9	146	0.82	1,3,7,9

Size 10

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GENERAL

The Bendix Size 10 Autosyn Synchros which are tabulated have 12 inch flexible leads, straight shafts, aluminum housings and standard accuracies as listed.

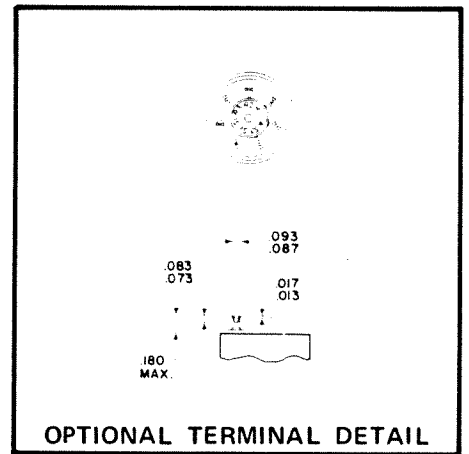
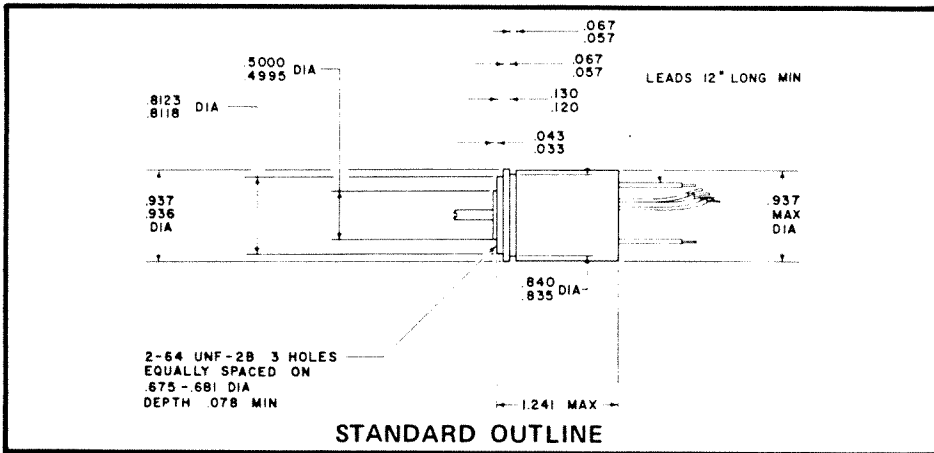
Type numbers and additional information concerning Size 10 Synchros with terminal blocks, stainless steel housings, higher accuracies, different shaft configurations, double ended shafts or other features to meet your needs will be supplied upon request.

Nominal values are given for all winding characteristics.

BRUSHLESS SYNCHROS

HAIRSPRING UNITS

There are times when it is desired to eliminate brushes in synchros in order to provide a solid connection from the external circuit to the rotor. This can be accomplished by the use of hairsprings between the rotor and the external circuit. This type of brushless synchro will have the same electrical character-



BENDIX TYPE NUMBER	MILITARY TYPE NUMBER	SYNCHRO FUNCTION	MILS-20708/	PRI/SEC VOLTS (400 HZ)	PRIMARY WINDING	INPUT		ACCURACY	
						CURRENT (AMPERES)	POWER (WATTS)	MAX. ERROR	ERROR SPREAD
3563100-3070		Torque Transmitter		26/11.8	Rotor	0.105	0.47	-	14
3563100-3071		Torque Transmitter		26/11.8	Rotor	0.146	0.62	-	14
3563100-3072		Torque Transmitter		26/11.8	Rotor	0.171	0.76	-	14
3563100-3073		Torque Transmitter		115/11.8	Rotor	0.033	0.64	-	14
3563100-3074		Torque Transmitter		115/90	Rotor	0.033	0.64	-	14
3563100-3075		Torque Receiver		26/11.8	Rotor	0.105	0.47	-	Note 8
3563100-3076		Torque Receiver		26/11.8	Rotor	0.146	0.62	-	Note 8
3563100-3077		Torque Receiver		26/11.8	Rotor	0.171	0.76	-	Note 8
3563100-3078		Torque Receiver		115/11.8	Rotor	0.033	0.64	-	Note 8
3563100-3079		Torque Receiver		115/90	Rotor	0.033	0.64	-	Note 8
3563100-3080		Torque Transmitter		26/11.8	Rotor	0.154	0.85	-	20
3563100-3081		Torque Transmitter		115/11.8	Rotor	0.039	0.80	-	20
3563100-0062		Torque Transmitter		26/11.8	Rotor	0.226	1.86	-	14
3563100-0112		Torque Transmitter		26/11.8	Rotor	0.153	0.94	-	14
3563100-0027		Control Transformer		11.8/19.1	Stator	0.020	0.085	-	14
3563100-0023		Control Transformer		11.8/19.2	Stator	0.078	0.31	-	14
3563100-0065		Control Transformer		11.8/21.2	Stator	0.070	0.18	-	14
3563100-0069		Control Transformer		11.8/20.3	Stator	0.023	0.066	-	14
3563103-0007		Control Differential Transmitter		11.8/10.5	Stator	0.070	0.22	-	15
3563102-0004		Resolver		26/11.8	Rotor	0.040	0.50	18	-
3563102-0002		Resolver		26/11.8	Rotor	0.038	0.40	18	-