



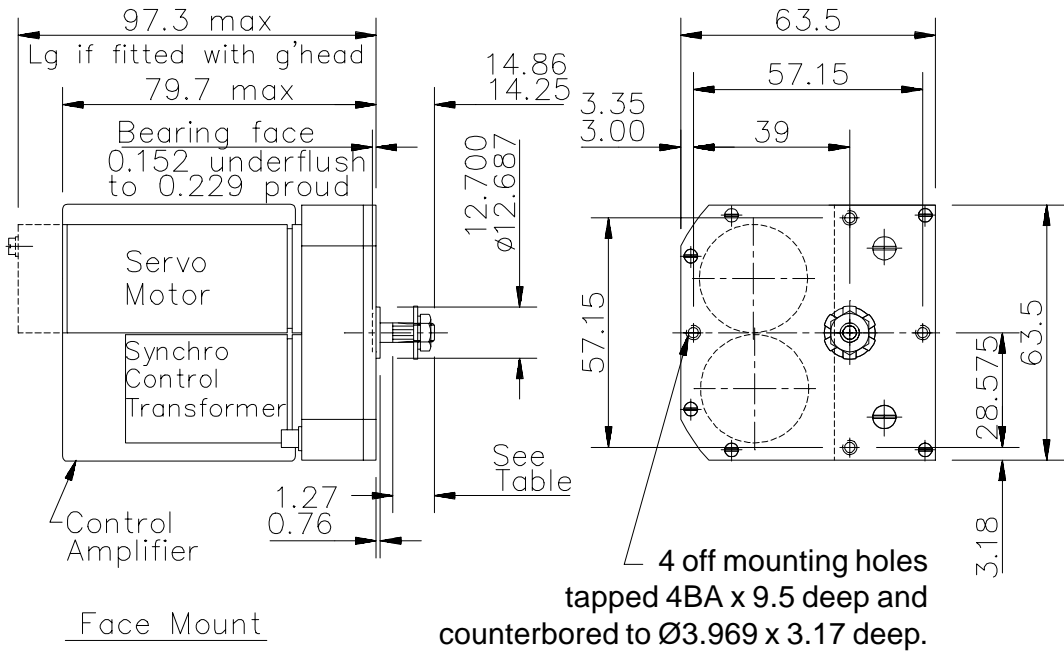
METRIC

Miniservo

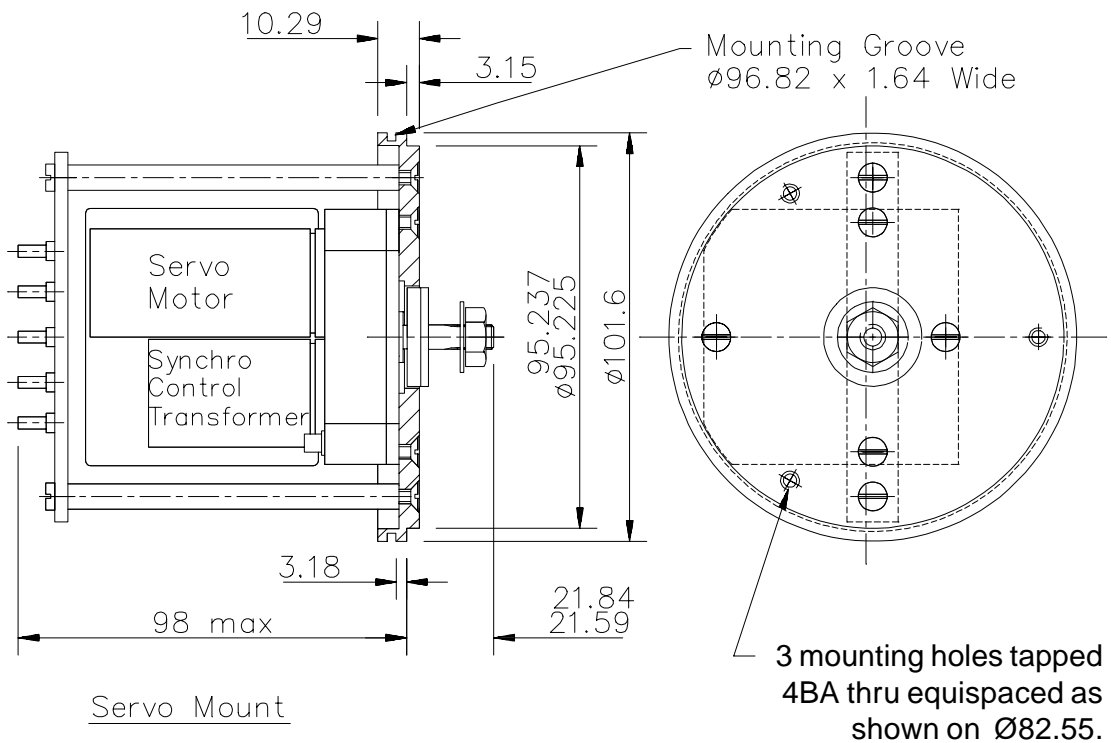
All dimensions in mm
 General tolerances +/- 0.13mm
 Manufactured under licence from
 Thorn EMI Electronics

Associated Products
 Synchro gears, size 11
 Synchro gears, size 23

N.A.T.O. stock number 5820-99-520-6901



N.A.T.O. stock number 5990-99-527-1439



Standard Product Sales : ☎ +44 (0)1484 601060 📠 +44 (0)1484 601061

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Part Number Selection			
Part Number	Part Name	Type	Output Shaft Size
5820-99-520-6901	Miniservo	Face Mount	Size 11
5990-99-527-1439	Packaged Miniservo	Servo Mount	Size 23

Output Shaft Details		
Spline Data	Size.11 Shaft	Size.23 Shaft
No. of teeth	21	22
Diametral pitch	120	96
Pitch circle diameter	4.39 / 4.45	5.77 / 5.82
Root diameter	3.94 max	5.21 max
Length of full depth	6.55 / 6.94	7.6 / 8.2
Plain dia of output	4.750 / 4.755	6.104 / 6.109
Pressure angle	20 deg	20 deg
Thread Data		
Form of thread	10-32 UNF	1/4-28 UNF
Thread outside dia	4.65 / 4.70	6.05 / 6.11
Length of thread	4.95 / 5.34	6.73 / 7.14

Product summary

The miniservo is an a.c. packaged servo system which provides mechanical power at its output shaft, and may be used to position a load as dictated by a synchro or magflip control transmitter.

It provides remote indication of an angular function with output torque to drive the pointer of an indicator, a potentiometer, a digital encoder or similar.

Performance characteristics

Power supply:	115v +/-8%, 390-430Hz single phase. Power consumption, typically 8 watts, 12 watts max (stalled)
Input signal :	Synchro control transmitter or magflip transmitter 90v line to line (26v line to line can be provided if required)
Static error :	Control transformer error +/- 7 arc minutes Anti-backlash gear error +/- 2.9 arc minutes Coulomb friction (unloaded) +/- 4 arc minutes Tacho generator residual +/- 0.75 arc minutes Total error +/- 15 arc minutes
Rate error :	Following at constant velocity unloaded, 2.2mins/rpm Static error at 25°C, +/- 15 arc minutes
Max following speed :	90 rpm unloaded
Stall torque :	0.24Nm +/- 25%
Stiffness :	0.021Nm/arc min
Load inertia :	2.7 x 10 ⁻⁴ kg m ² max
Shaft axial loading :	+/- 2.22 N
Gear ratio :	From motor to output and control transformer 1000:17
Operating temperature :	Typically -40°C to +55°C when used as a complete package (-40°C to +80°C remote mount amplifier)
Weight :	0.9kg

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