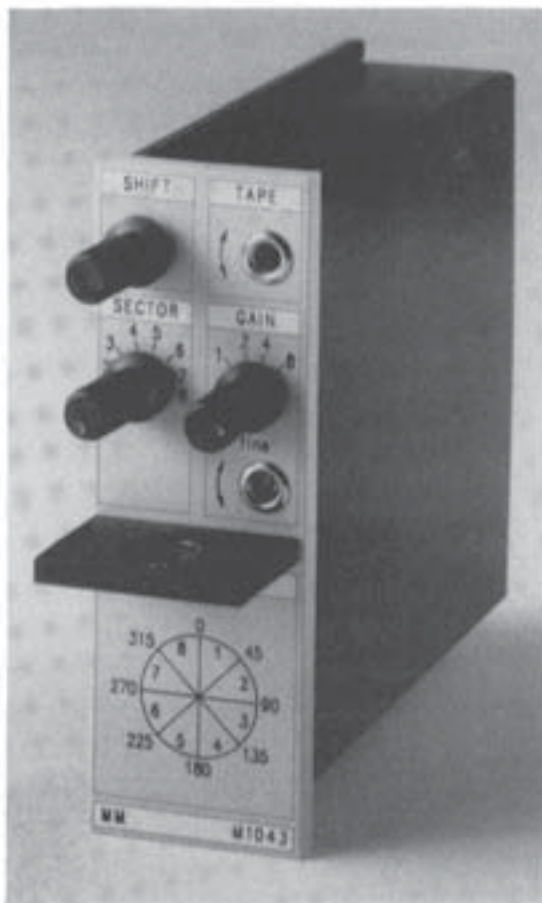


M1043 Synchro/D.C. Converter



The M1043 produces a D.C. output signal proportional to the angular position of a synchro or resolver.

The converter has an accuracy of ± 0.5 degrees and features include the selection of eight sectors and a shift control allowing the zero to be set to any value between 0 to 360 degrees. There is also a 4 position switch giving gain values of x1, x2, x4, and x8 thus allowing full resolution with relatively small angular deflections, e.g. $\pm 45^\circ$.

The heart of the system is a hybrid resolver-to-digital converter module with 12 bit (1 part in 4096) resolution. This combines typical maximum tracking rates of 50 revs/sec. with high resolution, high accuracy and fast settling times (typically 60 milliseconds).

Applications include radar antenna position information, C.N.C. machine tool positional control, motor control, robot axis control, gyros and general aircraft and marine use.

Specification

Input

Input configuration: S1, S2, S3, R1, R2 Synchro
S1, S2, S3, S4, R1, R2 Resolver

Input Impedance: 200K Ohms

Input range: 11.8 to 90V a.c.

Frequency: 50Hz to 400Hz

General

Noise: Less than 0.1% (r.t.o.)

Sector switch: 8 ranges, 0 - 360° in 45° sectors

Gain: 4 ranges, 1, 2, 4 and 8 with interpolate control.

Shift: 0 - 45°

Tape: Fine voltage gain

Voltage output: Up to ± 10 v D.C.

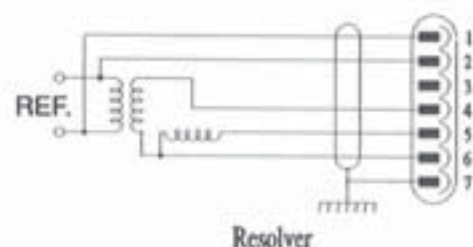
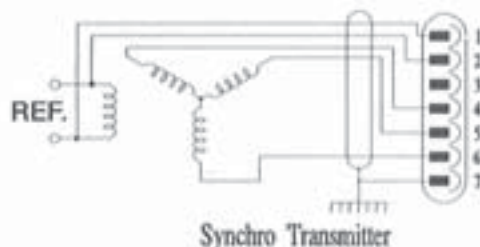
Source Impedance: 0.5 ohms.

Current output: ± 10 mA into 120 ohms.

Source Impedance: 250 ohms.

Package: Double width M1000 series module

Typical Inputs



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