



"3 or 4 Digit"

SYNCHRO/RESOLVER TO BCD CONVERTER

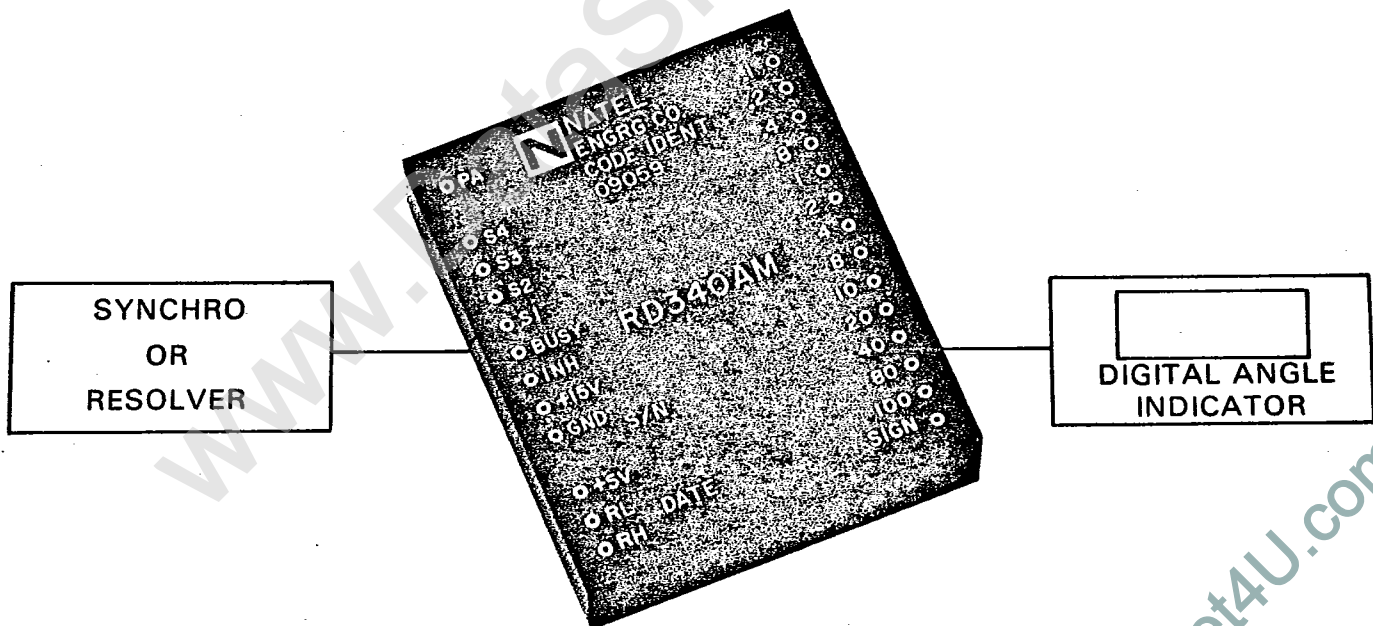
FEATURES

- Accuracy ± 6 min (4 digit)
 ± 30 min (3 digit)
- Tracking $1440^\circ/\text{sec}$
- Unipolar or Bipolar
- Reference/Stator Transformer Isolation
- Optional External Offset
- Optional Directional Indication

DESCRIPTION

Series 330 to 341 tracking synchro-to-BCD converters provide 3 or 4 digit outputs for angular displacements of 0 to 359.9° or $\pm 179.9^\circ$ (4-digit models). These converters are pin-compatible with industry standards and are used for digital displays of angular information from either 3-wire synchros or 4-wire resolvers.

These units feature high resolution and accuracy at a low cost. The conversion technique includes a type II servo loop that provides no lag and zero velocity error up to $1440^\circ/\text{sec}$. TTL, LPTTL and CMOS output options are available. Commercial, military and hi-rel versions are offered.



SPECIFICATIONS**ELECTRICAL**

| | | |
|---|--|--|
| Input/Reference (I): (Vrms @ 400 Hz xfmr isolated) | 11.8/26 11.8/115 26/26 26/115 90/115 | Code (1) (2) (3) (5) (9) |
|---|--|--|

Tracking Rate: 1440°/sec

Digital Output: 3 or 4 digit BCD

Model/Range: SD330/±179°
SD331/0 - 359°
SD340/±179.9°
SD341/0 - 359.9°

Conversion Time: 0.5 μsec

Power Supply: +5 V-dc @ 450 mA
+15 V-dc @ 50 mA

| | | |
|--|-----------------|---------------------------|
| Frequency (F): (For 60 Hz operation, separate xfmr module... STM-60...is required) | 60 Hz 400 Hz | Code (6) (4) |
|--|-----------------|---------------------------|

ENVIRONMENTAL

| | | |
|---|---|--|
| Operating Temperature Range/Reliability (T): | 0 to 70 C/Commercial -55 to 85 C/Military -55 to 105 C/Military 0 to 70 C/MIL-STD-883C -55 to 105 C/MIL-STD-883C 0 to 70 C/MIL-STD-883B -55 to 105 C/MIL-STD-883B | Code (1) (2) (3) (5) (7) (8) (9) |
|---|---|--|

Storage: -55 to 125 C

ORDERING INFORMATION**Synchro Format:**

SD XXX - I E I

Input/Reference Code
Frequency Code
Temperature/Reliability Code
Model Number

Resolver Format:

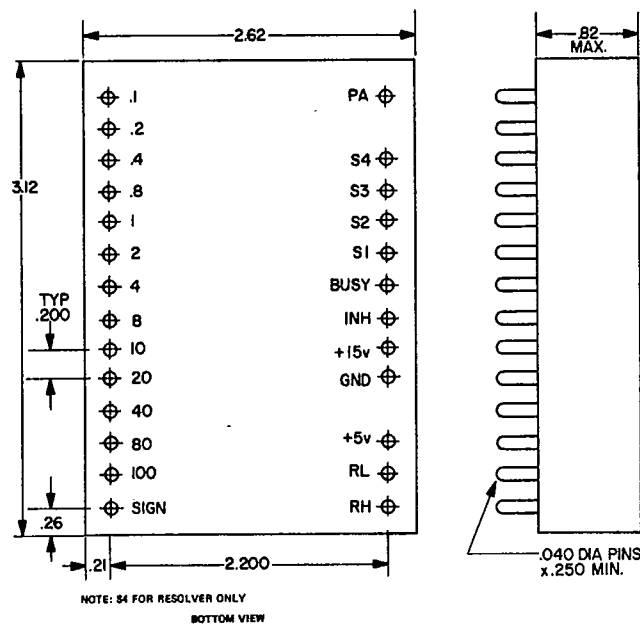
RDXXX - T F I

All codes are the same as for Synchro Format

MECHANICAL

Size: 2.625" x 3.125" x 0.82

Mounting: PCB plug-in with pins at .20" spacing.



Pin designations given are for model RD340. For pin designations on other models, consult Natel.

PA is the direction or offset option.