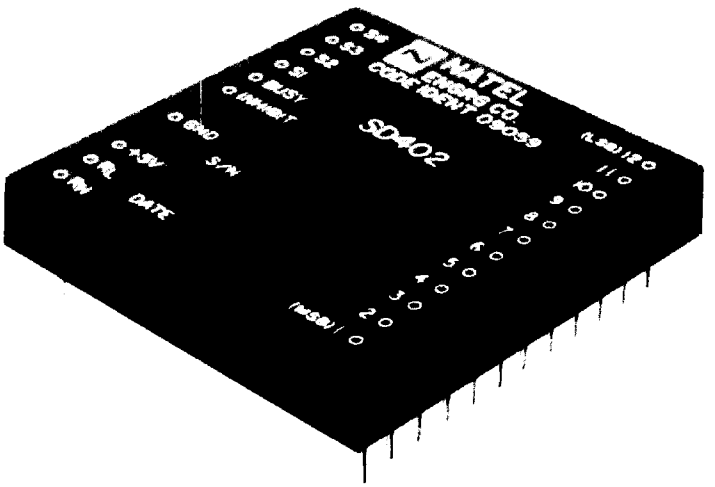
"Miniature" 12 BIT TRACKING SYNCHRO/RESOLVER TO DIGITAL CONVERTER

MODEL SD402/SD602

- 2.6" x 2.6" x .42"
- Pin compatible with standard S/D converters
- Requires 5VDC only @1.5 W
- Reference/Stator inputs transformer isolated
- 12 bit resolution
- 15 minute accuracy
- 7,200°/sec tracking rate (20 CPS)
- Insensitive to ampl/freq variations
- TTL output (also available in LSTTL)
- Low Cost, SD402 comml. @$199.00



NATES009

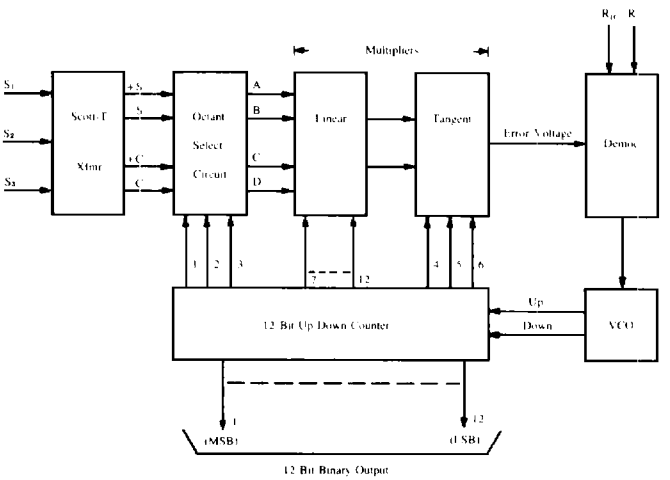
Series SD402 are continuous tracking type Synchro/Resolver to Digital Converters providing 12 bit parallel binary angle information. The SD402 uses self-nulling, error-free tracking Type II servo loop; thereby providing no lag and zero velocity error up to 7,200°/sec. Accuracy is maintained with 10% variation in synchro amplitude and frequency.

The synchro or resolver inputs and reference are isolated. The isolation transformers are an integral part of the converter for 400 Hz operation. Although smaller in size the SD402 is compatible with existing sockets.

Only a single +5VDC supply @300 mA is required, which makes it very convenient in digital applications.

The digital data is constantly available except during a converter update condition indicated by a logic high signal on the converter busy line. Updating can be prevented by applying a logic "low" on the inhibit line. The converter output is in the hold-mode as long as an inhibit signal exists.

The SD402 is packaged as an encapsulated plug-in module available in (a) commercial, (b) military temperature, and (c) 883, hi-rel versions.



ELECTRICAL

Input:

Synchro:	11.8	VRMS @400 Hz
(xfmr isolated)	90	VRMS @400 Hz
Resolver:	11.8	VRMS @400 Hz
(xmfr isolated)	90	VRMS @400 Hz
	26	VRMS @400 Hz
Reference:	26	VRMS @400 Hz
(xfmr isolated)	115	VRMS @400 Hz

Input/Ref. Z: 100K

Power Supply: +5VDC @300 mA

ENVIRONMENTAL:

Temperature Range:

Operating: 0°C to 70°C std.
-55° to 105°C optional

Storage: -55°C to +125°C

MECHANICAL

Size: 2.625" x 2.625" x 0.42"

Mounting: PCB plug-in or solder interconnect pins on .2" spacing

Busy/Input Signals
Busy = "0" Data OK
= "1" Busy

Inhibit Input
Freeze Data = "0"
Convert as needed = "1"

Specify SD602, a complete synchro to digital converter, including Scott-tee (isolation) xfmrs.

Size of SD602, 2.62" x 2.62" x 0.82"

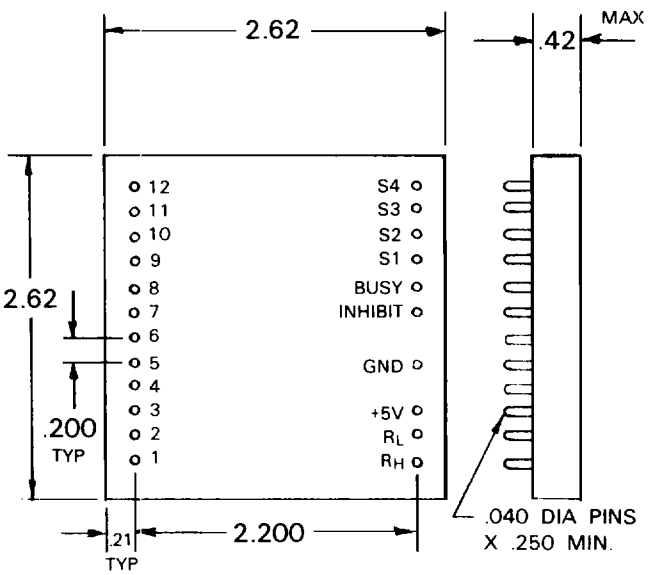
[redacted]

-55°C to 105°C temp. range. — add M to P/N
Hi-Rel. 883 components — add MR to P/N
other non-std voltages — contact factory

[redacted]

To order an SD 402, select the proper input and reference voltages in the chart and indicate the proper suffix letter, e.g., RD 402B for resolver to digital converter with 90 VRMS stator & 115 VRMS reference. Add option I.D. letter after P/N as shown above. For 10 bit model, use —10 at the end of the part number.

To order 60 Hz converter with separate xfmr module specify SD402-60 (90 VRMS STATOR and 115 VRMS reference).



BOTTOM VIEW

NOTE: S4 FOR RESOLVER ONLY

P/N	SD402A RD402A	SD402B RD402B	SD402C RD402C	RD402D	RD402E
Synchro/ Resolver Input	11.8 VRMS	90 VRMS	11.8 VRMS	26 VRMS	26 VRMS
Reference Input	26 VRMS	115 VRMS	115 VRMS	26 VRMS	115 VRMS

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